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DEPARTMENT OF DEFENSE HANDBOOK

GLOSSARY FOR TRAINING
(PART 4 OF 4 PARTS)

This Handbook is for guidance only. Do not cite this document as a requirement.

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FOREWORD

1. This handbook is approved for use by all Departments and Agencies of the Department of Defense (DoD).

2. This handbook is intended for guidance only. This handbook cannot be cited as a requirement. If it is, the contractor does not have to comply.

3. MIL-HDBK-29612-4 is Part 4 of 4 Parts. Part 4 provides acronyms and definitions for key terms and abbreviations used in MIL-PRF-29612A, Performance Specification, Training Data Products, and MIL-HDBK-29612 Parts 1, 2, and 3. Definitions are provided for key terms commonly used in training and in the design and development of training data products.

4. Part 1, MIL-HDBK-29612-1, Department of Defense Handbook, Guidance for Acquisition of Training Data Products and Services, provides guidance that may be used by all Services for the preparation of solicitations and evaluation of solicitation responses for training. Part 2, MIL-HDBK-29612-2, Department of Defense Handbook, Instructional Systems Development/Systems Approach to Training and Education, provides guidance to DoD personnel on the Instructional Systems Development (ISD)/Systems Approach to Training (SAT) process and the development of training materials. Part 3, MIL-HDBK-29612-3, Department of Defense Handbook, Development of Interactive Multimedia Instruction (IMI), contains guidance on the application of the IMI development process.

5. This handbook supersedes MIL-HDBK-1379-4, Glossary for Training (Part 4 of 4 Parts).

6. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Air Warfare Center Aircraft Division, Code 414100B120-3, Highway 547, Lakehurst, NJ 08733-5100 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

CONTENTS

1. SCOPE

1.1 Scope. This handbook provides acronyms, abbreviations, and definitions of key terms used in the analysis, design, development, implementation and evaluation of training and training data products. Key terms and acronyms used in MIL-PRF-29612 and MIL-HDBK-29612 Parts 1, 2, and 3 are repeated in this handbook to provide a single comprehensive glossary of acronyms and definitions related to military training and Interactive Multimedia Instruction (IMI).

1.2 Application guidance. This handbook is intended for guidance only. This handbook cannot be cited as a requirement. If it is, the contractor does not have to comply.

1.3 How to use this handbook. This handbook contains the glossary and is comprised of acronyms, abbreviations, and definitions of key training terms.

1.3.1 Interrelated terms. At the end of the definition of a term, there may be a reference to another term. If the phrase "Identical to the definition for_____" is used, there is another term in the glossary, that for the context of training, has the same meaning. The phrase "Also called_____" is used to refer to another term, not necessarily listed in the glossary, which has the same meaning as the defined term. If the phrase "Also see the definition for_____" is used, there is a related term in the glossary.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed below are not necessarily all of the documents referenced herein, but are the ones that are needed in order to fully understand the information provided by this handbook.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the latest issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto.

SPECIFICATIONS

MILITARY

MIL-PRF-29612A Performance Specification, Training Data Products

HANDBOOKS

MILITARY

MIL-HDBK-29612-1 Department of Defense Handbook, Guidance for Acquisition of Training Data Products and Services

MIL-HDBK-29612-2	Department of Defense Handbook, Instructional Systems Development/Systems Approach to Training and Education
MIL-HDBK-29612-3	Department of Defense Handbook, Development of Interactive Multimedia Instruction (IMI)

(Unless otherwise indicated, copies of military specifications, standards and handbooks are available from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. ACRONYMS, ABBREVIATIONS, AND DEFINITIONS

3.1 Acronyms and abbreviations. The acronyms and abbreviations used within the MIL-HDBK-29612 series of handbooks and MIL-PRF-29612A are as follows:

ACRONYM	LONG TITLE
AAR	After-Action Review
ACL	All Critical Learning
ACR	Armored Cavalry Regiment
ADC	Analog-to-Digital Converter
ADTLP	Army-wide Doctrinal and Training Literature Program
AFH	Air Force Handbook
AFI	Air Force Instruction
AFS	Air Force Specialty
AFSC	Air Force Specialty Code
AI	Artificial Intelligence
AMSC	Acquisition Management Systems Control
AMSDL	DoD Acquisition Management Systems and Data Requirements Control List
ANSI	American National Standards Institute
AOC	Army Occupational Code
AOIT	Allocation Of Instructional Time
AP	Acquisition Plan
ARTEP	Army Training and Evaluation Program
ASAP	As Soon As Possible
ASCII	American Standard Code for Information Interchange
ASI	Additional Skill Identifier
ASVAB	Armed Services Vocational Aptitude Battery
AVI	AudioVisual Interleave
BER	Bit Error Rate
BIOS	Basic Input/Output System
BMP	Bit Map
BSEP	Basic Skills Education Program
CAI	Computer-Aided Instruction

ACRONYM	LONG TITLE
CAV	Constant Angular Velocity
CBD	Commerce Business Daily
CBT	Computer-Based Training
CD	Compact Disc
CD-ROM	Compact Disc-Read-Only Memory
CDF	Criticality Difficulty Frequency
CDRL	Contract Data Requirements List
CED	Capacitive Electronic Disk
CETA	Cost-Effective Training Analysis
CFE	Contractor Furnished Equipment
CFETP	Career Field Education and Training Plan
CFT	Cockpit Familiarization Trainer
CFX	Command Field Exercise
CGA	Color Graphics Adapter
CIN	Course Identification Number
CITIS	Contractor Integrated Technical Information Services
CLIN	Contract Line Item Number
CLV	Constant Linear Velocity
CMI	Computer Managed Instruction
CMS	Courseware Management Systems
COTS	Commercial Off-The-Shelf
CPT	Cockpit Procedures Trainer
CPU	Central Processing Unit
CPX	Command Post Exercise
CRT	Cathode Ray Tube
CTC	Combat Training Center
CTEA	Cost and Training Effectiveness Analysis
CU	Close-Up
DAC	Digital-to-Analog Converter
DAVIS	Defense Automated Visual Information System
dB	Decibel
DDDS	Defense Data Dictionary System
DDM	Defense Data Model
DID	Data Item Description
DISA	Defense Information Systems Agency
DITIS	Defense Instructional Technology Information System
DMX	Decision Making Exercise
DoD	Department of Defense
DoDISS	Department of Defense Index of Specifications and Standards
DoD-STD	Department of Defense Standard
DoDI	Department of Defense Instruction
DOS	Disk Operating System
DPI	Dots-Per-Inch
DT&E	Developmental Test and Evaluation
DTIC	Defense Technical Information Center
DVD	Digital Video Disk
DVI	Digital Video Interactive

ACRONYM	LONG TITLE
ECR	Electronic Classroom
EEPROM	Electronically Erasable Programmable Read-only Memory
EGA	Enhanced Graphics Array
EIA	Electronics Industries Association
ELO	Enabling Learning Objective
EPROM	Erasable Programmable Read-Only Memory
EPSS	Electronic Performance Support System
FCC	Federal Communications Commission
FCX	Fire Coordination Exercise
FIPS	Federal Information Processing Standard
FOJT	Formal On-the-Job Training
FPS	Frames Per Second
FTX	Field Training Exercise
GCO	Government Concept of Operations
GFE	Government Furnished Equipment
GFI	Government Furnished Information
GFM	Government Furnished Material
GFP	Government Furnished Property
GIDEP	Government/Industry Data Exchange Program
GIF	Graphics Interface Format
GOSIP	Government Open Systems Interconnection Profile
GOTS	Government Off-The-Shelf
GP	Government Property
GR	Graphics
HDTV	High Definition Television
HHT	Headquarters and Headquarters Troop
HOL	Higher Order Language
HTML	HyperText Mark-up Language
Hz	Hertz
I/O	Input/Output
IBM	International Business Machines
ICAI	Intelligent Computer-Assisted Instruction
ICH	Instructor Contact Hour
ICW	Interactive Courseware
IDE	Integrated Data Environment
IEEE	Institute for Electrical and Electronics Engineers
IETM	Interactive Electronic Technical Manual
IFF	Introduction to Fighter Fundamentals
IG	Instructor Guide
IKPT	Instructor and Key Personnel Training
IMA	Interactive Multimedia Association
IMI	Interactive Multimedia Instruction
IPR	In-Process Review
IQ	Intelligence Quotient
IR	Infrared
ISD	Instructional Systems Development
ISD/SAT	Instructional Systems Development/Systems Approach to Training

ACRONYM	LONG TITLE
ISDN	Integrated Services Digital Network
ISO	International Standardization Organization
ITP	Individual Training Plan
ITS	Individual Training Standard
ITTP	Individual Task Training Package
ITU	International Telecommunication Union
IVD	Interactive Videodisc
IVIA	Interactive Video Industry Association
JA	Job Aid
JPEG	Joint Photographic Experts Group
JTI	Job Task Inventory
Kb	Kilobytes
kHz	kilohertz
KSA	Knowledge, Skills, and Attitudes
LAN	Local Area Network
LASER	Light Amplification by Stimulated Emission of Radiation
LCM	Life Cycle Model
LCX	Logistical Coordination Exercise
LED	Light Emitting Diode
LFX	Live Fire Exercise
LG	Lecture Guide
LISP	Lisp Processing
LO	Learning Objective
LRC	Learning Resource Center
LS	Long Shot
MAJCOM	Major Command
MANPRINT	Manpower and Personnel Integration
MAPEX	Map Exercise
MB	Megabyte
MC	Military Characteristics Document
MHz	Megahertz
MIDI	Musical Instrument Digital Interface
MIL-HDBK	Military Handbook
MIL-PRF	Military Performance Specification
MJPEG	Motion Joint Photographic Experts Group
MOS	Military Occupational Skill
MOU	Memorandum Of Understanding
MP&T	Manpower, Personnel, and Training
MPA	Materials Preparing Activity
MPEG	Motion Picture Experts Group
MPS	Mission Performance Standards
MQS	Military Qualification Standards
MS	Medium Shot
MS-DOS	Microsoft Disk Operating System
MTBF	Mean Time Between Failure
MTP	Mission Training Plan
MTT	Mobile Training Team

ACRONYM	LONG TITLE
MTTR	Mean Time To Repair
MV	Motion Video
N/A	Not Applicable
n^2	Indefinite number
NBC	Nuclear Biological Chemical
NEC	Navy Enlisted Classification
NTSC	National Television Standards Committee
OBT	On-Board Training
OCR	Optical Character Recognition
ODARS	Occupational Data Analysis Requirements and Structure
OEM	Original Equipment Manufacturer
OFS	Officer Foundation Standards
OFT	Operational Flight Trainer
OJT	On-the-Job Training
OPR	Office of Primary Responsibility
OS	Over-the-shoulder Shot
OSE	Open Systems Environment
OSHA	Occupational Safety and Health Administration
OSUT	One-Station Unit Training
OT&E	Operational Test and Evaluation
PAL	Phase Alternation by Line
PC	Personal Computer
PDF	Portable Document Format
PEDD	Portable Electronic Display Device
PERT	Program Evaluation Review Technique
PI	Programmed Instruction
PIN	Production Identification Number
PIP	Programmed Instructional Package
PIT	Pilot Instructor Training
PIXEL	Physical Picture Element
PLATO	Programmed Logic for Automated Teaching Operations
PME	Professional Military Education
POE	Projected Operational Environment
PPP	Personnel Performance Profile
PQS	Personnel Qualification Standard
PROLOG	Programming System in Logic Language
PROM	Programmable Read-Only Memory
PTT	Part Task Trainer
QA	Quality Assurance
QAR	Quality Assurance Evaluator
QASP	Quality Assurance Surveillance Plan
QC	Quality Control
QI	Quality Improvement
QM	Quality Management
QQPRI	Qualitative and Quantitative Personnel Requirement Information
RAM	Random Access Memory
RDBMS	Relational Data Base Management System

ACRONYM	LONG TITLE
RFI	Request For Information
RFP	Request For Proposal
RFT	Ready For Training
RFU	Ready For Use
RGB	Red Green Blue
RGL	Reading Grade Level
ROC	Required Operational Capabilities
ROI	Return On Investment
ROM	Read-Only Memory
RTU	Replacement Training Unit
S/N	Signal-to-Noise ratio
SAT	Systems Approach to Training
SCI	Student Centered Instruction
SCSI	Small Computer Systems Interface
SDD	Standard Digital Data
SDE	Standard Data Element
SECAM	Sequential Color with Memory
SGI	Small Group Instruction
SGL	Small Group Leader
SGML	Standard Government Mark-up Language
SM	Soldier's Manual
SMCT	Soldier's Manual of Common Tasks
SME	Subject Matter Expert
SMPTE	Society of Motion Picture and Television Engineers
SOO	Statement of Objectives
SOW	Statement Of Work
SPO	System Program Office
SSB	Script-Storyboard
SSID	Standard Software Interface Definition
STP	Soldier Training Publications
STRAP	System Training Plan
STX	Situational Training Exercise
SVGA	Super Video Graphics Array
T&EO	Training and Evaluation Outlines
TADS	Training Analysis Data Sheet
TADSS	Training Aids, Devices, Simulators, and Simulations
TC	Training Circular
TD	Training Development
TDY	Temporary Duty
TE	Training Emphasis
TEA	Training Effectiveness Analysis
TEE	Training Effectiveness Evaluation
TEEP	Training Effectiveness Evaluation Plan
TES	Tactical Engagement System
TEWT	Tactical Exercise Without Troops
TG	Trainee Guide
TIFF	Tag Image File

ACRONYM	LONG TITLE
TKT	Threshold Knowledge Test
TLA	Training Level Assignment
TLO	Terminal Learning Objective
TM	Technical Manual
TMO	Training Material Outline
TO	Technical Order
TOE	Table of Organization and Equipment
TOS	Training Objective Statement
TPR	Trained Personnel Requirement
TPS	Training Path System
TQR	Training Quality Report
TR	Training Requirement
TRIM	Time Related Instructional Management
TRPPM	Training Planning Progress Methodology
TSA	Training Situation Analysis
TSFC	Training System Functional Characteristics
TSP	Training Support Package
UFT	Undergraduate Flying Training
VDI	Virtual Device Interface
VDP	Video Display Processor
VGA	Video Graphics Array
VHD	Video High Density
VHS	Video Home System
VI	Visual Information
VR	Virtual Reality
VTC	Video Teleconferencing
VTT	Video Tele-Training
VU	Volume Unit
WAN	Wide Area Network
WORM	Write-Once-Read-Many
WRM	War Readiness Material
WWW	World Wide Web
WYSIWYG	What You See Is What You Get

3.2 Definitions. The terms used within the MIL-HDBK-29612 series of handbooks are defined as follows:

3.2.1 Ability. Power to perform an act, either innate or the result of learning and practice.

3.2.2 Ability grouping. Arrangement whereby students are assigned to groups on the basis of aptitude testing.

3.2.3 Ablation. Optical memory data writing technique where a laser burns holes, or pits, in thin metal film.

3.2.4 A-B rolls. A technique by which audio and video information are played back from two videotape machines rolled sequentially, often for the purpose of dubbing the sequential

information onto a third tape, usually a composite master. Required to achieve special effects or dissolves between scenes when editing.

3.2.5 Academic Review Board. A board that evaluates a student's progress and recommends a course of action when the student has failed to achieve learning objectives or when the student is qualified to accelerate their training.

3.2.6 Access time. The amount of time between an input and the availability of output from a system.

3.2.7 Accreditation. The recognition afforded an educational institution when it has met accepted standards of quality applied by an accepted, professional accreditation agency.

3.2.8 Accredited curriculum. Any formal training curriculum that has been reviewed and approved by a competent accrediting agency to determine the extent to which the curriculum content can be converted to academic credit.

3.2.9 Acquisition. The acquiring by contract of supplies or services (including construction) through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated.

3.2.10 Acquisition logistics. Technical and management actions conducted to ensure supportability implications are considered early and throughout the acquisition process to minimize support costs and to provide the user with the resources required to sustain the system in the field. Also see the definition for “logistics support”.

3.2.11 Acquisition Management Systems and Data Requirements Control List (AMSDL). A listing of source documents and Data Item Descriptions (DIDs) which have been approved for repetitive contractual application in DoD acquisitions and those that have been canceled or superseded. The Acquisition Management Systems and Data Requirements Control List (AMSDL) is identified as DoD 5010.12-L.

3.2.12 Acquisition Management Systems Control (AMSC) Number. A control number for Type I and Type II Data Item Descriptions (DIDs) and source documents (see definition for DoD Acquisition Management Systems and Data Requirements Control List (AMSDL) Control Officer).

3.2.13 Acquisition Plan (AP). A document that records program decisions; contains the user's requirements; provides appropriate analysis of technical options; and includes life cycle plans for development, testing, production, training, and logistic support of material items.

3.2.14 Acquisition streamlining. Acquisition streamlining is a common sense approach that results in more efficient and effective use of resources to develop or produce quality products. This includes ensuring that only necessary and cost-effective requirements are included, at the most appropriate time in the acquisition cycle, in Requests For Proposals (RFPs) and resulting contracts for the design, development, and delivery of new products, or for modifications to existing products.

3.2.15 Action verb. A word that conveys action/behaviors and reflects the type of performance that is to occur (i.e., place, cut, drive, open, hold). Action verbs reflect behaviors that are measurable, observable, verifiable, and reliable.

3.2.16 Active program. The computer program that is currently being run.

3.2.17 Active video. The portion of the screen where video can appear. This is the portion of horizontal and vertical video not blanked by horizontal and vertical blanking.

3.2.18 Active video lines. All video lines not occurring in the horizontal and vertical blanking intervals.

3.2.19 Actual equipment trainer. An actual system or subsystem component modified to allow for training of personnel.

3.2.20 Adaptive branching technique. Any of several techniques used in scheduling to accommodate individual differences. It may permit the student to bypass material they already know or may provide them with additional instruction as needed.

3.2.21 Additional Skill Identifier (ASI). Identification of specialized skills that are closely related to, and are in addition to, those required by Military Occupational Specialties (MOS).

3.2.22 Additional training. Refresher, optional, or advanced training given to a student that results in the student regaining or improving their knowledge/proficiency.

3.2.23 Addressing. Methods for locating where a particular piece of data is stored.

3.2.24 Adjunctive materials. Materials that supports a program/plan of instruction and must be used by students to learn the tasks being taught in the program of instruction (i.e., adjunctive material for a lesson on map reading may include a map, compass, and protractor). Also see the definition for “supplemental training materials”.

3.2.25 Administrative drop. The removal of a student from a formal training program for reasons other than failure to meet minimal academic standards.

3.2.26 Adverse weather shutdown. Training stoppage due to adverse weather. This would include preventive shutdown because of threat to personnel and equipment and shutting down training hardware due to power fluctuations caused by adverse weather.

3.2.27 Affective domain. A classification of objectives that focus on the development of attitudes, beliefs, and values. Military training uses the classification “attitude” to describe the affective domain.

3.2.28 Affective learning. A domain of learning that is concerned with the acquisition of desired perceptions by the student; that is, the order and discipline required within the military. That part of student learning objectives that require the acquisition of perceptions in the students, promoting (e.g., self-confidence, responsibility, respect, dependability, and personal relations).

3.2.29 Aircrew. Student or pilot, navigator, electronic warfare officer, weapons director, or any other member of an aircraft crew.

3.2.30 Aircrew simulator. Usually an electromechanical device which imitates the flying environment for aircrew training.

3.2.31 Air Force Specialty (AFS). A grouping of positions that require common qualifications. An AFS is identified by a title and a code.

3.2.32 Air Force Specialty (AFS) code. An AFS represented by a code.

3.2.33 Allocation Of Instructional Time (AOIT). The AOIT shows the time it takes for one training organization to teach one iteration of the course, and includes times for individual topics, labs, etc.

3.2.34 Alpha-geometric. A videotext graphics format where shapes are defined by geometric elements such as points and lines.

3.2.35 Alpha-mosaic graphics. A videotext graphics format where pictures are composed of small character-size blocks resulting in low resolution graphics.

3.2.36 Alpha-photographic. A videotext graphics format where images appear similar to still photos and each point on the screen is separately addressable.

3.2.37 Alternate character set. A set of user-defined characters that can be loaded in place of the standard characters provided.

3.2.38 American Standard Code for Information Interchange (ASCII). The standardized, eight-bit data character code system used internationally to code alphabetic, numerical, and other symbols into the binary values used in computer applications.

3.2.39 American Standard Code for Information Interchange (ASCII) interface. An interface between systems that accepts commands and returns responses in the form of standard ASCII strings.

3.2.40 Analog. The representation of quantities that vary continuously. Information that steadily flows and changes. The representation of numerical values by physical variables such as temperature, current, and voltage.

3.2.41 Ancillary materials. Documents that integrate the use of instructional media materials by directing the instructor and student use of the materials and providing supplemental information. Ancillary materials may be a self-study workbook, lecture guide, student guide, exercise controller guide, or instructor utilization handbook.

3.2.42 Ancillary software. Commercial off-the-shelf packages or tools used with authoring software. Examples of ancillary software are storyboarding tools, word processing, graphics, flowcharting, and Computer Managed Instruction (CMI) software.

3.2.43 Ancillary training. Refers to training in subjects that pertain to the duty performance of personnel but are separate from the individual's primary job. Included is training in those subjects not identified in the individual's job description.

3.2.44 Animation. The illusion of movement produced by displaying a series of successive images. For successful animation sequences, images must replace one another rapidly enough to appear to be continuous movement; at least 14 Frames Per Second (FPS).

3.2.45 Answer key. A document that shows the answers to each test item and the test standard for each test.

3.2.46 Anti-aliasing. Software adjustment to make diagonal or curved lines appear smooth and continuous in computer generated images.

3.2.47 Anticipated responses. Answers expected from students in reply to planned questions.

3.2.48 Application software. A computer program designed to do one specific job or perform a specific task. Any software that is part of the application layer.

3.2.49 Apprenticeship. A structured training program involving instruction, work experience, and testing, usually for a set period of time, leading to certification in a given area.

3.2.50 Aptitude. The ability of an individual to acquire skill or show the potential for acquiring skill when given the opportunity and proper training.

3.2.51 Armed Services Vocational Aptitude Battery (ASVAB). A series of tests designed under Department of Defense sponsorship which measures potential for training in a general occupational area.

3.2.52 Army Training and Evaluation Program (ARTEP). The cornerstone of unit training. It is the umbrella program to be used by the trainer and training manager in the training evaluation of units. The ARTEP is a complete program enabling commanders to evaluate and develop collective training based on unit weaknesses, then train the unit to overcome those weaknesses and reevaluate. Success on the battlefield depends on the coordinated performance of collective and individual skills that are taught through the ARTEP Mission Training Plan (MTP). Also see the definition for ”Mission Training Plan (MTP)”.

3.2.53 Array. The designation of a location of points by coordinates. A 2-D array is described with X-Y coordinates, while a 3-D array is described with X-Y-Z coordinates.

3.2.54 Artificial Intelligence (AI). The development or capability of a machine that can perform functions that are normally associated with human intelligence such as learning, adapting, reasoning, self-correction, and automatic improvement.

3.2.55 Artwork. Still illustrations or graphics.

3.2.56 Aspect ratio. The measurement of a film or television viewing area in terms of its relative width and height values. The width-to-height ratio of a single frame of film (three-to-two) or video (four-to-three).

3.2.57 Assembly. In computer technology this term means the conversion of instructions and data written in a computer language or in everyday terms, into the machine code that the computer understands.

3.2.58 Assembly language. A low level language (one level above machine code) that uses mnemonics for instructions, computational operations, and pseudo operations.

3.2.59 Assignment-oriented training. Training designed to qualify an individual to perform those specific functions associated with the duty position and skill level of the next assignment.

3.2.60 Asynchronous. A system in which stages of a program are set up so the completion of one operation initiates the next. A mode of communication in which the next command is started and stopped by special signals, referred to as start and stop bits.

3.2.61 Asynchronous transmission. Transmission in which time intervals between transmitted characters may be of unequal length. Transmission controlled by start and stop bits at the beginning and end of each character.

3.2.62 Attention step. A segment of a lesson introduction in which the presenter gains the attention of the student and focuses upon the subject to be taught.

3.2.63 Attenuation. The decrease in magnitude of a signal.

3.2.64 Attitude. The mental state of a person that influences behavior, choices, and expressed opinions. Military training uses the term attitude to identify the psychological term affective domain.

3.2.65 Attitude learning type. A classification of change in an individual’s mental capability to perform a skill.

3.2.66 Attitude measure. An instrument designed to gather information about a person's disposition toward something (e.g., liking or disliking subject matter or usefulness of a medium).

3.2.67 Attitudinal traits. An attitude that is part of the normal behavior of an individual. In contrast, attitudinal state is a momentary behavior.

3.2.68 Attrition rate. The rate at which students are disenrolled from a course or fail to complete a course satisfactorily.

3.2.69 Audio. Sound based sensory stimuli. In some cases audio cues may be the sole sensory stimulus possible. In most cases audio is used to reinforce other sensory stimuli.

3.2.70 Audio compression. Identical to the definition for "still frame audio".

3.2.71 Audio only lesson. A recording that provides verbal information related to a task, or supporting skill and knowledge training.

3.2.72 Audio track. The section of an analog media that contains the sound signal that accompanies the video signal. The audio track usually runs along the edge of the videotape, and beside the video track on a disk.

3.2.73 Audiovisual aid. A device capable of providing stimuli to the physical senses of sight and hearing.

3.2.74 Audiovisual equipment. Equipment used for producing, processing, recording, and showing audiovisual products.

3.2.75 Audiovisual products. Material containing sound or imagery for conveying a message. Refers to still photography, graphics arts, still projections such as overhead transparencies, slides or film strips, motion pictures such as film, videotape, or videodisc, audio recordings (tape and disk), and combinations of such media.

3.2.76 Audiovisual services. Those functions performed in the production, manipulation, distribution, and storage of audiovisual materials such as scripting, video storyboard, photography, sound or television recording, film processing, film or tape editing, animation, graphic arts, audiovisual media depository and record center operations, reproduction and distribution of products, loan of audiovisual products or equipment, presentation of television, audio, still, or motion picture information; and design of consulting support for audiovisual users.

3.2.77 Audit trail. A documented record of the relationships among data.

3.2.78 Authoring. A structured approach to developing all elements of a unit of instruction.

3.2.79 Authoring language. A set of rules, procedures, words, notation, syntax, and semantics used by an author to specify the logic and content of instruction to be delivered by a computer.

3.2.80 Authoring software. Computer programs designed to help authors create Interactive Multimedia Instruction (IMI) without elaborate programming. There are three types of IMI authoring software they are: authoring language, authoring system, and ancillary software.

3.2.81 Authoring system. A prepackaged, prompted authoring aid, courseware template, or menu-driven editor designed to help authors (without formal computer programming skills) create Interactive Multimedia Instruction (IMI) without elaborate programming. It is often referred to as an authoring package.

3.2.82 Auto-stop. A pre-programmed instruction telling the system to stop automatically at a designated place.

3.2.83 Awareness training. Training used to disseminate information that provides an individual with the basic knowledge/understanding of a policy, program, or system.

3.2.84 Background training. The training that provides basic technical knowledge and skills required to prepare for further specialized training.

3.2.85 Bandwidth. The range of frequencies available for signals.

3.2.86 Base memory. Random Access Memory (RAM) from the 0 byte memory addresses up to the 640 KB Disk Operating System (DOS) limit, in an IBM compatible personal computer using the DOS operating system. This memory area is usable by DOS for programs and data. Also called "conventional memory".

3.2.87 Basic Input/Output System (BIOS). The computer hardware and software that describes the conventions of input/output for a particular computer.

3.2.88 Basic Skills Education Program (BSEP). A program that provides individuals instruction in prerequisite academic competencies necessary for job proficiency and preparation for advanced training.

3.2.89 Batch file. A text file (denoted with the file extension name ".BAT") that contains a collection of Disk Operating System (DOS) commands. When the filename is typed, each DOS command in the file will be executed sequentially as if each DOS command had been typed separately.

3.2.90 Battle drill. A collective action executed in a standard manner without the application of a deliberate decision making process. The action is vital to success in combat or critical to preserving life. The drill is initiated on a cue, such as an enemy action or simple order, and is a trained response to the given stimulus. It requires minimal orders to accomplish and is standard throughout like units. Also see the definitions for “crew drill” and “drill”. Also called “combat drill”.

3.2.91 Behavior. Any human activity (skill, knowledge, or attitude), overt or covert, capable of being measured.

3.2.92 Behavioral objective. Identical to the definition for “Learning Objective (LO)”.

3.2.93 Behavior modification. The change in the knowledge, skills, or attitude of an individual which occurs as the result of a planned set and schedule of reinforcements.

3.2.94 Bezel. Frame or housing around a monitor screen often associated with touch screens that frequently require an extra bezel to accommodate the infrared Light Emitting Diodes (LEDs) or controlling electronics.

3.2.95 Bias. A systematic and pervasive error in measurement, not attributable to chance or random effects.

3.2.96 Billet. A specific personnel space that is assigned qualifiers that define the duties, tasks, and functions to be performed and the specific skills and skill level required to perform the delineated functions.

3.2.97 Binary code. A code in which every digit has only one of two possible values. The values may be the presence or absence of a pulse, a one or a zero, or a high or low condition for a voltage or current.

3.2.98 Binary digit. A numeral in the binary system of notation. The smallest unit of information in a binary system. One piece of information equal to one binary decision and represented either by a 0 or 1. All the memory locations in a computer are identified by a binary number address.

3.2.99 Binary interface. An interface between systems that accepts commands and returns responses in the form of command and response codes and pointers to parameter packets containing parameter token numbers and associated values.

3.2.100 Binary notation. A numbering system with a base of two (as opposed to decimal with a base of 10) and using only two numerals: one and zero. The numbering system used by computers, where a "1" is represents an "on" condition and a "0" is represents an "off" condition.

3.2.101 Bit Error Rate (BER). A unit of measurement equal to the number of bit writing errors in a given volume or area of storage medium in a specified period of time.

3.2.102 Bit location. A storage position capable of storing one bit; the position of a specific digit in a binary number.

3.2.103 Bit map. A computer graphic image that is stored in a digital format that can be displayed on a screen.

3.2.104 Bit mapping. A method of saving graphics in a digitized format so a graphic image or parts of the image can be displayed on the screen.

3.2.105 Bit planning. A build-up of graphics behind a display being shown to reduce or eliminate graphic build-up of following displays. The display appears quickly on the screen similar in speed to video displays.

3.2.106 Bit stream transmission. The method of transmitting characters at fixed time intervals. No stop and start elements are used, and the bits that form the characters follow each other without pause.

3.2.107 Blanking. The period of time in which no video image is displayed. Also see the definitions for “horizontal blanking” and “horizontal blanking interval”.

3.2.108 Block of instruction. A group of related instructional units or modules covering a major subject area.

3.2.109 Branching. A instructional operation where a selection is made between two or more possible courses of action depending upon some related fact or condition or user response. Two or more directions a program path can go from a decision point.

3.2.110 Branching design. Paths developed by the designer to be executed by the user's input.

3.2.111 Branching design criteria. Previously determined paths developed by the designer and influenced by the user's input. Branching is intended to allow for differences in students learning processes.

3.2.112 Broadcast quality. A level of quality for audio and video that can both be acceptably transmitted by radio or television.

3.2.113 Bubble memory. A memory technology that makes use of magnetic bubbles generated from a single-crystal sheet. Memory is nonvolatile (not lost when power is removed).

3.2.114 Buffer. A temporary storage area for data, usually used to compensate for a difference in data rate and data flow between two devices (e.g., a computer and a printer).

3.2.115 Burst transmission. The process of messages being stored for a while, then released at a much faster rate of transmission; the received signals are recorded and then slowed down for the user.

3.2.116 Bypassing. In programmed instruction, a technique that permits a student to skip certain portions of the material because of prior knowledge.

3.2.117 C Programming language. A computer programming language that allows for computations to be made quickly.

3.2.118 Cache. Temporary, volatile storage for data requiring quick access.

3.2.119 Cadre training. Training of an initial (nucleus) group of personnel, such as instructors. Also see the definitions for “instructor and key personnel training”, and “new equipment training”.

3.2.120 Camera-ready copy. Original document (either in paper or electronic form) ready for entry into the printing system. Also called "reproducible copy".

3.2.121 Career management fields. Career management fields are groupings of related occupational specialties that show a logical career progression.

3.2.122 Case study. A learning experience in which students encounter a real-life situation under the guidance of an instructor or computer in order to achieve an instructional objective.

3.2.123 Categories of Interactive Courseware (ICW) presentation. There are four categories of ICW presentation, descriptions are as follows:

a. Category 1 - Low Grade Presentation. This is the lowest (baseline) category of ICW development. It is normally a knowledge or familiarization lesson, provided in a linear format (one idea after another). Category 1 is primarily used for introducing an idea or concept. The user has little or no control over the sequence and timed events of the lesson material. Minimal interactivity is provided by selective screen

icons and inserted into the lesson through typical input/output peripherals and programming protocols. This category may include simple developed graphics and/or clip art, customer provided video and audio clips.

b. Category 2 - Medium Grade Presentation. This category involves the recall of more information than a Category 1 presentation and allows the student more control over the lesson's scenario through screen icons and other peripherals, such as light pens or touch screens. Typically Category 2 is used for non-complex operations and maintenance lessons. Simple emulations or simulations are presented to the user. As an example, the user is requested to rotate switches, turn dials, make adjustments, or identify and replace a faulted component as part of a procedure. This category also may include simple to standard developed graphics, and/or clip art, and customer provided video and audio clips.

c. Category 3 - High Simulation Presentation. This category involves the recall of more complex information (compared to Categories 1 and 2) and allows the user an increased level of control over the lesson scenario through peripherals such as light pen, touch screen, track ball, or mouse. Video, graphics, or a combination of both are presented simulating the operation of a system, subsystem, or equipment to the user. The lesson scenario training material typically is complex and involves more frequent use of peripherals to affect a transfer of learning. Operation and maintenance procedures are normally practiced with Category 3 scenarios and students may be required to alternate between multiple screens to keep pace with the lesson material. Multiple software branches (two to three levels) and rapid response are provided to support remediation. Emulations and simulations are an integral part of this presentation. This category may also include complex developed graphics, and/or clip art, and customer provided video and audio clips.

d. Category 4 - Real-time Simulation Presentation. This ICW category involves more in-depth recall of a larger amount of information (compared to Categories 1, 2, and 3) and allows the user an increased level of control over the lesson. Every possible subtask is analyzed and presented with full, on-screen interaction, similar to the approach used in aircraft simulator technology. The lesson material is extremely complex and involves more frequent use of peripherals to affect the transfer of learning. This category normally supports certification, recertification or qualification requirements. Complicated operation and maintenance procedures are normally practiced with Category 4 and involves all of the elements of Categories 1, 2, and 3 presentations plus 1) a high degree of interactivity, 2) an extensive branching (four or more levels), and 3) levels of sophistication - short of artificial intelligence.

3.2.124 Central Processing Unit (CPU). The computer unit or chip, where all calculations, instructions, and data manipulations are performed.

3.2.125 Certification. A formal confirmation of certain facts.

3.2.126 C-Format videotape. A standard for one-inch videotape and one-inch videotape recorders and players.

3.2.127 Chaining. A training technique that uses or transforms a learned response into the stimulus for the next desired response which then becomes the stimulus for the next response and so on to the final desired response.

3.2.128 Checklist. A job aid used to determine or ensure a process or procedure is followed. The elements of the activity are listed in the execution sequence.

3.2.129 Chrominance. An analog measure of a color signal, consisting of red, green, and blue primary information.

3.2.130 Class frequency. Identical to the definition for “instructional class frequency”.

3.2.131 Class size. The number of students in a class.

3.2.132 Class training schedule. The schedule of lessons and events for a class attending a resident course.

3.2.133 Clustering. A process of organizing many tasks or learning objectives into logical groups based on some criteria. Also pertains to sequencing groups of objectives within a course of instruction.

3.2.134 Cockpit Familiarization Trainer (CFT). A device that looks like the aircrew station(s) of a specific aircraft.

3.2.135 Cockpit Procedures Trainer (CPT). A device used to train normal, emergency, and instrument procedures.

3.2.136 Cognitive domain. A classification of educational objectives characterized by their dependence upon the manipulation of language symbols (thinking) mental process.

3.2.137 Cognitive learning. A domain of learning that is concerned with knowledge and the various mental activities and processes by which the learner acquires knowledge and mental skills.

3.2.138 Collective exercises. Multi-echelon training events used to evaluate and sustain the skills of individuals, leaders, teams, staffs, and units.

3.2.139 Collective task. A task that requires more than one individual to complete with each individual performing a discreet part of the collective task. Also see the definitions for “common collective task”, “common task”, and “task”.

3.2.140 Collective task analysis. The breaking down of a collective task into its discreet component parts.

3.2.141 Collective training. Instruction and applied exercises that prepare an organizational team (e.g., a squad, crew, battalion, or multi-Service task force) to accomplish required tasks and/or missions as a unit. Also see the definitions for “concurrent training“ and “team training”.

3.2.142 Collective training matrices. Graphic portrayals of relationships between missions, collective tasks, leader tasks, and individual tasks.

3.2.143 Co-located school or course. A school or course that is used by one or more services on another service's installation and shares classroom facilities and equipment.

3.2.144 Color bars. A color standard used by the television industry for the alignment of cameras and videotape recordings.

3.2.145 Combat drill. Identical to the definition for “battle drill”. Also see the definition for “drill”.

3.2.146 Combat readiness. A unit's ability to perform and be supported in combat.

3.2.147 Combined arms live fire exercise. High-cost, resource-intensive exercises in which player units move or maneuver and employ organic and supporting weapons systems using full service ammunition.

3.2.148 Combined arms training. Training which focuses on the integration of combat, combat support, and combat service support elements to produce units capable of mission accomplishment on the battlefield.

3.2.149 Combined training exercise. A training exercise that is conducted by military forces of more than one nation. Also called “multinational training”.

3.2.150 Commercial Off-The-Shelf (COTS). Items regularly used in the course of normal business operations for other than Government purposes that may be sold or licensed to the general public.

3.2.151 Common collective task. A collective task that is trained and performed in the same way by every unit in the Service. Also see the definitions for “collective task”, “common task”, and “task”.

3.2.152 Common core. Certain basic principles or instruction common to two or more training courses.

3.2.153 Common core training. Directed training requirement for specific courses, grade levels, or organization levels.

3.2.154 Common learning objective. A learning objective written for a task element (supporting skill or knowledge) that is common to two or more tasks.

3.2.155 Common task. A task that is performed by all members of a Service regardless of rank, job, or duty position.

3.2.156 Communications program. A program used to transmit and receive digital data.

3.2.157 Communications protocol. In a data communication network, the code standard that governs the priority and sequencing of data transmission. The rules governing the exchange of information between devices on a data link.

3.2.158 Compact Disc (CD). A 4.75 inch optical disk with information recorded in a pattern of microscopic pits on the disk's reflective surface sandwiched between layers of plastic. (A low power laser shines on the surface and an optical sensor reads the pits by noting changes in the beam’s reflection.) Also see the definition for “optical disk”.

3.2.159 Competency. A specific range of skills, knowledge, or abilities.

3.2.160 Competency-based instruction. Instruction that is organized around a set of learning objectives based upon the knowledge, skills and attitudes required to perform a set of skills called competencies. Evaluation of student success is based on competent performance of the skills. Normative measurement is specifically excluded from competency-based instruction.

3.2.161 Compiler. A computer program that translates a high-level language into a sequence of machine-language instructions that is executable by the computer.

3.2.162 Completion item. A test component requiring the completion of a statement, phrase, or concept.

3.2.163 Component video. A video signal in Red-Green-Blue (RGB) format which is a type of computer display output signal comprised of separately controllable red, green, and blue signals.

3.2.164 Composed SMPTE. The Society for Motion Picture and Television Engineers (SMPTE) number for each frame of video made of character-generated text, video, and special effects.

3.2.165 Composite video. The complete visual wave form of the color video signal composed of chromatic and luminance picture information; blanking pedestal; field, line, color sync pulses; and field equalizing pulses.

3.2.166 Comprehension verification. A technique whereby the student's understanding of what has been presented is tested before the student may proceed through the courseware.

3.2.167 Compressed speech. A presentational technique in which recorded audio information is presented at a rate of speed closely approximating the thinking rate of the individual.

3.2.168 Computer Aided Instruction (CAI). The use of computers to aid in the delivery of instruction. CAI exploits computer technology to provide for the storage and retrieval of information for both the instructor and student.

3.2.169 Computer based courseware portability. The capability to transfer courseware across various computer hardware or operating systems and have the courseware correctly function without modifications. Also see the definition for “portability”.

3.2.170 Computer Based Training (CBT). Instruction delivered with the aid of a computer.

3.2.171 Computer language. A formal system of signs and symbols, including rules for the information and transformation of expressions, which all communicate information a computer can understand.

3.2.172 Computer Managed Instruction (CMI). The use of computers and software to manage the instructional process. CMI functions can include student registration, student and group performance and trends, course and lesson content interaction with the student, scheduling training, course/lesson performance and use trends, and other training management functions.

3.2.173 Computer mark-up. The computer capability to write marks on the screen, indicating incorrect or unacceptable student responses to a question.

3.2.174 Computer modeling technique. A procedure employed during the simulation of an operational system; involves computer simulation of the major operations of the system under a variety of conditions.

3.2.175 Computer storage medium. A medium used to store digital data.

3.2.176 Concurrent training. Scheduling of training designed to train groups of trainees simultaneously on different tasks. Also see the definitions for “collective training” and “team training”.

3.2.177 Condition. That portion of a learning objective or task statement that describes limitations.

3.2.178 Conditional branching. Branching which occurs when a specified condition or set of conditions is satisfied.

3.2.179 Condition statement. Part of a task or learning objective that describes the environment for performing the task. Conditions to be included in an accurate and complete statement of task conditions are tools and equipment, job aids, manuals, supervision, special physical demands, environmental conditions, and location of performance.

3.2.180 Configuration management. A systems management process used to ensure that modifications made in either hardware or software are in accordance with system standards and are compatible with the operation of other system components.

3.2.181 Consequences of inadequate performance. A criterion in selecting critical tasks. The consequences of inadequate performance on certain tasks could result in injury to personnel, loss of life, or damage to equipment.

3.2.182 Constant Angular Velocity (CAV). A mode of videodisc playback where a disk rotates at a constant speed, regardless of the position of the reading head or stylus, making each frame separately addressable. A videodisc with information configured in concentric circles in order to provide rapid and discrete access. Individual frames can be identified and retrieved quickly and easily-the rapid, random access that is a basic requirement for an Interactive Video Disk (IVD). A CAV videodisc revolves at a continuous speed of 1,800 rotations per minute, contains 54,000 frames per side, and assigns a variable track length to each frame. One revolution generates one video frame.

3.2.183 Constant Linear Velocity (CLV). An extended-play videodisc with information configured in a spiral, similar to a record, to provide continuous, linear play. A consistent length for each frame is maintained, thus enabling longer playing time per side. CLV

videodiscs assign a fixed track length to each frame and spin at a speed that gradually decreases as the disk plays. CLV disks allow twice as much playing time per side than CAV disks, but many user control capabilities of the CAV format are forfeited. The CLV disk can be read in linear play only, but can provide chapter search capability. A CAV videodisc contains 108,000 frames per side but restricts access in terms of chronological time. They are usually used for entertainment such as movies.

3.2.184 Constraints. Limiting or constraining conditions or factors.

3.2.185 Constructed response. An answer requiring recall or completion as opposed to recognition (e.g., drawing a diagram, filling in a form, and labeling the parts of a piece of equipment).

3.2.186 Constructed response test item. An examination item requiring recall or completion as opposed to recognition (e.g., drawing a diagram; filling in a form; labeling the parts of a piece of equipment; writing a sentence, paragraph, or essay).

3.2.187 Content validity. An assessment that attests that a product will produce the desired results. One example in military training compares objectives, tests, and materials to ensure that they track with each other and, thus, may be expected to produce the desired results.

3.2.188 Contiguity. In learning, the principle, in which events that occur closely together, become associated by the student.

3.2.189 Contingency management. The establishment of a set of procedures by which students are required to perform a certain amount of work or to achieve certain objectives before engaging in activities that are preferred by the student (e.g., recreation, a break, or a more desirable training event). Also, described as reward stimulus procedures (i.e., systematically scheduling the consequences of behavior).

3.2.190 Contract Data Requirements List (CDRL), DD Form 1423. A list of the data requirements that are authorized to be acquired for a specific acquisition, which is made a part of the contract.

3.2.191 Contracting activity. An element of an agency designated by the agency head and delegated broad authority regarding acquisition functions.

3.2.192 Contractor. An individual or organization outside the U.S. Government that has accepted any type of agreement or order for providing supplies or services to a U.S. Government Agency.

3.2.193 Contractor Furnished Equipment (CFE). Items provided by the contractor for inclusion in or support of contract work.

3.2.194 Controlled testing. A controlled study to test or evaluate an item or subject, used for such things as obtaining validation data.

3.2.195 Control track. A defined area that runs along a narrow band on the bottom edge of videotape, where the field sync pulse is recorded and replayed by a separate audio head. It acts as a reference that controls the heads to accurately trace the recorded information.

3.2.196 Convention. A guideline, rule, or practice based on general consent or acceptance.

3.2.197 Copy protect. A software or hardware system placed on a program to prevent its being copied.

3.2.198 Core curriculum. The central part of the total educational program involving the development of essential skills required for desired student performance.

3.2.199 Corrective maintenance. The actions performed, as a result of failure, to restore an item to a specified condition.

3.2.200 Correspondence course. A self-study course consisting of instructional material and an assignment booklet (or lessons) for administration to nonresident students. Also see the definitions for “distance learning” and "extension training".

3.2.201 Cost and Training Effectiveness Analysis (CTEA). An analysis which compares costs and effectiveness among training alternatives.

3.2.202 Cost/benefit tradeoff analysis. An analytic approach to solving problems of choice. It requires the definition of objectives, identification of alternative ways of achieving each objective and the identification, for each objective, of that alternative that yields the greatest benefit for a given cost or produces the required level of benefits at the lowest cost.

3.2.203 Cost effective. Economical in terms of goods or services received for the money spent.

3.2.204 Cost-Effective Training Analysis (CETA). A comparative evaluation of potential instruction methods and media to determine the most cost efficient and training effective alternative.

3.2.205 Counseling. A means of assisting and developing students and subordinates. A leader/instructor counsels subordinates: to praise and reward good performance, to develop teamwork, to inform students on how well or how poorly they are performing, to assist students to reach required standards, to cause students to set personal and professional goals, and to help students resolve personal problems.

3.2.206 Course. A complete integrated series of lessons which are identified by a common title and/or number. Also see the definitions for “instructional unit”, “lesson”, and “module”.

3.2.207 Course chart. A qualitative course control document that states the course identity, length, and security classification, lists major items of training equipment, and summarizes the subject matter covered.

3.2.208 Course evaluation. An assessment of the course to include course effectiveness, instructor effectiveness, technical documentation effectiveness, and effectiveness of training media.

3.2.209 Course identification. Alphanumeric designator used to identify a training course.

3.2.210 Course Identification Number (CIN). Alphanumeric number assigned to identify a course of instruction.

3.2.211 Course management plan. A document that describes how the course manager and instructors will manage and conduct the course.

3.2.212 Course map. A chart that depicts the designed sequence for events of a course.

3.2.213 Course mission. A description of the ultimate purpose of the course including a statement of who and what is to be trained, the degree of qualification brought about by the training, and where and under what general conditions the graduate will perform on the job.

3.2.214 Course prerequisite. A requirement the student must possess before being able to attend a training course or lesson.

3.2.215 Course training standards. Sets forth the tasks and proficiency required of students. Establishes overall course objectives. Contains performance, standards, and conditions.

3.2.216 Course trials. A full length course conducted in a target environment (facilities, instructors and students) using the curriculum and supporting training material prepared for that course. Its purpose is to "shake down" or "validate" the curriculum and materials in a classroom situation to determine their effectiveness in attaining the approved learning objectives or training goals. Also called “pilot course”.

3.2.217 Courseware. An actual instructional package (including content and technique).

3.2.218 Courseware logic flow diagram. A graphic representation of actions/events required in accomplishment of the presentation of a course.

3.2.219 Courseware maintenance. Repairing, changing, replacing, or any other manipulation of implemented courseware.

3.2.220 Courseware Management Systems (CMS). CMS involves the use of computers to provide data storage and management of information collected during the analysis, design, development, and evaluation of training. CMS also provides an audit trail among task, learning objectives, instructional activities, lessons, courses, and media. Its primary purpose is the management curriculum data.

3.2.221 Cover shot. A wide-angle shot giving basic orientation of place and action.

3.2.222 Covert behavior. Behavior that is not directly observable but may be inferred from overt behavior that is observable.

3.2.223 Crew drill. A collective action that a crew of a weapon or piece of equipment must perform to use the weapon or equipment successfully in combat or to preserve life. This action is a trained response to a given stimulus such as a simple order or the status of the weapon or equipment. It requires minimal orders to accomplish. Also see the definitions for “battle drill” and “drill”.

3.2.224 Criterion. The standard by which something is measured. In training, the task or learning objective standard is the measure of student performance. In test validation, it is the standard against which test instruments are correlated to indicate the accuracy with which they predict human performance in some specific area. In evaluation it is the measure used to determine the adequacy of a product, process, or behavior.

3.2.225 Criterion behavior. Performance required of the course graduate, which is described by the terminal objective(s) and measured by the criterion test.

3.2.226 Criterion-referenced grading. A way of grading students in relation to a predetermined standard (go or no-go). The standard is based on job requirements.

3.2.227 Criterion-referenced instruction. A way of organizing and managing instruction in which pre-specified performance criteria are achieved by each qualified student.

3.2.228 Criterion-referenced measurement. The process of determining, as objectively as possible, a student's achievement in relation to a fixed standard that is based on objectives. Also see the definition for “norm-referenced measurement”.

3.2.229 Criterion-referenced objective. An objective with prescribed levels of performance. Each criterion-referenced objective contains a behavior (task statement), condition (available equipment, checklists, and governing directives, or the situation requiring the task), and a standard (regulation, operating instruction) for the task.

3.2.230 Criticality standard. A standard that reflects the importance of a task or learning objective.

3.2.231 Critical sequence. In training development, sequencing of topics or objectives according to their importance.

3.2.232 Critical task. A collective or individual task that, if not accomplished to the specified standard by a unit or individual, results in a serious adverse effect upon mission accomplishment, survivability, or safety. Critical tasks must be trained. Also see the definition for “training task”.

3.2.233 Critical task selection board. A management device that serves a quality control function in critical task selection. The board reviews the total task inventory and job performance data and recommends tasks for approval to the appropriate authority as critical tasks.

3.2.234 Cross talk. The unwanted transmission of a signal on a channel that interferes with another adjacent channel.

3.2.235 Cross training. The systematic training of individuals on tasks related to another duty position.

3.2.236 Cue. A prompt that signals performance is needed. An initiating cue is a signal to begin performing a task or task performance step. An internal cue is a signal to go from one element of a task to another. A terminating cue indicates task completion.

3.2.237 Cue inserter. The device that places cues on lines of the vertical interval of the master tape.

3.2.238 Cue track. A narrow area, along a narrow band on the outer edge of videotape, which records signals, codes, and verbal memoranda used in editing.

3.2.239 Curriculum. A set of courses constituting an area of specialization. All training conducted within a school, outlined into specific topics, along with detailed training objectives, to include behavior, conditions, and standards.

3.2.240 Curriculum materials. All materials required for the presentation of information and the development of skills in formal training.

3.2.241 Curriculum outline. A detailed chronological listing of units/modules and lesson topics with estimated times of coverage in sequential order with the learning objectives they support.

3.2.242 Data. Recorded information, regardless of form or method of recording.

3.2.243 Database. Systematically organized computer data files for central access, sorting, quick searching, retrieval, and update.

3.2.244 Data capture. A speed-saving data input technique whereby input data is read by an optical scanning device and sent to a computer to be processed.

3.2.245 Data Item Description (DID), DD Form 1664. A form used to define the data required of a contractor. The form, when completed, specifically defines the data content, preparation instructions, format, and intended use.

3.2.246 Data model. In a database, the user's logical view of the data in contrast to the physically stored data, or storage structure. A data model is also a description of the organization of data in a manner that reflects the information structure of an enterprise.

3.2.247 Data packets. A collection of data bits transmitted as a single unit in a communications network.

3.2.248 Data product specification. A type of specification used to acquire data products (with the exception of technical manuals). Data product specifications are the source documents for Data Item Descriptions (DIDs) and are listed in the DoD Acquisition Management Systems and Data Requirements Control List (AMSDL).

3.2.249 Data rate. The speed at which data is transmitted.

3.2.250 Decibel (dB). A unit for expressing the relative intensity of sound.

3.2.251 Decision point. A point at which there are two or more options.

3.2.252 Decision tree. A flowchart or graphic representation of the sequence of specific activities or operations.

3.2.253 Deductive design. An instructional design where rules are presented followed by examples. The emphasis is on forming conclusions. Also see the definition for “inductive design”.

3.2.254 Deductive reasoning. The application of a law, principle, or other form of rule to develop conclusions. In training the principle or rule is provided and then supported with examples. Also see the definition for “inductive reasoning”.

3.2.255 Default. A particular value that is assigned automatically and remains in effect unless overridden.

3.2.256 Defense Automated Visual Information System (DAVIS). A standard, DoD-wide automated data processing system for managing Visual Information (VI) at the DoD Component and major command levels. DAVIS includes a production database covering production, acquisitions, inventory, distribution, product status and archival control of audiovisual productions and VI materials, and a VI facilities database that includes activities, facilities, personnel, and funds.

3.2.257 Defense Instructional Technology Information System (DITIS). A standard, DoD-wide database designed to facilitate resource sharing within the DoD Components by providing a central source of Interactive Courseware (ICW) information. The DITIS database provides information on all DoD-owned ICW programs, whether fielded or under development, including information on delivery system, operating software, authoring tools and courseware for both planned and fielded ICW systems.

3.2.258 Defense Technical Information Center (DTIC). The organization that acquires, stores, retrieves, disseminates, and enhances technical information for research and development for government and industry.

3.2.259 Demodulation. The process of retrieving digital data from a modulated signal.

3.2.260 Demonstration-performance method. A learning experience in which students observe and then participate in a sequence of events designed to teach a procedure, a technique, or an operation, frequently combining oral explanation with the operation or handling of systems, equipment, or materials.

3.2.261 Demonstration phase. A part of the demonstration-performance teaching method during which the instructor shows students how to perform the skill to be learned.

3.2.262 Dependent learning objective. Skills and knowledge in one learning objective that are related to those in another learning objective. In order to master one of the learning objectives, it is first necessary to learn the other.

3.2.263 Dependent testing. Requiring student mastery of skills and knowledge in one learning objective before testing skills and knowledge in another learning objective.

3.2.264 Design phase. A major phase in the training development process. Determines how to train. Translates analysis data into a blueprint for training. It identifies all resource requirements, training structure, learning objectives, test items, training sequence, student evaluation/graduation requirements, program of instruction.

3.2.265 Developmental validation. The initial stage in which the material is tried out to determine if the product supports achievement of the learning objectives and to locate portions of the instructional materials that need to be revised.

3.2.266 Development phase. A major phase in the training development process. Converts the design into resident and nonresident training materials, e.g., lesson plans, tests, student handouts, media, etc.

3.2.267 Device driver. Software that tells the computer how to talk to the peripheral device.

3.2.268 Diagram sheet. An instructional sheet that provides the student with a diagram, schematic, illustration, or definitions used during the course of instruction.

3.2.269 Didactic design. Instructional design in which the student is presented information and asked to respond to questions.

3.2.270 Differential feedback. Test response feedback specific to the multiple choice answer selected by the student.

3.2.271 Difficulty-importance-frequency model. One of several models available for use in selecting tasks for training and training site. Using this model, tasks are identifies as critical based on the difficulty, importance, and frequency of job task performance.

3.2.272 Digital Video Disk (DVD). Compact-disc-like media that is capable of storing approximately 4.7GB of data in a single disk/single layer format, 8.4GB in a single disk/double layer format and up to approx. 16.8GB in a double sided/double layer format. This facilitates the storage of very large full motion video and other multimedia files.

3.2.273 Digital Video Interactive (DVI). A standard for storing a large amount of digital data and producing full-screen, full-motion interactive video, audio, and still graphics or text. The interactive portion of DVI allows the viewer to manipulate, modify, twist, or otherwise control every aspect of the picture and sound. DVI works by utilizing heavy-duty data compression to store a large amount of digital data and unpacking the data when it is needed. DVI products can be stored on any medium that records digital signals, including Compact Disc-Read Only Memory (CD-ROM) disks. The technology requires a personal computer, typically an AT-command compatible machine, and uses a custom Video Display Processor (VDP) that lets users process and display images either on a computer monitor or on a television set. A DVI compact disc can store more than one hour of video playing time, and can recreate and display 30 video frames per second.

3.2.274 Digitize. To convert analog data or code to digital data.

3.2.275 Discrimination. The ability to identify a nonexample of a concept that shares some but not all the critical attributes of that concept.

3.2.276 Distance learning. The application of technology to deliver training to persons at locations other than the originating site. Also see the definitions for “correspondence course” and “extension training”.

3.2.277 Distracter. In testing, incorrect answers provided as choices in multiple choice or matching type test items.

3.2.278 Distributed system configuration. A computer system configuration where terminals can operate in a stand-alone mode as well as being able to share the processing and storage capabilities of a central processor in the network. Distributed systems have the capability of supporting remote stand-alone terminals in addition to supporting local stand-alone terminals. The distributed system must have software that integrates all the terminals into central Computer Managed Instruction (CMI) and system management.

3.2.279 Doctrine. Fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application.

3.2.280 Domain of learning. A generic classification of learning outcomes into one of three primary but not necessarily materially exclusive categories: cognitive (e.g., thinking, understanding), affective (e.g., attitudes, values), and psychomotor (e.g., physical skills).

3.2.281 Downtime, scheduled. The determined or required idle time necessary for normal servicing of computer equipment/software during which the equipment is unavailable for operations.

3.2.282 Downtime, unscheduled. The idle machine time during which the system is being repaired because of failures or unforeseen circumstances other than normal servicing or maintenance time.

3.2.283 Drill. A standardized technique or procedure that prepares students to execute critical individual or collective tasks in an instinctive and spontaneous manner. The drill includes the method(s) by which it is trained. Also see the definitions for “battle drill” and “crew drill”.

3.2.284 Drill and practice. Ungraded verifications of comprehension of enabling objectives (e.g., questions, exercises, and problems). A method of instruction characterized by systematic repetition of concepts, examples, and practice problems. An ungraded practice quiz.

3.2.285 Dumb terminal. A terminal that acts as an input/output device only.

3.2.286 Duty. A set of operationally related tasks within a given job (e.g., weapons servicing, driving communicating, target detection, self protection, operator maintenance).

3.2.287 Duty hours. The period of the day during which job performance is scheduled.

3.2.288 Electronically Erasable Programmable Read-only Memory (EEPROM). Type of memory that can be erased via electric current and is reprogrammable.

3.2.289 Electronic guides. A type of electronic publication.

3.2.290 Electronic Performance Support System (EPSS). An integrated electronic environment that is available to and easily accessible by each user and is structured to provide immediate, individualized access to the full range of information, software, guidance, advice and assistance, data, images, tools, and assessment and monitoring systems to permit performance with minimal support and intervention by others. EPSSs can also be considered a type of job performance aid.

3.2.291 Electronic publications. A document, prepared in a digital form on a suitable medium, for electronic-window display to an end user. Two examples of electronic publications are electronic guides and Interactive Electronic Technical Manuals (IETMs).

3.2.292 Electronic testing. A general term used to encompass all methods for applying computers in the assessment of human attributes, knowledge, and skills. Many forms of computer based testing adapt the sequence, content, or difficulty of test items to the responses of the person being tested. As the individual is being tested the computer presents test items in response to the individual's actions. The electronic testing method utilizes branching to select test items based on the answers given while the test is being administered.

3.2.293 Electronic training media. Devices utilized in the application of computer and communications technologies to automate and support the free exchange of digitized technical data in support of the development, delivery, and maintenance of training materials.

3.2.294 Embedded training. Training involving simulation or stimulation of operational equipment performance in addition to the equipment's primary operational function(s). Training provided by capabilities not specifically required for mission completion, but that are built into or added onto operational systems, subsystems or equipment to enhance or maintain user's skill proficiency.

3.2.295 Emulation. Mimicking the operation or characteristics of another system.

3.2.296 Enabling Learning Objective (ELO). A statement in behavioral terms of what is expected of the student in demonstrating mastery at the knowledge and skill level necessary for achievement of a Terminal Learning Objective (TLO) or another ELO.

3.2.297 Enabling skills and knowledge. The knowledge and skills required for the performance of a task performance step. They are identified when conducting task analysis.

3.2.298 Enterprise. An integrated, purposeful activity that usually leads to accomplishment of a goal.

3.2.299 Entry behavior. The knowledge and skills a student has when entering a course of instruction.

3.2.300 Entry level training. The training of knowledge, skills, and attitudes a student must possess prior to entering an occupational skill category.

3.2.301 Entry skills. Identical to the definition for “prerequisite”.

3.2.302 Environment. The physical conditions and surroundings in which a job is performed, or in which learning takes place.

3.2.303 Environmental considerations. The environmental factors, concerns, and regulations that must be taken into account when conducting task analysis, designing training, and/or implementing training.

3.2.304 Equipment. A part of a system or subsystem for which operation and maintenance can be performed.

3.2.305 Erasable Programmable Read-Only Memory (EPROM). Non-volatile, semi-conductor memory that is erasable via ultraviolet light and reprogrammable.

3.2.306 Evaluation. Judging, assigning, or affixing the worth of something.

3.2.307 Evaluation information. That information collected for the purpose of assessing performance of students, conduct of instruction, support of instruction, or any other aspect of the instructional process.

3.2.308 Evaluation instrument. A test or other measuring device used to determine achievement (go and no-go) or the relative standing of an individual or group or a test objective (i.e., attitude, behavior, performance objective, and other attributes). Evaluation instruments include tests, rating forms, inventories, and standard interviews.

3.2.309 Evaluation plan. A set of procedures that will be used to gather data and information for the purpose of assessing a course of instruction or other training product.

3.2.310 Evaluation program. A schedule for the coordinated, systematic, and continuous assessment of the efficiency and effectiveness of the training system, its processes and products.

3.2.311 Examination. To review or inquire with the intent of ascertaining the truth or actual state of things.

3.2.312 Exercises. Multi-echelon training events used to evaluate and sustain the skills of individuals, leaders, teams, staffs, and units. Types of exercises are:

a. Command Field Exercise (CFX). Field training exercise with reduced troop and vehicle density but with full command and control, and combat service support elements.
b. Command Post Exercise (CPX). An exercise in which the forces are simulated; may be conducted from garrison locations or between participating headquarters in the unit.
c. Decision Making Exercise (DMX). Exercise used to brainstorm rough contingency courses of action in response to conditions which could arise during an operation. It

is intended to improve dialog, understanding, and teamwork between commanders, subordinate commanders, and staffs.

d. Field Training Exercise (FTX). A scenario driven tactical exercise used to train and evaluate critical collective and supporting individual tasks in a collective environment which simulates the stress, sounds, and wartime conditions. It is conducted in an austere field environment during day and night and through all weather conditions.
e. Fire Coordination Exercise (FCX). Trains the combined arms team chain of command and related fire control elements to rapidly synchronize fires on the battlefield.
f. Live Fire Exercise (LFX). An exercise designed to allow a unit/team to engage targets with its organic weapons and support.
g. Logistical Coordination Exercise (LCX). Provides leaders with a hands-on opportunity to deal with combat related challenges such as transportation, maintenance, and graves registration.
h. Map Exercise (MAPEX). Portrays military situations on maps and overlays. A training tool used before conducting other, more costly exercises.
i. Situational Training Exercise (STX). A short scenario driven mission-oriented tactical exercise that provides a vehicle to train a group of related collective tasks and drills together. Situational training exercises provide preconstructed short term exercises that are central to sustainment training for tactical mission proficiency.
j. Tactical Exercise Without Troops (TEWT). An exercise conducted on actual terrain with unit leaders and staff without troops.

3.2.313 Expanded memory. Bank-switchable Random Access Memory (RAM) above 640 KB, which can be addressed in chunks by software that recognizes it, in any IBM compatible personal computer using DOS in a 8088 or higher microprocessor. It allows for chunks of RAM, each no greater than 640 KB, to be addressed one group at a time by one program, speeding up the execution and data handling of the program.

3.2.314 Expansion slot. A slot for a card in a computer or device. One or more spaces in a computer that holds circuit boards (cards) that enhance computer operation.

3.2.315 Experiential learning. An instructional activity having a behavioral based hierarchy that allows the student to experience and practice job related tasks and functions during a training session.

3.2.316 Expert system. A computer tool that attempts to emulate the procedure used by an expert to solve a problem.

3.2.317 Exportable training. A training program or course that may be moved and trained at different locations.

3.2.318 Extended memory. Random Access Memory (RAM) greater than 640 KB, which can be fully addressed by software that recognizes it, in a 286-based or higher IBM compatible personal computer using Disk Operating System (DOS). The software puts the personal computer in protected mode to address the RAM in one chunk (including the RAM above 640 KB). When making a system call to DOS, the software must put the computer in unprotected mode and cannot address more than 640 KB of RAM. The software often

toggles the computer between protected and unprotected mode in order to effectively use the RAM above 640 KB and make system calls to DOS.

3.2.319 Extension training. Training, either individual or collective, which is usually conducted at locations other than Service schools or training centers. Also see the definitions for "correspondence course" and “distance learning”.

3.2.320 Extension training material. A term used to describe all exportable training products. It includes materials that are exported from one resident school to another as well as units.

3.2.321 External evaluation. External (field) evaluation is the process of gathering and analyzing data from outside the training environment in order to determine how well recent graduates are meeting job performance requirements. This evaluation activity relies primarily on input from the field to determine how well graduates are performing. However, in some cases, external evaluation data is gathered and provided to the organization by inspection and evaluation teams, consultants, advisory bodies, Board of Visitors, accrediting agencies, and professional certification groups.

3.2.322 External storage. Peripheral device for storage (e.g., tape or disk).

3.2.323 Extrapolation. A sub-level of the comprehension level of learning in which students develop sufficient understanding to estimate trends or predict outcomes based upon the subject matter under study.

3.2.324 Factory training. Training or instruction provided by a vendor or manufacturer on how to maintain and operate a specific piece of equipment.

3.2.325 Fade. To slowly change a video image (screen).

3.2.326 Familiarization training. Training to acquaint personnel with a specific system or to keep personnel abreast of changing concepts and requirements.

3.2.327 Fault. A malfunction of equipment/firmware/software.

3.2.328 Fault insertion devices. Equipment designed with malfunctions to be used as training aids for systems, subsystems and equipment.

3.2.329 Feedback. Information provided that indicates the appropriateness of responses. Feedback may also be an indicator of the efficiency or effectiveness of the system or product.

3.2.330 Fidelity. The degree to which a sensory stimulus accurately represents reality.

3.2.331 Field exercise. An exercise conducted outside the classroom in the field under simulated conditions.

3.2.332 Fielding date. When equipment is delivered.

3.2.333 Field standard. The video production standard that effectively describes the running speed of the video program. Field standard is related to the main power supply frequency. Where the power supply is 60 Hz, the field standard is 60 fields (or 30 frames) per second; this is the standard employed by National Television Standards Committee (NTSC) systems.

3.2.334 Field training. Technical, operator or other training conducted at operational locations on specific systems and associated direct support equipment.

3.2.335 Field validation. The point in training product development where the product is administered to a representative sample of the student target population. The intent is to exercise the product in a realistic environment to determine the administrative feasibility and the appropriateness of the product for the student target population.

3.2.336 Firmware. A computer program or software permanently stored in Programmable Read-Only Memory (PROM), Read-Only Memory (ROM), or semi-permanently stored in Erasable Programmable Read-Only Memory (EPROM).

3.2.337 Fixed repetition. The design element that repeats a segment of training material in the same way to increase learning.

3.2.338 Fixed sample. When testing the effectiveness of a lesson, a preset sample of students is selected in advance. Decisions are based on the outcome of that preset sample.

3.2.339 Fixed sequence. A process where elements that are always performed in the same order.

3.2.340 Fixed sequence task. A task that follows the same steps each time that it is performed.

3.2.341 Flicker. The shaky or shivering effect (usually unwanted) on a video still or freeze frame caused when both fields of a video picture frame are not identically matched with fields from adjacent frames. As the video equipment attempts to display the still or freeze frame, the adjacent pictures alternate.

3.2.342 Flowchart. A visual method of indicating the many relationships of the sub parts of a process, including steps and decision points.

3.2.343 Flow diagram. A graphic representation of actions/events required in accomplishment of task (e.g., lesson development).

3.2.344 Flying spot scanner. A device that uses a moving spot of light to scan a sample space, with the intensity of the transmitted or reflected light being sensed by a photoelectric transducer. Used to transfer slides or film to videotape.

3.2.345 Follow-on training. Training conducted after initial training.

3.2.346 Foreign training. The training of foreign nationals under the provisions of the Foreign Assistance Act of 1961, as amended. It is funded through grants or foreign military

sales. It includes resident training, on-the-job training, mobile training team, field training services, and in-country training. Also called the “military assistance program”.

3.2.347 Formal course. Training course outlined in formal training syllabus which accepts a student with prescribed entry prerequisites and ensures that each graduate possesses the knowledge, skills, and levels of proficiency set forth in the course objectives or training standards.

3.2.348 Formal lecture. A structured and often rehearsed teaching session with no verbal participation by students. Also see the definitions for “lecture” and “informal lecture”.

3.2.349 Formal On-the-Job Training (FOJT). Formal training that takes place in the actual work situation.

3.2.350 Formal training. Training (including special training) in an officially designated course conducted or administered in accordance with appropriate course outline and training objectives.

3.2.351 Format. The desired organization, structure, or arrangement of the content of a data product. This term relates to the shape, size, makeup, style, physical organization, and typographic make-up (e.g., line length, type face, and size) of the data product.

3.2.352 Formative evaluation. An evaluation employed during the development process that provides information about the effectiveness of training objectives and the student acceptance of training materials. This information is used to guide the refinement of the product under development.

3.2.353 Frame. In programmed instruction, each portion of material to which the student makes a response. A frame may vary in size from a single incomplete sentence, question, or instruction to perform some response, up to a sizable paragraph.

3.2.354 Frame address. A code that indicates the location of a frame on either a videotape or videodisc. Each frame has a frame address. A frame address is put on each disk or tape in the form of a frame address code.

3.2.355 Frame address code. A code located in the vertical interval of a video frame.

3.2.356 Frame buffer. A memory device that stores the contents of an image pixel by pixel. Frame buffers are used to refresh a raster image. Sometimes they incorporate local processing ability. The "depth" of the frame buffer is the number of bits per pixel, which determines the number of colors or intensities that can be displayed.

3.2.357 Frame grabber. A device that stores one complete video frame.

3.2.358 Frame number. A number that indicates the frame address.

3.2.359 Frame oriented. A method in which a designer/developer works directly on designing the screens that comprise the basis of the finished Interactive Courseware (ICW).

3.2.360 Frame rate. The speed at which frames are scanned; 30 frames per second for National Television Standards Committee (NTSC) and 24 frames per second for film.

3.2.361 Frame storer. A device that stores one complete video frame.

3.2.362 Frame (video). A single, complete video picture composed of two interlaced fields totaling 525 lines (National Television Standards Committee (NTSC)), running at 1/30 second. A single frame is a Constant Angular Velocity (CAV) videodisc reference point.

3.2.363 Freeware. Software that is distributed by its author without charge. A general term for software that is made available to users on terms other than conventional sales. Also called "open software".

3.2.364 Freeze frame. A single stopped frame from a motion sequence. A single frame from a motion sequence displayed as a still image. Unlike a still frame, a freeze frame is not a picture originally shot to appear on its own, but is one frame taken from a longer moving sequence.

3.2.365 Frequency of performance. How often a task is performed.

3.2.366 Front matter. Data required at the beginning of a document to provide purpose, identification, foreword, and other data not included in the body of the document.

3.2.367 Full duplex. Simultaneous, two-way independent transmission.

3.2.368 Full-frame identification. The process during film-to-tape transfer whereby picture cues are inserted in the vertical interval of the master tape to identify the first video field that corresponds to a new film frame.

3.2.369 Full-frame time code. Identical to the definition for "Society for Motion Picture and Television Engineers (SMPTE) time code".

3.2.370 Full-motion video. Video that is displayed such that on-screen motion appears to be smooth and continuous. Also called "continuous motion video".

3.2.371 Full scale simulator. A device that allows simulation of tasks related to applicable crew members for a given operational requirement. It is capable of simulating the operational environment (e.g., audio, visual, and tactile) to achieve maximum realism and training effectiveness.

3.2.372 Functional area. A named category, descriptive of a subject under which tasks are listed. The title given a functional area is descriptive of a subject in which the assigned proponent is recognized as the technical expert.

3.2.373 Functional description. A design document which states the specific performance characteristics of a system to be developed. The document may be wholly narrative or it may contain flow-charting.

3.2.374 Functional grouping. Organizing instruction such that tasks that relate to the same procedures or equipment are presented together.

3.2.375 Gain. The level of amplification of a signal.

3.2.376 Gaming. A technique in which the student is presented situations involving choice and risks. The choices and the consequences resemble real-life situations, and the players are reinforced for various decisions. Gaming is typically an enjoyable learning method for the student.

3.2.377 Gantt chart. A visual representation of project events; shows the duration of each event along a timeline.

3.2.378 Gender changer. A hardware connecting device used to change a male/female device to female/male.

3.2.379 Gender neutral language. Terminology that cannot be construed to indicate a particular sex (i.e., the use of the term "service member" instead of "serviceman" or "servicewoman").

3.2.380 General purpose trainer. A trainer that can be configured through hardware or software changes to represent more than one operational system.

3.2.381 General skill. An ability having wide application and transferability.

3.2.382 Generation. The number of times a reproduction is removed from the original source. A copy of the original is a first generation, a copy of that is a second generation, and so forth.

3.2.383 Generator. In computer-based technology, a device or system that facilitates some task, such as text, graphics, or program design.

3.2.384 Generic courseware. Courseware that is not specific to one organization and appeals to a broader market.

3.2.385 Generic trainer. A trainer designed to provide training on a type or class of equipment as opposed to a specific system. Also see the definition for "general purpose trainer".

3.2.386 Generic videodisc. Videodisc material that can be used with courseware developed by more than one organization; disks associated with the subject matter but not with a particular course.

3.2.387 Genlocking. Aligning the data rate of a video image with that of a digital device, to digitize the image and enter it into computer memory. The device that performs this function is a genlock.

3.2.388 Goal analysis. A method of analyzing the affective requirements of an instructional program.

3.2.389 Go and no-go/pass or fail. The evaluation criterion whereby a student cannot partially pass. The student either passes (go: meets the standard) or fails (no-go: does not meet the standard).

3.2.390 Go to. A specific branch instruction in a program.

3.2.391 Government Concept of Operations (GCO). A Government document that is prepared during the acquisition planning and requirements determination activity for each procurement. It is used to provide information to potential offerors about the Government's computer hardware and software infrastructure and implementation strategy.

3.2.392 Government Furnished Equipment (GFE). Hardware/software that has been selected to be furnished by the Government to a contractor or Government activity for installation in, for use with, or in support of the system/equipment.

3.2.393 Government Furnished Information (GFI). Data that is to be furnished by the Government to a contractor.

3.2.394 Government Furnished Material (GFM). Documents, equipment, facilities, and services supplied to a contractor before and during the execution of a contract.

3.2.395 Government Furnished Property (GFP). Property (e.g., real and personal, including facilities, material, special tooling, special test equipment, and agency-peculiar property) in the possession of or directly acquired by the Government and subsequently made available to the contractor. Documents, equipment, facilities, and services supplied to a contractor before and during the execution of a contract.

3.2.396 Government/Industry Data Exchange Program (GIDEP). A cooperative data interchange among Government and industry participants seeking to reduce or eliminate expenditures of time and money by making maximum use of existing knowledge. GIDEP provides a means to exchange certain types of data essential during the life cycle of systems and equipment.

3.2.397 Government Open Systems Interconnection Profile (GOSIP). An applications portability profile interface definition for data communication network services in an Open Systems Environment (OSE). GOSIP is a Federal Information Processing Standard (FIPS), FIPS 146, that requires agencies to buy data communication products and services complying with a set of international standards called the Open Systems Interconnectivity.

3.2.398 Government Property (GP). All property (e.g., real and personal, including facilities, material, special tooling, special test equipment, and agency-peculiar property) owned by or leased to the Government, acquired by the Government under the terms of the contract, or property acquired by the contractor for performing a contract and to which the Government has title. It includes contractor-acquired property, Government Furnished Equipment, Government Furnished Information, Government Furnished Material, and Government Furnished Property.

3.2.399 Graphic. A visual representation of an idea, object, or other factors, shown by means of lines, marks, shapes, and symbols. A still picture, illustration, symbol, shape, or

other visual image (e.g., charts, graphs, line drawings, illustrations, equipment panels, animation, 3-D).

3.2.400 Graphic overlay. Computer generated text/graphics superimposed onto video (moving or still).

3.2.401 Graphics card. A peripheral device that enhances a computer's ability to process and display graphics.

3.2.402 Graphics input device. A unit such as a digitizer that gives the computer the points that make up an image so it can be stored, reconstructed, displayed, or manipulated. Also see the definition for "graphics tablet". Also called "bit pad".

3.2.403 Graphics library. The storage and documentation of graphics that are built within the units of Interactive Courseware (ICW). Graphics can be pulled from the library and be inserted into other units of ICW.

3.2.404 Graphics output device. Used to display or output an image.

3.2.405 Graphics tablet. A flat, device used with a stylus or mouse, which, when activated, creates an X-Y input, giving the points that make up an image, to the computer. A sensitive board that acts as a canvas through which computer-generated graphics can be drawn. Also see the definition for "graphics input device". Also called "bit pad".

3.2.406 Group lock-step instruction. Instructor centered training with fixed periods of instruction. All class members or small groups are instructed on the same task at the same time. Also called "lock-step instruction".

3.2.407 Group-paced instruction. Students progress as a group at a rate equal to that of the slowest student. There is no fixed minimum time for a unit.

3.2.408 Group trial. Tryout of a training course on a representative sample of the target population to gather data on the effectiveness of instruction in regard to error rates, criterion test performance, and time to complete the course.

3.2.409 Guard tracks or guard bands. The protective bands sometimes inserted between tracks of recorded material on audio or videotape to prevent crosstalk between unrelated tracks.

3.2.410 Guided discussion method. A learning experience in which students participate in an instructor-controlled, interactive process of sharing information and experiences related to achieving an instructional objective.

3.2.411 Half duplex. Transmission that can occur in only one direction at a time.

3.2.412 Handbook. A document prepared specifically to provide guidance information. Handbooks are used for the presentation of general information, procedural and technical use data, or design information related to commodities, processes, practices, and services.

3.2.413 Hands-on. Student practice on actual equipment, simulators, or training aids.

3.2.414 Hang-up. An unwanted repetition of an audio/video sequence, program, or courseware due to a hardware malfunction, control software error, or media problem.

3.2.415 Hard copy. Information printed on paper.

3.2.416 Hard data. Data acquired through precise and accurate measurement.

3.2.417 Hard disk. A memory storage device using a magnetically coated, rigid disk. An inflexible magnetic disk with greater storage capacity than a floppy disk, used as a mass storage medium.

3.2.418 Hard skills. Skills to perform where job requirements are well defined in terms of actions to be taken and expected outcomes.

3.2.419 Hardware. The physical components of a system. When referring to computers the term means the physical components and equipment that actually makes up a computer system (everything except the programs or software) which includes the machine itself, printers, disk drives, monitors, Modems, and accessories such as cables. Hardware includes the mechanical, electrical, or electronic equipment used for processing data.

3.2.420 Hardware transportability. The ease with which equipment can be transferred from site to site.

3.2.421 Hazard. A condition with the potential of causing injury to personnel, damage to equipment or structure, loss of material, or lessening of ability to perform a mission, a task, or a learning objective.

3.2.422 Helical. A type of videotape recorder in which the tape wraps around the head drum in a spiral or helical configuration. The videotape system employs two or more video heads mounted on opposite sides of a revolving drum. The video head drum spins at one frame per revolution, so each head scans one field per revolution. Helical scan achieves the high head-to-tape speeds needed for video recording by moving both the tape and the video heads.

3.2.423 Helping relationship. Face-to-face interactions in which an instructor applies effective human relations skills to assist a student or group of students attain a goal or goals.

3.2.424 Hertz (Hz). The standard unit of frequency. A measure of frequency or bandwidth. Cycles per second. One Hz is equal to one cycle per second.

3.2.425 Heuristic routine. A problem solving approach, not a direct step-by-step procedure, but a trial-and-error approach frequently involving the act of learning.

3.2.426 Hexadecimal. A base-16 number system used sometimes for computer functions.

3.2.427 High Definition Television (HDTV). Any variety of video formats offering higher resolution than current National Television Standards Committee (NTSC) broadcast standard.

3.2.428 Higher Order Language (HOL). A computer language that permits an action actually requiring several steps inside the computer to be specified by a single command. Higher order languages (e.g., COBOL, PASCAL, Ada) permit the programmer to be more productive than do the lower order languages (e.g., "assembly language" or "machine language". Also see the definition for "high-level language".

3.2.429 High-level language. A user-friendly computer programming language that uses English-like commands. A computer programming language that closely resembles everyday language. One high-level language statement can be translated to many assembly languages or machine code instructions. Authoring languages are a type of high-level languages. Examples of high-level languages are BASIC, PASCAL, and FORTRAN. Also see the definition for "Higher Order Language (HOL)".

3.2.430 Highlighting. Bringing attention to something by accentuating it through a variety of means such as color, and inverse mode.

3.2.431 High risk tasks. Critical operation or maintenance procedures that have a high potential for performance shortfall and a corresponding adverse impact on overall system performance if personnel are not trained to perform the tasks to standard. These tasks are typically difficult to train because they are exceptionally complex and require a high degree of skill, have either a high frequency of inadequate performances, or any combination of the above.

3.2.432 Hologram. A three-dimensional image produced by a system that uses lasers.

3.2.433 Home assignment sheet. Used to record the assignment of work a student must complete outside of regular class hours.

3.2.434 Horizontal blanking. The time period during which the video monitor display is blank for horizontal retracement. Also see the definitions for "blanking" and “horizontal blanking interval”.

3.2.435 Horizontal blanking interval. The time required for the picture-forming beam of a Cathode Ray Tube (CRT) to return from the end of a scan line to the start of the next scan line. Also see the definitions for "blanking" and “horizontal blanking”.

3.2.436 Horizontal sync. The pulse used to synchronize the horizontal scan of the video monitor.

3.2.437 Host computer. The central computer that is the primary information source and provides the computational power for terminals and peripheral devices that are connected to it.

3.2.438 Hue. A particular variety of a color; shade; tint. Hue is improperly adjusted if a picture is bluish, greenish, or reddish.

3.2.439 Hybrid trainer. A training device that is a composite trainer containing several related end item systems utilizing hardware and simulation of components. Provides capability for overall system operation and demonstration, and for the performance of tasks

for several interconnected and interfaced systems and subsystems contained in the related series end items.

3.2.440 HyperText Markup Language (HTML). A hypertext document format used to create World Wide Web (WWW) documents by using tags embedded in text.

3.2.441 Icon. Symbolic, pictorial representation of a particular function or task.

3.2.442 Identifier. A combination of one or more numbers, letters, or special characters that designate a specific object/entity but that have no readily definable meaning.

3.2.443 Ignorable words. Words in a string that will be ignored by the computer when a student response is judged.

3.2.444 Illustration. The use of graphics, animation, or any kind of visual demonstration within a lesson.

3.2.445 Image enhancement. A display technique that improves details or contrast between display elements.

3.2.446 Image processing. A computer transformation of machine data to produce a display on a monitor.

3.2.447 Immediacy of performance. The time between when the cue is received to perform a task and when the task is performed.

3.2.448 Implementation phase. The major Instructional Systems Development/Systems Approach to Training (ISD/SAT) phase that features actual conduct of training based on the materials created during the design and development phases.

3.2.449 Independent learning. Usually, learning outside the classroom environment. Similar to learning from homework. Not to be confused with "individualized instruction" or with "criterion-referenced instruction".

3.2.450 Independent learning objective. In instructional systems development, skills and knowledge in one learning objective that are unrelated to those in another learning objective. Mastering one of the objectives does not simplify the other.

3.2.451 Independent study. Typically, a special project or assignment of selected readings for students seeking more information on a course topic. Not to be confused with "individualized instruction" or with "criterion-referenced instruction".

3.2.452 Individualized instruction. Training that allows each student to determine the pace, start time, amount, and kind of instruction based on individual goals or objectives, entry-level skills, choice of learning media, and criterion-referenced measures for determining mastery.

3.2.453 Individual-paced instruction. Identical to the definition for "self-paced instruction".

3.2.454 Individual task analysis. The process used to identify the individual task performance specifications. They describe how the task is actually performed, under what conditions it is performed, and how well the individual must perform it. They are the task performance details needed to establish the individual training strategy and to design and develop follow on training.

3.2.455 Individual Task Training Package (ITTP). Data that provides personnel with critical task performance requirements associated with a specific job. Also see the definition for ”Training Support Package (TSP)”.

3.2.456 Individual training. Training that prepares the individual to perform specified duties or tasks related to assigned duty position or subsequent duty positions and skill level.

3.2.457 Individual Training Plan (ITP). A narrative description, a milestone schedule, a resource estimate, a resource summary supplement, a list of ammunition requirements, and an analysis plan, when available.

3.2.458 Individual Training Standards (ITSs). The standards used to specify individual training proficiency requirements (tasks) that support unit mission performance. They include a task (behavior), conditions, proficiency standards (often steps), and references. ITSs are generally derived from Mission Performance Standards (MPSs).

3.2.459 Individual trial. Identical to the definition for “individual tryouts”.

3.2.460 Individual tryouts. In training material validation (effectiveness testing), the initial tryout of the training materials on students from the target population. Also called “individual trial” and “tryout, individual”.

3.2.461 Inductive design. An instructional design where examples are presented followed by the rule. The emphasis is on discovery of concepts. Also see the definition for “deductive design”.

3.2.462 Inductive reasoning. A mental process in which individuals are asked to examine pieces of evidence to form a related pattern and then draw a conclusion from the evidence. Also see the definition for “deductive reasoning”.

3.2.463 Industrial quality. That level of quality that is higher than typical consumer or home applications and is meant for the rigorous professional environment.

3.2.464 Infinite loop. A sequence of instructions that endlessly repeats.

3.2.465 Informal lecture. An often conversational teaching method with considerable verbal interaction between instructor and student in the form of both questions and discussion. Also see the definitions for “formal lecture” and “lecture”.

3.2.466 Informal training. Training accomplished by actions for which structuring is not specifically planned beforehand.

3.2.467 Information processing. The processing of data representing information and the determination of the meaning of the processed data.

3.2.468 Information resources management. The planning, budgeting, organizing, directing, training, promoting, controlling and management activities associated with the burden, collection, creation, use and dissemination of information, including the management of information and related resources, such as personnel, funds, and information technology.

3.2.469 Information retrieval. The ability to address and recover or recall information from an information storage facility (e.g., database, files, library).

3.2.470 Information sheet. Provides the student with data that is either not available from any other source or presents information available from other sources in a much clearer and more condensed form.

3.2.471 In-house. Actions performed entirely within the given activity, company, or organization, using its own resources, facilities, and expertise.

3.2.472 Initial design. The first basic concept, usually expressed as a flowchart and treatment, that deals with a block of information and the manner in which the blocks will interact, rather than with the specific portions of a lesson or procedure.

3.2.473 Initialize. The process of restarting or resetting a system to the beginning (e.g., starting a computer program at the beginning, creating a new database, starting a computer).

3.2.474 Initial qualification training. Initial training that qualifies a student to a certain knowledge and skill level required before the student can take more advanced training.

3.2.475 In-Process Review (IPR). A meeting either in-house or between the customer and the provider to review program status. Periodic evaluations/assessments held at specific points in the stages of the project's progress.

3.2.476 Input device. A mechanism used to feed or transfer information into a computer or processing system (e.g., keyboard, keypad, light pen, trackball, mouse, joystick, or touch screen).

3.2.477 Insert edit. The type of edit in which new video/audio material is inserted into any point of a preexisting material (or block) already recorded on the master tape. No new time code or control track is recorded.

3.2.478 Inspection. The action of determining whether a process or product is in compliance with established standards and procedures.

3.2.479 Instant jump. The feature of some videodisc players that allows branching at imperceptible speeds without any screen blanking between frames within certain minimum distances, usually one to 200 frames away.

3.2.480 Institutional training. Individual training conducted in a school or training center of a centralized training organization.

3.2.481 Instruction. The delivery of information to enable learning. The process by which knowledge and skills are transferred to students. Instruction applies to both training and education.

3.2.482 Instructional activity. An event, presented by an instructional source, intended to promote student learning. Also, see the definition for “learner activity”.

3.2.483 Instructional class. A group of students being trained under a formal training syllabus.

3.2.484 Instructional class capacity. The number of students that may attend an iteration of an instructional unit.

3.2.485 Instructional class frequency. The number of times a course will convene during a specified period of time. Also called “class frequency”.

3.2.486 Instructional concept. An initial estimate of what the instruction should do, and what it should look like.

3.2.487 Instructional conditions. Atmosphere including environmental, physical, and psychological factors. The amount of participation that the instruction requires of the student. Instructional conditions may be active (the student produces or practices) or passive (the student sits and listens).

3.2.488 Instructional delivery mode. The communication format (e.g., electronically distributed, instructor led, etc.) which will be used to convey the instruction.

3.2.489 Instructional delivery system. Instructional delivery systems such as training devices, training equipment, training aids, and/or Interactive Multimedia Instruction (IMI) which are used to convey the instruction.

3.2.490 Instructional design. The philosophy, methodology, and approach used to deliver information. Some courseware aspects include question strategy, level of interaction, reinforcement, and branching complexity.

3.2.491 Instructional hour. An hour in the instructional day consisting of 50 minutes of contact time normally followed with a 10 minute break.

3.2.492 Instructional literature. Printed material used in the learning process, including that developed for a specific purpose, and other printed matter procured.

3.2.493 Instructional material. All items of material prepared, procured, and used in a course or program as part of the teaching or general learning process.

3.2.494 Instructional media. The means used to present information to a trainee to induce learning.

3.2.495 Instructional media delivery system. Personnel and equipment used to aid in the teaching-learning process. Some examples of delivery systems include instructors, video, projectors, computers, tape players, and videodisc players.

3.2.496 Instructional method. A component of the instructional strategy defining a particular means for accomplishing the objective. For example a traditional instructor led instructional strategy may be accomplished using the lecture method, a Socratic lecture technique, and a defined step-by-step questioning procedure. Also called “method of instruction”.

3.2.497 Instructional module. A self-contained instructional unit that includes one or more learning objectives, appropriate learning materials and methods, and associated criterion-reference measures.

3.2.498 Instructional object. An object-based, standalone basic building block used to construct instructional lessons and instructional modules. Objects may be a game, a fact, a JPEG, or GIF, an AVI file, templates, etc. Objects may have conditions placed upon them such as accessibility, interoperability, durability, and reusability. See the definition for “object”. Also called “learning objects”.

3.2.499 Instructional program. A course of study that meets a training requirement.

3.2.500 Instructional requirements. The knowledge, skills, and attitudes that are necessary to satisfy job performance.

3.2.501 Instructional setting. The location and physical characteristics of the area in which instruction takes place. The setting can be in a classroom, a laboratory, a field, or workplace location. An example is: a clean, well lighted, temperature controlled classroom equipped with individual desks, chairs, and individual video monitors.

3.2.502 Instructional site. A physical location where specific instruction is to be accomplished (i.e., school, unit, job site).

3.2.503 Instructional step. A portion of material to which the student makes a response. It is a stage in the instructional process that represents progress in the student's mastery. A subject to be taught is broken down into frames, items, or segments (steps). It is assumed that students cannot take later steps in a given sequence before taking the earlier step and that each segment or item represents a step forward.

3.2.504 Instructional strategy. The general concept by which instruction is to be delivered to the student (e.g., programmed learning, traditional learning, exercise learning, small group learning, pure group learning, mentor or apprentice learning, etc.).

3.2.505 Instructional support. Learning resources; different kinds of material, number of instructors, amount of time, and other resources, which will contribute to the completion of the learning process.

3.2.506 Instructional system. An integrated combination of all elements (e.g., training material and equipment, personnel, support) necessary to conduct training. Also called “training system”.

3.2.507 Instructional Systems Development (ISD). A process for the analysis, design, development, implementation, evaluation, revision, and operation of a collection of

interrelated training elements. A logical process for effectively and efficiently determining what, where, when, and how tasks should be taught. A process for effectively and efficiently achieving a required outcome based on documented needs. A process in which performance requirements are explicitly defined from an analysis which occurs in a training development effort; includes a subsequent specification of performance requirements in terms of behavior objectives; is followed by the development of criterion tests which match job performance; and, with the appropriate curriculum development efforts supporting training on specified objectives. The entire process undergoes extensive evaluation to ensure the validity of the process. Also see the definition for “Systems Approach to Training (SAT)”.

3.2.508 Instructional technique. A means of instruction that complements a method, such as questioning.

3.2.509 Instructional technology. A systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communication, and employing a combination of human and non-human resources to bring about more effective instruction.

3.2.510 Instructional unit. An assembly of lessons that have been integrated either to complete a usable bit of knowledge or skill or to aid in scheduling a course or program. The basic components of courses. Also see the definitions for "course", “lesson”, and “module”.

3.2.511 Instruction sheet. A generic term for any of a variety of single-purpose, single-page, or multiple-page guide sheets designed to give the student certain detailed information or instruction about a task to be performed or a learner activity to be undertaken (e.g., assignment, diagram, information, job, outline, note taking, problem solving).

3.2.512 Instructor. An individual who presents instruction. Also called “trainer”.

3.2.513 Instructor and Key Personnel Training (IKPT). Training provided to instructors and key personnel to facilitate training development of new systems or equipment. Also see the definitions for “cadre training” and “new equipment training”.

3.2.514 Instructor certification. A confirmation of an instructor’s ability to teach.

3.2.515 Instructor Contact Hour (ICH). The manpower work load factor which represents one instructor work hour devoted to conducting training.

3.2.516 Instructor control console. A device that provides an instructor the capability for monitoring and evaluating the actions of students and controlling various functions of the training device.

3.2.517 Instructor evaluation. A determination of value or quality of an instructor’s teaching ability, knowledge, and skill.

3.2.518 Instructor guide. A course level publication designed to provide the administrator of instructional materials with information about the objectives of the materials, the procedures involved in their development, suggestions for their optimal use, and descriptions of what might be expected from the materials based on their previous effectiveness.

3.2.519 Instructor qualification. A confirmation of an instructor's ability to teach a specific lesson.

3.2.520 Instructor training. The training of personnel in the techniques of teaching to qualify them as instructors.

3.2.521 Integrated circuit. A complete electronic circuit (the path along which electronic current travels) chemically printed on the surface of a single chip of semiconductor material (such as silicon).

3.2.522 Integrated system. A collection of hardware and software sold as a single unit by a system integrator.

3.2.523 Intelligent Computer-Assisted Instruction (ICAI). Computer-based instructional dialogue based upon techniques in artificial intelligence.

3.2.524 Intelligent terminal. A terminal that has the capability to function as a computer and process data. Also called "smart terminal".

3.2.525 Intelligent videodisc player. A videodisc player with built-in processing power and memory capability.

3.2.526 Interactive. The direct and active participation in an event or activity. When applied to instruction, interactivity involves the direct and active participation of the student in the instructional events.

3.2.527 Interactive Courseware (ICW). ICW is computer controlled courseware that relies on trainee input to determine the pace, sequence, and content of training delivery using more than one type medium to convey the content of instruction. ICW can link a combination of media, to include but not be limited to; programmed instruction, videotapes, slides, film, television, text, graphics, digital audio, animation, and up to full motion video, to enhance the learning process.

3.2.528 Interactive Courseware (ICW) support software. Software that supports application unique ICW requirements (e.g., simulation models, unique device drivers, and course management features not supported by authoring systems).

3.2.529 Interactive Electronic Technical Manuals (IETMs). An IETM is a technical manual delivered electronically. The IETM possesses the following three characteristics 1) it can be presented either on a desktop workstation or a portable device, 2) the elements of data constituting the IETM are so interrelated that a user's access to the information is achievable by a variety of paths, and 3) it can function to provide procedural guidance, navigational directions, and other technical information required by the user.

3.2.530 Interactive media. A delivery vehicle that provides for direct and active participation in an event or activity. When applied to instruction, it provides capability for the direct and active participation of the student in an instructional event.

3.2.531 Interactive Multimedia Association (IMA). An association of organizations, institutions, individuals actively involved in the production and use of interactive technology and optical media systems, and those who provide services to the industry. (Formerly called “Interactive Video Industry Association (IVIA)”).

3.2.532 Interactive Multimedia Instruction (IMI). IMI is a term applied to a group of predominantly interactive, electronically-delivered training and training support products. IMI products include instructional software and software management tools used in support of instructional programs.

3.2.533 Interactive training system. An instructional system that requires a student to interact with the system through the learning process.

3.2.534 Interactive Video Disk (IVD). A video disk is used with Interactive Courseware (ICW) to supplement/enhance and/or present instruction. Visual information presented is contingent on student responses (i.e., branching). Media for storing video images.

3.2.535 Interactive Video Industry Association (IVIA). Identical to the definition for "Interactive Mulitmedia Association (IMA)".

3.2.536 Interactivity. Acting or capable of acting on each other. A two-way communication in which stimuli/response is direct and continual.

3.2.537 Interchangeability. The ability to exchange hardware components having the same form, fit, and function, across platforms, without affecting the functionality of the system.

3.2.538 Interface. The link between the human and equipment or between two pieces of equipment, allowing them to communicate with each other. A physical or functional connection between two or more devices or systems.

3.2.539 Interim summary. A segment of instruction that reviews recent learning to reinforce prior information.

3.2.540 Interlace. The process of laying down the even numbered lines of video between the previously scanned odd numbered lines of video to form a single, complete frame and reducing flicker. The pattern described by the two separate video field scans when they join to form a complete video frame.

3.2.541 Interleaving. A method of storing information sequences in alternating sectors.

3.2.542 Internal evaluation. The quality control process of conducting a thorough review of the instructional process by appraising student progress, delivery technique, materials effectiveness, and testing procedures for the purpose of identifying internal deficiencies requiring correction, and recommending specific changes.

3.2.543 International Business Machines (IBM) compatible. A personal computer that is 100 percent compatible in form and function with the IBM Personal Computer (PC) family of personal computers.

3.2.544 Interoperability. The ability of hardware, software, systems, or services to function together without regard to manufacturer or service provider.

3.2.545 Interpreter. A computer program that converts input into data that is understood and usable by a computer.

3.2.546 Interrupt. An instruction that temporarily stops the normal operation of a routine by a special signal from the computer. Normal operation can be resumed from that point at a later time.

3.2.547 Interservice school or course. A school or course that presents a curriculum developed and approved by two or more military Services to meet the specified training requirements of those Services.

3.2.548 Interservice support. Support provided by one federal agency or subdivision thereof to another federal agency or subdivision thereof when at least one of the participating agencies or subdivisions is the DoD or a DoD Component. DoD 4000.19-R provides guidance and procedures for the implementation of this support.

3.2.549 Introduction. A major section of a lesson designed to establish a common ground between the presenter and students, to capture and hold attention, to outline the lesson and relate it to the overall course, to point out benefits to the student, and to lead the student into the body of the lesson; usually contains attention step, motivation step, and overview. A segment that provides a general statement of the course content, target population, why the student is studying the material, and appropriate motivation to gain the student's attention.

3.2.550 Introduction to Fighter Fundamentals (IFF). A program that takes potential fighter aircrew and familiarizes them with the basics of flying fighter aircraft.

3.2.551 Job. The duties, tasks, and task elements performed by one individual that constitutes their job. The job is the basic unit used in carrying out the personnel actions of selection, training, classification, and assignment.

3.2.552 Job Aid (JA). A checklist, procedural guide, decision table, worksheet, algorithm, or other device used by job incumbents to aid in task performance.

3.2.553 Job analysis. The basic method used to obtain facts about a job, involving observation of workers, conversations with those who know the job, analysis questionnaires completed by job incumbents, or study of documents involved in performance of the job.

3.2.554 Job sheet. An instruction sheet that provides the student with the step-by-step procedures required for the performance of tasks or functions. Job sheets also provide the student with the objective(s) to be accomplished, a list of references, and equipment required, and provides self test questions.

3.2.555 Job task analysis. A process of examining a specific job to identify all the duties and tasks that are performed by the job incumbent at a given skill level.

3.2.556 Job Task Inventory (JTI). Results of information gathering in job analysis. Lists of duties and tasks, varying in refinement from basic input data to duties and tasks that constitute the job performed by incumbents within a rating/Military Occupational Skill (MOS)/Air Force Specialty (AFS). Critical tasks for the job are derived from this inventory. Also called "task inventory" or “total task inventory”.

3.2.557 Joint school or course. A school or course, used by two or more services, which has a joint faculty. The director (commandant), who is provided on a rotational basis by the services, is responsible, under the direction of the Joint Chiefs of Staff, for the development and administration of the curriculum.

3.2.558 Joint training. Training in which elements of more than one service of the same nation participate.

3.2.559 Journeyman. A person who has learned a trade and works for another person in that specialty.

3.2.560 Joystick. A device that consists of a control lever that when tilted in various directions, provides positional information. The lever has its motion and direction of movement transformed into X-Y values or coordinates.

3.2.561 Jury of experts. A group of subject matter experts selected to record, organize, pass judgment, and make predictions and recommendations on data and other matters related to the specific field or area of expertise.

3.2.562 Key elements. Elements that represent the most important part of a task. Key elements are those which have been identified as being the most common sources of failure in performance of a task or as having serious consequences of failure. Also called "element".

3.2.563 Keyer. Signal processing device that cuts a hole in the background video and fills in the hole from a different video source (e.g., computer-generated text and graphics keyed over National Television Standards Committee (NTSC) video).

3.2.564 Keying. An electronic effect that cuts an image from one video source into a background image from another video source.

3.2.565 Keypad. A small keyboard or keyboard section containing a small number of keys dedicated to specific functions and used as an input device.

3.2.566 Key words. Words, written in a high-level computing language that the computer recognizes, often used as short-cuts in computer programming and in specific applications such as training. These words can also be used in judging a student's free form response.

3.2.567 Kilohertz (kHz). One thousand hertz per second.

3.2.568 Knowledge. Specific information required for the student to develop the skills and attitudes for effective accomplishment of the jobs, duties, and tasks.

3.2.569 Knowledge learning type. A level of information required for performance of skills.

3.2.570 Knowledge-level summary. A reiteration of key points of content in a knowledge-level lesson designed to enhance a student's ability to remember facts.

3.2.571 LASER (Light Amplification by Stimulated Emission of Radiation). An amplifier and generator of coherent energy in the electromagnetic spectrum. A laser is used to read the micropits on an optical disk.

3.2.572 Layer. A group of related functions that make up one level of an architecture.

3.2.573 Layered architecture. A software structure in which components are grouped in a hierarchical arrangement in such a way that each layer provides functions and services to adjacent layers.

3.2.574 Leader task. An individual task performed by a leader that is integral to successful performance of a collective task.

3.2.575 Lead-off question. A question initiated by the presenter that is usually directed to a group of students at the beginning of a lesson or main point and designed to generate discussion.

3.2.576 Learner. Identical to the definition for "student". Also called “trainee”.

3.2.577 Learner activity. Student response to an instructional activity. Also, see the definition for “instructional activity.”

3.2.578 Learner characteristics. The traits, such as reading level, possessed by learners that could affect their ability to learn. These characteristics are included in the target population description.

3.2.579 Learner control. Identical to the definition for “student control”.

3.2.580 Learner controlled instruction. Identical to the definition for “student controlled instruction”.

3.2.581 Learning. The act, process, or experience of gaining knowledge or skill. The result of learning is a change in the behavior of the student. The behavior can be physical and overt, intellectual, attitudinal, or a combination of these types of behavior.

3.2.582 Learning analysis. A procedure to identify task sub-elements and their related skills and knowledge that must be learned before a person can achieve mastery of the training task itself.

3.2.583 Learning center. A facility especially equipped to accommodate groups of students in a classroom, individualized, or self-paced instructional mode. A learning environment that has been specifically developed to foster individualized instruction and which emphasizes employment of instructional media to augment textbooks and manuals. Also see the definition for "learning resource center".

3.2.584 Learning decay. A decrease of learned skills over a period of time. Decay can be retarded by the conduct of sustainment training.

3.2.585 Learning difficulty. A measurement of the time, effort, and assistance required to achieve performance proficiency.

3.2.586 Learning hierarchy. A graphic display of the relationships among learning objectives in which some learning objectives must be mastered before others can be learned.

3.2.587 Learning level. A step within the hierarchy of each learning type. Each learning type is divided into a hierarchy consisting of levels which progress from the simple to the complex. These levels include fact learning, rule learning, procedure learning, problem solving, gross motor skills, etc. Also see the definition for “learning type”.

3.2.588 Learning Objective (LO). A statement of the behavior or performance expected of a trainee as a result of a learning experience, expressed in terms of the behavior, the conditions under which it is to be exhibited, and the standards to which it will be performed or demonstrated. Also called "behavioral objective" and "training objective".

3.2.589 Learning resource center. A library containing instructional materials and areas for viewing and studying. Also see the definition for "learning center".

3.2.590 Learning station. A physical location such as a study carrel, which contains special materials and equipment for use by a student to learn.

3.2.591 Learning step. A sub-unit of a learning objective derived when the learning objective is analyzed into its component parts.

3.2.592 Learning type. The categories of change in human behavior as related to training. The three types are knowledge, skills, and attitudes. Also see the definition for “learning level”.

3.2.593 Lecture. A communication method primarily involving verbal presentation of information. Also see the definitions for "formal lecture" and "informal lecture".

3.2.594 Lecture Guide (LG). A data sheet and an outline of major sections, key topics, learning objectives and discussion points that are referenced to the instructional media being used.

3.2.595 Legibility. The clarity of an image allowing it to be read or deciphered.

3.2.596 Lesson. A segment of instruction that contains one or more learning objectives, information to be imparted to the student, and may contain an evaluation instrument. The lesson is designed in detail and is the basic building block of all training Also see the definitions for “course”, “instructional unit”, and “module”.

3.2.597 Lesson design strategy. A plan for how courseware will be produced and how it will look as an end product. A description of the decision making processes and methods in designing and implementing the presentation of material and testing student mastery of subject matter.

3.2.598 Lesson format guide. An organized outline of a single lesson that serves as a blueprint for the development of all lessons within a course.

3.2.599 Lesson plan. A plan for instruction that provides specific definition and direction to the instructor on learning objectives, equipment, instructional media material requirements, and conduct of the training. Lesson plans are the principal component of curriculum materials in that they sequence the presentation of learning stimuli and coordinate the use of supporting instructional materials.

3.2.600 Lesson summary. A segment of an instruction during which the presenter reiterates key points of lesson content (knowledge level) or reviews and expands on key material and develops relationships that lead to generalizations (comprehension level).

3.2.601 Level of accuracy. A value normally expressed in percentage terms which relates to the percentage of the data found to be correct.

3.2.602 Level of learning. The degree to which a student is expected to develop knowledge or understanding of a subject, learn facts, internalize a set of values, or display proficiency in a psychomotor skill.

3.2.603 Levels of interactivity. A two-way communication in which stimuli/response is direct and continual. Interactivity describes the degree of student involvement/interactivity in the instructional activity. There are four levels of interactivity, they are:

a. Level 1 - Passive. The student acts solely as a receiver of information.
b. Level 2 - Limited participation. The student makes simple responses to instructional cues.
c. Level 3 -Complex participation. The student makes a variety of responses using varied techniques in response to instructional cues.
d. Level 4 - Real-time participation. The student is directly involved in a life-like set of complex cues and responses.

3.2.604 Life-cycle maintenance capability. The ability to update, modify, and otherwise change training materials and/or equipment after delivery.

3.2.605 Life Cycle Model (LCM). Outlines the life cycle of an acquisition system from materiel concept investigation, through development and acquisition, until ultimate phase out and disposal. Materiel acquisition may initiate training requirements.

3.2.606 Light Emitting Diode (LED). A semiconductor light source that emits visible light or invisible infrared radiation.

3.2.607 Linear. A uni-dimensional or straight line structure or sequence.

3.2.608 Linear lesson design. A type of lesson design in which a student is presented with uni-dimensional or straight line sequential material.

3.2.609 Linear program. A program, either motion or text, that plays a uni-dimensional or straight line sequence (such as videotape) rather than branching.

3.2.610 Linear programming. A programming method in which set sequences of frames require a response from the student at each step. The steps are so designed that errors will be minimal for even the slower students in the target population. Each student completes each frame in the program, their progress differing from that of other students going through the same program only in the rate at which they proceed through the sequence.

3.2.611 Linear video. A uni-dimensional straight line sequence of frames displaying a still image or a single flow of motion.

3.2.612 Line driver. A signal converter that conditions a digital signal to ensure reliable transmission over an extended distance.

3.2.613 Line monitor. The monitor that shows only the "line-out" pictures that are to be used in the final edited production. Also called "master monitor".

3.2.614 Line oriented. An authoring system in which the author designs a program, including screens of text or graphics, as a long string of commands to the computer.

3.2.615 Line standard. The video production standard that describes the number of scan lines used by a given television system to make up one screen.

3.2.616 LISP. From List Processing. A high-level computer language designed to teach programming, and now used for artificial intelligence applications. The first computer language to concentrate on working with symbols instead of numbers.

3.2.617 Live action. An image on film or video of something happening in the real world, as it was seen and heard with the camera and sound equipment.

3.2.618 Local Area Network (LAN). All physical hardware and software that drives a data communications computer system confined to a limited geographic area. The area served may consist of a single building, a cluster of buildings, or a campus type arrangement.

3.2.619 Local workstation/terminal. A terminal with direct communication to the mainframe computer.

3.2.620 Lock-step instruction. Identical to the definition for “group-lock step instruction”.

3.2.621 Logic. The basic principles and applications of truth tables, the relationships of propositions, the connection of on-off circuit elements, and other factors, for mathematical computation in a computer.

3.2.622 Logical colors. The number of colors that can be displayed simultaneously by a graphics adapter is the number of available logical colors. For example, an adapter might support 16 logical colors from a palette of 4096 physical colors.

3.2.623 Logical data model. A model of the data stores and flows of the organization derived from the conceptual business model. Also see the definition for “physical data model”.

3.2.624 Logical device. A conceptual device synthesized from the characteristics of peripherals.

3.2.625 Logistics support. Materiel and personnel resources and processes required to support a system. Also see the definition for “acquisition logistics”.

3.2.626 Longitudinal time code. Time code recorded as an audio signal, usually on linear track two or three of the videotape.

3.2.627 Loop. The repeated execution of a series of instructions.

3.2.628 Low-level language. A computer programming language in which each statement is translated into a single machine instruction (e.g., assembly language). A computer programming language that is closely related to the computer's own binary machine code.

3.2.629 Lumen. A measurement equivalent to the light emitted in a solid angle from a uniform point source of one candle intensity.

3.2.630 Luminance. Brightness. A measure of relative brightness of different spectral stimuli. An analog measure of the distribution of brightness levels associated with monochrome.

3.2.631 Lux. A measurement of illumination (the amount of light received by an object). The metric equivalent of foot-candle.

3.2.632 Machine language. The binary code that is the computer's native language. A set of binary codes used to express computer instructions and data in a directly executable form. The internal language of a computer by which its hardware is able to function. No further translation to a lower level language is required to execute. Also called "machine code".

3.2.633 Machine readable. Data stored in such a way it can be retrieved by a computer but not necessarily by a user.

3.2.634 Macro. A group of user-definable instructions that can be activated together when needed.

3.2.635 Magnetic storage. Any medium upon which information is encoded as variations in magnetic polarity.

3.2.636 Magnetic tape. A thin, strong, non-elastic tape coated with a ferromagnetic emulsion, which can record, store and play back information of various kinds.

3.2.637 Magneto-optics. An information storage medium that is magnetically sensitive only at high temperatures, while stable at normal temperatures. A laser is used to heat a small spot on the medium, changing the polarity at that spot thereby storing data.

3.2.638 Mainframe. A large powerful computer, often serving several terminals.

3.2.639 Main memory. That memory that is directly accessible by the computer. Main memory is referred to as Random Access Memory (RAM) or Read-Only Memory (ROM).

3.2.640 Main points. The logical breakdown of subject matter in support of an instructional objective.

3.2.641 Maintenance. The physical act of preventing, determining, and correcting equipment or software faults. It includes all actions taken to retain system/equipment/product in a useful serviceable condition or to restore it to usefulness/serviceability. Maintenance includes inspection, fault isolation, testing, and servicing.

3.2.642 Maintenance concept. An element of logistics support which involves the planned or envisioned methods that will be employed to sustain the system/equipment/ product at a defined level of readiness, usability, or in a specified condition in support of the operational requirement. The maintenance concept is initially stated by the Government for design and support planning purposes and provides the basis or point of departure for development of the plan to maintain.

3.2.643 Maintenance trainer. A trainer on which individuals learn the methods and procedures necessary to maintain a specific system, subsystem, or equipment.

3.2.644 Maintenance training simulator. A device, usually computer-controlled, that simulates operational equipment and allows students to practice maintenance tasks or procedures.

3.2.645 Main trunk. The principal course or line of direction of a program or Interactive Courseware (ICW).

3.2.646 Managed On-the-Job Training. See the definition for “Supervised On-the-Job Training (OJT)”.

3.2.647 Management materials. Materials that define training requirements and provide an overall plan for the accomplishment of these requirements.

3.2.648 Management plan. A program for the assignment, monitoring, and assessment of the personnel, materials, and resources dedicated to a specific mission, operation, or function.

3.2.649 Mandatory release date. Refers to the date at which individuals must be released from training to return to their home station.

3.2.650 Manning. The specific inventory of people at an activity in terms of numbers, grades, and occupational groups.

3.2.651 Manpower. The requirements or billets needed in an organization, to accomplish a task or service.

3.2.652 Manpower and Personnel Integration (MANPRINT). The Army process of integrating manpower, personnel, training, human factors engineering, health hazard assessment, and system safety into a system through the materiel development and

acquisition process. It uses analytical models to help man-machine systems reach maximum performance. The models help predict manpower, personnel, and training needs by considering human factors engineering, manpower, personnel, training, safety, and health hazards.

3.2.653 Manpower, Personnel, and Training (MP&T) analysis. Manpower analysis consists of identification of tasks and work-hours required to perform a job or function. Personnel analysis consists of identification of ratings and occupational specialties and skill levels required to perform the job or function. Training analysis consists of identification of training tasks or functions required for personnel to obtain skill levels necessary to operate and maintain the system, subsystem, or equipment.

3.2.654 Manual playback. Viewer operation without use of programmed control instructions.

3.2.655 Mark sense form. Computer readable sheets on which the individuals record identifying information and answers to test items.

3.2.656 Mastering. A process in which the premaster videotape is used to modulate a laser onto a photosensitive, glass master disk; the manufacturing process that creates a glass master, and then a metal mold disk, from which others (plastic substrate) are replicated.

3.2.657 Master reproducible. The final edited version of a product used to make distribution copies.

3.2.658 Master schedule. A schedule of instruction, prepared by the training activity, to indicate the period-by-period program for each day and week of the course.

3.2.659 Master skill level. The highest level of proficiency in an occupational specialty.

3.2.660 Mastery. Attainment of a competency or proficiency in an ability.

3.2.661 Mastery learning. An approach to curriculum development in which students progress from learning experience to learning experience based upon achievement of instructional objectives rather than other factors such as age, effort, or time of year.

3.2.662 Materials Preparing Activity (MPA). An organization that develops training materials, prepares major changes or revisions, and produces training materials as directed by the contracting activity. MPAs may be either contractors or training facilities.

3.2.663 Matt. The keying of two scenes; the electronic laying in of a background image behind a foreground scene.

3.2.664 Maximum class size. The largest number of students in a class that can be trained with acceptable degradation in the training effectiveness due to manpower, facility, or equipment constraints.

3.2.665 Mean deviation. The arithmetic mean (average) of the absolute differences between the arithmetic mean of the values and the individual values. Also called "standard deviation".

3.2.666 Mean Time Between Failure (MTBF). The average length of time that a system or component works without failure.

3.2.667 Mean Time To Repair (MTTR). The average time it takes between system failure and repair.

3.2.668 Measurement errors. Errors that occur due to unreliability of the measurement process. These errors are random and are never completely absent. In addition, these may be systematic (non-random) errors due to some fault in the measurement process.

3.2.669 Measurement process. The operations involved in determining the amount of an attribute (e.g., skills, knowledge, or attitude) possessed by a student.

3.2.670 Media. The delivery vehicle for presenting stimuli. Also called “training media”.

3.2.671 Media alternative. A substitute means for presenting stimuli

3.2.672 Media delivery format. The physical characteristics of the instructional material presentation medium (e.g., printed materials, overhead transparencies, 35mm slides, etc.).

3.2.673 Media selection. The process of selecting a media delivery vehicle.

3.2.674 Megahertz (MHz). One million hertz.

3.2.675 Memorandum Of Understanding (MOU). A jointly prepared and authenticated document between participants in a joint project.

3.2.676 Mental skills. Those processes of identifying, classifying, using rules, and solving problems that involve active mental processing. Mental skills include such functions as thinking, reasoning, analyzing, judging, and inferring. Also see the definition for "physical skills".

3.2.677 Metaskills. Cognitive strategies that an individual applies to the processing of new information in a novel situation (a scenario not previously experienced). These skills include chunking or organizing new information, recalling relevant schemas, adding the new information to the old schemas, and creating new schemas.

3.2.678 Method of instruction. Identical to the definition for “instructional method”.

3.2.679 Microsoft-Disk Operating System (MS-DOS). A general purpose computer disk operating system developed by Microsoft and used on microcomputers. This term is used generically for operating systems including Microsoft MS-DOS versions 2.0 and higher and compatible operating systems such as IBM PC-DOS versions 2.0 and higher.

3.2.680 Milestone. A significant or important event in a program or project.

3.2.681 Military Occupational Specialty (MOS). A term used to identify a grouping of duty positions possessing such close occupational or functional relationship that an optimal degree of interchangeability among persons so classified exists at any given level of skill.

3.2.682 Military Service school or course. A school or course that presents a curriculum developed and approved by a military Service to meet a specified training requirement of that Service.

3.2.683 Military training. The instruction provided to personnel to develop capability to perform specific military functions and tasks, and to enhance their knowledge of the science and art of war.

3.2.684 Millisecond. One-thousandth of a second.

3.2.685 Mission. A statement of purpose that clearly indicates the actions to be taken and the reasons.

3.2.686 Mission analysis. A process of identifying the requirements for accomplishing a mission including unit organizational and functional structure, developing a mission matrix, deriving a mission by echelon list, and identifying critical collective tasks.

3.2.687 Mission outlines. Graphic portrayals of the relationships between critical wartime missions and the tasks supporting those missions.

3.2.688 Mission Training Plan (MTP). A descriptive training document that provides an inventory of tasks to train and a suggested method for training these tasks to achieve wartime mission proficiency.

3.2.689 Mnemonics. A technique such as a formula, rhyme, or abbreviation used as a memory aid.

3.2.690 Mobile Training Team (MTT). Any group of personnel and training equipment gathered together to provide instruction on some subject or in some area of endeavor, available for movement from place to place in order to provide instruction at the various locations concerned.

3.2.691 Mock-up. A three-dimensional training aid designed to represent operational equipment. It may be a scaled or a cutaway model and may be capable of disassembly or operational simulation.

3.2.692 Model, physical. A static or dynamic training aid, which is representative of operational equipment, or one or more of the parts, assemblies, or systems in which all spatial and sequential relationships are presented.

3.2.693 Mode of instruction. The communication format, (e.g., electronically distributed, instructor led, etc.) which will be used to convey the instruction.

3.2.694 Modular. Consisting of independent units which may be used as part of a total structure or may be used independently.

3.2.695 Modular construction. The positioning of modules or groups of information within a training program.

3.2.696 Modularization. The design and construction of a system comprised of modules.

3.2.697 Modulation. Modifying characteristics of a waveform.

3.2.698 Module. A stand-alone instructional unit that is designed to satisfy one or more learning objectives. A separate component complete within itself that can be taught, measured, and evaluated for a change or bypassed as a whole; one that is interchangeable with others, used for assembly into units of differing size, complexity, or function. A module consists of one or more lessons. Also see the definitions for "course", “instructional unit”, and "lesson". Also called “annex” or “subcourse”.

3.2.699 Monitor. An electronic device, similar to a television set, which receives and displays a non-broadcast signal. A Cathode Ray Tube (CRT) or Red-Green-Blue (RGB) screen that may accept either video signals, computer display information, or both. Also see the definition for "video display unit". Also called "computer screen".

3.2.700 Montage. A composite picture made by bringing together into a single composition a number of different pictures or parts of pictures and arranging these, as by superimposing one on another, so that they form a blended whole while remaining distinct.

3.2.701 Motherboard. The primary hardware circuit board of a computer on which the Central Processing Unit (CPU) resides.

3.2.702 Motivational device. A design element that causes and sustains interest or regulates activity for the purpose of causing the student to perform in a desired way.

3.2.703 Motivation step. A segment of a lesson introduction in which a presenter provides specific reasons why students need to learn the information being presented.

3.2.704 Mouse. A movable input device that, when moved about a flat surface, has its motion and direction of movement transformed into positional information (X-Y values or coordinates) for the display cursor. Buttons located on the mouse also return inputs to the computer.

3.2.705 Multilevel instruction. Training that has various degrees of difficulty and strategy.

3.2.706 Multimedia. Combining static media (i.e., text and pictures) with dynamic media (i.e., sound, video, and animation) on the same system.

3.2.707 Multimedia package. A self-contained instructional unit in more than one presentation medium.

3.2.708 Multiple screen. Use of more than one display screen, simultaneously or alternately.

3.2.709 Multiplexer. A device that allows several devices to share one channel of communication.

3.2.710 Multiprocessing. The use of a computer's central processor that permits the simultaneous processing of different data.

3.2.711 Multitasking. The ability to permit simultaneous processing of more than one task.

3.2.712 Multi-track audio tape recorder. An audio recording machine capable of recording several discrete audio tracks onto audio tape.

3.2.713 Multi-track course. A course that employs more than one track or channel of instruction. Course goals are the same on all channels, but course content, degree of instruction, and presentation all vary to accommodate students of different aptitudes and levels of previously acquired cognitive and psychomotor skills.

3.2.714 Mutable. The capability of silencing the audio output.

3.2.715 Nanosecond. One-billionth of a second.

3.2.716 Narrative script. A report that describes audio and video requirements for all video shots containing audio.

3.2.717 National Television Standards Committee (NTSC). A committee of the Electronics Industries Association (EIA) that prepared the standard specifications approved by the Federal Communications Commission (FCC). The American color television standard specifications are 525 scan lines, a field frequency of 60 Hz, a broadcast bandwidth of 4 MHz, line frequency of 15.75 kHz, frame frequency of 1/30 of a second, field frequency of 1/60 of a second, and a color subcarrier frequency of 3.58 MHz.

3.2.718 Navy Enlisted Classification (NEC). Codes that reflect special skills and knowledge that identify personnel and requirements when the rating structure is insufficient by itself for manpower management purposes. Completion of an advanced school is often a requirement for awarding a NEC.

3.2.719 Needs analysis. Systematic in-depth analysis and verification of training discrepancies and emerging needs identified by a needs assessment. The results of the Needs Analysis are the definition of performance deficiencies and the isolation of potential solutions. This analytical process addresses the specific nature of the deficiency.

3.2.720 Needs assessment. The systematic process for identifying the causes of discrepancies between what exists and what is currently required, and for identifying the causes of potential discrepancies between current and future requirements. The process in which performance discrepancies are focused upon to determine where the discrepancies exist (e.g., environmental, training, instruction, personnel, equipment).

3.2.721 Negative reinforcement. A reward for an undesired behavior.

3.2.722 Negative transfer. The application of a method or procedure inappropriate for a new or different situation.

3.2.723 Nest. To embed a subroutine or block of data into a larger routine or block of data.

3.2.724 Network. Two or more interconnected computers capable of using the same programs and sharing data.

3.2.725 New equipment training. Training to transfer knowledge gained during materiel development to trainers, users, and support personnel during development and fielding of new equipment. Also see the definitions for “cadre training” and “instructor and key personnel training”.

3.2.726 Node. A point of interconnection to a network. Normally, a point at which a number of terminals or circuits connect to the network.

3.2.727 Noise. Any unwanted signal present in the total recorded signal. One signal interfering with another. Random spurts of electrical energy or interference.

3.2.728 Nonacademic drop or attrite. A student who is disenrolled from the course for reasons not related to the academic requirements prescribed in the course curriculum; that is, medical, legal, and other nonacademic requirements.

3.2.729 Non-Government standard. A standardization document developed by a private sector association, organization, or technical society which plans, develops, establishes, or coordinates standards, specifications, handbooks, or related documents. Non-Government standards adopted by the DoD are listed in the Department of Defense Index of Specifications and Standards (DoDISS).

3.2.730 Non-interfering basis. Without disturbing regularly scheduled activities or equipment usage.

3.2.731 Nonlinear. Multi-dimensional and not in a straight line or uninterrupted form.

3.2.732 Nonperformer. An individual who cannot meet a specified performance standard for a designated task.

3.2.733 Nonprocedural task. A task whose composition does not lend itself to only one specified sequence of actions.

3.2.734 Nonresident training. Training that takes place outside the institutional (resident) training location.

3.2.735 Norm-referenced measurement. The process of determining a student's achievement in relation to other students. Also see the definition for “criterion referenced measurement”.

3.2.736 Object. An abstraction of a set of real-world things such that all of the real-world things in the set – the instances – have the same characteristics, and all instances are subject to and conform to the same rules. Also see the definition for “instructional object”.

3.2.737 Object-based. System applications made up of items that users see and use. Objects have a defined set of rules, set by the developers, that make them look and behave in fixed ways. Objects are modular in nature and may be used individually or in concert with other objects.

3.2.738 Object-oriented. Systems designed to operate using object-based applications.

3.2.739 Observation interview. A dialogue wherein a job incumbent is observed in the job environment performing all or a substantial part of the job. The job incumbent performs the job while the analyst asks questions and observes.

3.2.740 Occupational analysis. Relates to data interpretation regarding an occupational designator Air Force Specialty (AFS), Military Occupational Skill (MOS), rating or Navy Enlisted Code (NEC) to determine what jobs and tasks are performed within the occupation. Also may be used to assess the accuracy of classification and training documents.

3.2.741 Occupational Data, Analysis, Requirements and Structure (ODARS) program. A comprehensive system for collecting, processing, storing, and analyzing training and occupational information provided by job incumbents and their supervisors through the administration of survey questionnaires. ODARS provides empirical data for identifying individual critical tasks to training proponents.

3.2.742 Occupational specialty. A group of duty positions that require closely related knowledge and skills.

3.2.743 Occupational survey. A means of collecting detailed training and occupational information to be used in an occupational analysis.

3.2.744 Off camera. Performance or action that is not seen on the camera, during a shot, such as narration over film or videotape recording.

3.2.745 Offeror. An individual, agency, or business concern who submits a proposal in response to a Government Request For Proposal (RFP).

3.2.746 Officer Foundation Standards (OFS) system. A system that standardizes officer institutional training and provides a tool for individual officers and their commanders. It electronically supports officer training and leader development.

3.2.747 On-Board Training (OBT). Training provided at the command; similar to On-the-Job Training (OJT) and field training.

3.2.748 One-Station Unit Training (OSUT). Initial entry training conducted at one installation in one unit with the same cadre and one program of instruction.

3.2.749 One-way video. A satellite based teletraining system broadcasting from a studio facility. Students are able to see the instructor, but the instructor cannot see the students. Also see the definition for “two-way video”.

3.2.750 On-the-Job Training (OJT). Training in designated job skills provided at the job sites. Also see the definitions for “Formal On-the-Job Training (FOJT), “On-Board Training (OBT)”, and “Supervised On-the-Job Training (OJT)”.

3.2.751 On-the-Job Training (OJT) handbook. A document that supports learning at the job site.

3.2.752 Open-ended test item or open-ended response. A question that can be answered in a variety of ways (e.g., an essay).

3.2.753 Open entry and exit. A course of instruction that has no fixed start or completion date. A course of instruction commences without waiting for additional students to form a class. The student can enter the course whenever he is available. The student will be able to exit upon successful completion of the course without waiting for a fixed schedule completion date.

3.2.754 Open system architecture. A computer system designed with industry standard interface structure to allow for the addition of peripherals and internal cards for hardware and software upgrade and enhancement. A computer system designed to enable processors and input/output devices from different manufactures to exchange information.

3.2.755 Operational equipment. Actual equipment designed for use by operational units to accomplish their mission, as distinguished from that equipment designed only for training purposes.

3.2.756 Operational evaluation. Operational (field) tryouts of a system.

3.2.757 Operational Flight Trainer (OFT). Hardware and software, designed or modified exclusively for training basic flight. Involves simulation or stimulation in its construction or operation to demonstrate or illustrate a concept or simulate an operational circumstance or environment.

3.2.758 Operational training. Training that exercises previously acquired functional knowledge and system employment (operational) skills, to enhance proficiency and to identify deficiencies within a systematic training structure in the operational environment or in the simulated operational environment such as a trainer.

3.2.759 Operational trials. The determination of the validity of the training materials presented as a module or course based on using classes from target population.

3.2.760 Operations other than war. Military activities during peacetime and conflict that do not necessarily involve armed clashes between two organized forces.

3.2.761 Operator trainer. A trainer on which individuals learn the methods and procedures necessary to operate specific equipment (e.g., radar trainer, operational flight trainer).

3.2.762 Operator training. Instruction in which students are taught the methods, procedures, and skills necessary to manipulate the controls of specific system/equipment.

3.2.763 Optical disk. A disk whose information is read by a laser beam. Also see the definitions for "Compact Disc (CD)" and "videodisc".

3.2.764 Optical memory. Digital data stored on an optical disk used for mass storage of data.

3.2.765 Optimum class size. The largest number of students in a class that can be trained with no degradation in training effectiveness. The constraining factor is the availability of equipment, facilities, and manpower.

3.2.766 Original Equipment Manufacturer (OEM). The first prime manufacturer of the equipment.

3.2.767 Outline sheet. An instruction sheet that provides the student with an outline of the major teaching points in the topic.

3.2.768 Outsourcing. Contracting for goods and services required to conduct training.

3.2.769 Overlearning. Practice beyond what is required for retention. Also called “overtraining”.

3.2.770 Overt behavior. Behavior which is observable and measurable.

3.2.771 Package switching. The transfer of data by means of addressed packets whereby a channel is occupied only for the duration of transmission of the packet. The channel is then available for the transfer of other packets. The data network determines the routing during, rather than prior to, the transfer of a packet.

3.2.772 Packet. A group of bits transmitted as a whole.

3.2.773 Page-based data product. Human-readable or viewable documents in digital or hard copy format. These products display pages, illustrations, or other objects. Page-based training documents normally provide textual (prose) information and/or graphics that, as delivered, are suitable for use in an instructional environment (e.g., a hard-copy lesson plan, transparency, wall chart, graphic, etc.).

3.2.774 Pan. To move the camera horizontally to give a panoramic effect or follow a moving object.

3.2.775 Paper validation. The process of stepping through the Interactive Courseware (ICW) using storyboards/scripts on the actual delivery system.

3.2.776 Partial screen display. The computer's ability to erase a section of the screen.

3.2.777 Part-Task Trainer (PTT). A device that permits selected aspects of a task to be practiced independently of other elements of the task.

3.2.778 Part-task training. Subordinate skills training (operations/procedures) that resembles portions, or subtasks, and response of the actual system operation. A type of two-dimensional simulation.

3.2.779 Part-time training. Participation by personnel in training programs that occupy a part of the normal duty period, or are available outside the normal duty period, for participation on a basis less than would be expected of a full-time student.

3.2.780 Passive learning. Learning where no feedback is provided to a user's response.

3.2.781 Peer instruction. A method of instruction in which a student who has completed training will act as an instructor to another student in the skill or process to be learned.

3.2.782 Perceived instructional problem. The report or action that causes the conduct of a needs analysis. The report may be formal or informal. Also see the definition for “triggering circumstance”.

3.2.783 Performance. Part of a criterion objective that describes the observable student behavior (or the product of that behavior) that is acceptable to the instructor as proof that learning has occurred.

3.2.784 Performance-based instruction. Instruction which develops student performance proficiency via task-based learning objectives written with an action verb. Students prove competency by actual performance of the objectives to the established standards.

3.2.785 Performance checklist. The breakdown of a learning objective into elements that must be correctly performed to determine whether each student satisfactorily meets the performance standards described in the learning objective.

3.2.786 Performance criteria/standard. Part of a learning objective that describes the observable student behavior (or the product of that behavior) that is acceptable as proof that learning has occurred.

3.2.787 Performance deficiency. The inability of a unit or individual to perform the required tasks to the established standard.

3.2.788 Performance evaluation. A process of data collection and analysis to determine the success of students on a specific individual or collective task as a result of a training program.

3.2.789 Performance evaluation tools. Competency tests that allow the trainer to profile the student's proficiency and identify weak areas so that training can be efficiently planned for the areas of most critical need.

3.2.790 Performance exercise. A proficiency (criterion-referenced) test used to evaluate mastery of a task as specified by the criterion-referenced objective.

3.2.791 Performance gap. The delta between desired and actual performance.

3.2.792 Performance measures. The actions that can be objectively observed and measured to determine if a task performer has performed the task to the prescribed standard.

3.2.793 Performance objective. A precise statement of the performance expected of a student as the result of instruction, expressed in terms of the standards to which it will be performed or demonstrated. Also see the definition for "Learning Objective (LO)".

3.2.794 Performance-oriented training. Training in which learning is accomplished through performance of the tasks or supporting learning objectives under specific conditions until an established standard is met.

3.2.795 Performance requirements. The identification of the separate acts that are required to satisfactorily complete an individual's performance on the job. It includes the act (behavior), the conditions under which the behavior is performed and the standard of performance required by the incumbent.

3.2.796 Performance specification. A statement of requirements, in terms of the required results with criteria for verifying compliance, without stating the methods for achieving the required results. A performance specification defines the functional requirements for the item, the environment in which it must operate, and interface and interchangeability characteristics.

3.2.797 Performance step. A single discrete operation, movement, or action that comprises part of a task.

3.2.798 Performance-supervision phase. A phase of the demonstration-performance teaching method during which students practice the skill to be learned under the supervision of the instructor.

3.2.799 Peripheral device. An auxiliary device used with a computer (e.g., printer, keyboard, tape memory, modem, videodisc player, videotape player, bit pad, mouse, digitizing camera).

3.2.800 Personal Computer (PC) compatible. Refers to computers compatible with the IBM Personal Computer standard.

3.2.801 Personal performance standards. The specific behaviors that must be exhibited as the minimum acceptable by personnel in specified billets, jobs, or tasks, under specified conditions, in order that the unit to which personnel are assigned may (if all other functional entities perform to standards) achieve its identified purpose.

3.2.802 Personnel. The individuals who accomplish specific tasks.

3.2.803 Personnel Performance Profile (PPP) tables. A document that provides a minimum requirements listing of all knowledge and skills required to operate and maintain a system, subsystem or equipment, or to perform a task or function. PPPs are a basic element in the design, development, and management of training. The five types of PPPs are:

a. System. The System PPP table identifies the knowledge and skills required to operate and maintain a system. The System PPP identifies the interrelationship of subsystem functions within the system.
b. Subsystem. The Subsystem PPP table identifies the knowledge and skills required to operate and maintain a subsystem in sufficient detail to allow the user to identify the equipment integration.
c. Equipment. The Equipment PPP table identifies the knowledge and skills required to operate and maintain an individual equipment, or equipment assemblage, including software-related activities.

d. Task/Function. The Task/Function PPP table identifies the occupational specialty knowledge and skills that are either operational, maintenance, administrative/managerial, or specialized in nature and purpose, or that describe a mission that is broader in scope and importance than that of individual equipment being operated/maintained simultaneously or over time.
e. Background. The Background PPP table identifies the prerequisite knowledge and skills required to learn the operation and maintenance of a system, subsystem, equipment, or the performance of a task or function.

3.2.804 Personnel Qualification Standard (PQS). The PQS program is a method for qualifying officer and enlisted personnel to perform assigned duties. A PQS is a written compilation of knowledge and skills derived from task analysis, required to qualify for a specific watch-station, maintain a specific equipment or system, or perform as a team member within the assigned unit.

3.2.805 Phase. A major part of a training course that contains one or more modules. Also see the definition for “phased training”.

3.2.806 Phase Alternation by Line (PAL). The 625 line, 50 field, color television standard of western Europe (excluding France), Africa, Australia, and South America.

3.2.807 Phased training. Training that has been compartmentalized into distinct phases to enhance training. Also see the definition for “phase”.

3.2.808 Phosphors. Individual dots of color that make up a pixel (picture element).

3.2.809 Photodiode. A device used to translate variations in light into the electronic signals that comprise CD data.

3.2.810 Physical data model. A representation of the technologically independent requirements in a physical environment of hardware, software, and network configurations representing them in the constraints of an existing physical environment. Also see the definition for “logical data model”.

3.2.811 Physical fidelity. The degree of structural or dynamic correspondence of a training device to the operational system/equipment it represents.

3.2.812 Physical Picture Element (PIXEL). A single point of illumination on a display device. One of the thousands of points of light and color that make up a screen. The minimum raster display element, represented as a point with a specified color and intensity level.

3.2.813 Physical skills. Skills that require physical movement related activities. Also see the definition for "mental skills". Also called "psychomotor skills".

3.2.814 Pilot Instructor Training (PIT). A formal course for student pilots.

3.2.815 Pipeline. The total time involved in training personnel once they are designated as students. This includes time traveling to the training activity, time awaiting instruction, time

of actual training, time from termination of training until reporting to the ultimate duty station; may include more than one training activity.

3.2.816 Pit. The microscopic physical indentation or hole found in the information layer of a videodisc. Pits on reflective optical disks modulate the reflected beam. Pits in transmissive disks block the beam or allow it to pass through the disk. Pits on Very High Density (VHD) disks cause a detectable change in electrical capacitance. In all cases, variations in the pits carry the information.

3.2.817 Plan of instruction. A qualitative course control document designed for use primarily within a school for course planning, organization, and operation. Generally, for every block of instruction within a course there is a listing of criterion objectives, duration of instruction, and support materials/guidance factors. Also called “syllabus”. Also see the definition for "program of instruction".

3.2.818 Plotter. A graphic hardcopy output device that can use any number of technologies to plot (graph) an image. An output device that prints graphs, bar charts, drawings, or other data, on paper with high resolution. (e.g., pen plotters, electrostatic plotters, photo plotters, ink-jet plotters, and laser plotters).

3.2.819 Plot time. The time between command initiation and draw completion (presentation).

3.2.820 Polygon. A closed plane figure bounded by three or more line segments.

3.2.821 Population. A well-defined group of subjects, things, or characteristics from which measurements are taken (for example, all students 6 feet or taller). Also see the definition for “student target population”.

3.2.822 Port. The electronic door through which information is transferred between sections of a computer and between separate computers.

3.2.823 Portability. The capability to run courseware and associated application programs without modification on an instructional delivery system other than the system for which they were originally designed. Also see the definition for "computer based courseware portability". Also called "transportability".

3.2.824 Portable Electronic Display Device (PEDD). A PEDD is a small electronic device that has been designed and engineered to facilitate the presentation of an Interactive Electronic Technical Manual (IETM) to a technician during maintenance procedures.

3.2.825 Positive reinforcement. Reward intended to increase the likelihood of repeated performance of a desirable behavior.

3.2.826 Post-production. The stage in the preparation of an audiovisual program, after the original footage has been shot. The editing and assembling process of combining new video, resource video, character-generated text, video still frames, and special effects into frames of composed video. May include editing, encoding, computer programming, and other functions.

3.2.827 Practical exercise. A technique used during a training session that permits students to acquire and practice the knowledge, skills, and attitudes necessary to successfully perform one or more training objectives.

3.2.828 Practical exercise sheet. A description of the exercise, the actions to be performed by the student, the conditions under which they will perform, and how performance will be measured.

3.2.829 Practice. Repeated and systematic performance to gain proficiency using the psychomotor, cognitive, and affective skills, acquired in the training phase. Initial practice occurs while the student is acquiring skills; proficiency practice occurs at intervals after training so that the skills may be refreshed. Practice enables the student to perform the job proficiently.

3.2.830 Practice effect. The influence of previous experience in taking a test for the second time or more. Familiarity with directions, types of items, and questions when taking a test again usually helps the examinee to score higher. Practice effect is greatest when the time interval between the test and retest is short and when the same form is administered.

3.2.831 Prebrief/debrief. Conducted prior to/immediately following a training mission to discuss all aspects of the mission. Includes discussion of individual items and the mission as a whole.

3.2.832 Predictive validity. The extent to which the test or expert opinion predicts how well students will actually perform on the job.

3.2.833 Premaster. The fully coded media used in the mastering process to make a copy through direct transfer of its information onto the master disk.

3.2.834 Premastering. The process of assembling, evaluating, revising, and coding intermediate audiovisual materials onto a premaster.

3.2.835 Premaster materials. All training material needed to start and complete production to include adjunctive materials, final script-storyboard, and flowchart to be used for production of stock footage.

3.2.836 Preproduction. All tasks that are part of the production schedule leading up to the actual shooting of material on video or film.

3.2.837 Prerequisite. A requirement the trainee must possess before being able to attend a training course or lesson. Also called “entry skills” and “training prerequisite”.

3.2.838 Prerequisite skills and knowledge. The physical and mental capability an individual must possess before entering an activity (e.g., training, task, job, etc.).

3.2.839 Prerequisite training. The training that personnel must have successfully completed to be qualified for entry into training for which they are now being considered.

3.2.840 Presentation media. Media (e.g., printed materials, audio-visual devices, hardware simulators, or stimulators) used to convey or communicate information to individuals engaged in learning.

3.2.841 Preventative maintenance. The actions performed in an attempt to keep an item in a specific operable condition by providing systematic inspection, detection, and prevention of failure.

3.2.842 Preview monitor. A monitor that shows the director the picture intended to be used as the next shot.

3.2.843 Primary menu. The menu initially presented to the viewer. This menu has no menu levels above it.

3.2.844 Prime time for training. An established period of time (e.g., hours, days, or weeks) devoted entirely to mission-related training.

3.2.845 Primitive. Basic display element, point segment, segment, alphanumeric character, or marker.

3.2.846 Printer's dummy. A page-by-page prototype of a publication showing margins, areas of type, illustrations, readings and captions, and suggested colors.

3.2.847 Probability of deficient performance. Tasks selection criterion that ensures training is given in those essential job skills in which job incumbents frequently perform poorly.

3.2.848 Procedural analysis. A method for analyzing tasks that lend themselves to flowcharting.

3.2.849 Procedural task. A task for which a set of procedures has been published to produce the desired results. The procedures may be either a single fixed array (linear) or a set of alternatives on the contingencies encountered (branching).

3.2.850 Procedures trainer. A non-dynamic system that allows procedural training to be accomplished. It could take the form of a mock-up or a weapon system procedures trainer.

3.2.851 Process evaluation. An early stage in Instructional Systems Development/ Systems Approach to Training (ISD/SAT) that identifies the steps in the process that will be used for the course under development. The purpose of the process evaluation is to describe and document the actual developmental process for this particular instruction.

3.2.852 Processing time. The amount of time it takes a computer's central processing unit to operate on a specified number of instructions (units of computer code).

3.2.853 Process standard. A standard for a task which consists of a series of steps resulting in individual obtaining a single result. The task is evaluated by observing the process and by scoring each step or element as it is performed in terms, of sequence, completeness, accuracy, or speed.

3.2.854 Production approval number. Alphanumeric number assigned to designate approval for the creation of a production.

3.2.855 Production assignment number. Alphanumeric number assigned to identify a course of instruction.

3.2.856 Production Identification Number (PIN). Alphanumeric number assigned to identify a course of instruction.

3.2.857 Production list. Identical to the definition for "shot list".

3.2.858 Production schedule. A report describing each required video frame or sequence in an efficient shooting order.

3.2.859 Production task. A task that terminates in a discrete product or outcome that is observable and measurable. The task is evaluated by looking at the product or outcome in terms of completeness, accuracy, tolerance, clarity, error, or quantity.

3.2.860 Product standard. A standard for a task which terminates in a product or outcome which is observable and measurable. The task is evaluated by looking at the product or outcome in terms of completeness, accuracy, tolerance, clarity, error, or quantity.

3.2.861 Professional development course. A course designed to prepare commissioned officers, warrant officers, or noncommissioned officers to effectively perform the duties required in assignments of progressively greater responsibility.

3.2.862 Professional Military Education (PME) training. The systematic acquisition of theoretical and applied knowledge and the development of command and staff skills that are of particular significance to the profession of arms.

3.2.863 Proficiency. Ability to perform a specific behavior (e.g., task, learning objective) to the established performance standard in order to demonstrate mastery of the behavior.

3.2.864 Proficiency codes. A series of letters and numbers that will indicate the level of proficiency a student is expected to reach upon mastery of a given learning objective.

3.2.865 Proficiency training. Training conducted to improve or maintain the capability of individuals and teams to perform in a specified manner. Training to develop and maintain a given level of skill in the individual or team performance of a particular task.

3.2.866 Profile item-to-topic learning objectives assignment chart. An administrative tool designed to reflect the coverage of Personnel Performance Profile (PPP) line items within a curriculum.

3.2.867 Program Evaluation Review Technique (PERT). A visual representation of the tasks of a project; shows the relationship between the tasks and defines the critical path. A planning technique that arranges events and their duration into a flow graph to examine the entire program and to aid in decision making (e.g., determine sequencing priorities, total time for plan completion, preparation (lead) time for specific events, and other determinations).

3.2.868 Program-linked functions. Computer program features such as back-up, suspend, and marginal notes that, once chosen by the designer, may be active throughout an Interactive Courseware (ICW) program.

3.2.869 Programmable Read-Only Memory (PROM). Write once read-only memory on a chip that allows a program to reside in a piece of hardware.

3.2.870 Programmed Instruction (PI). A student centered method of instruction that presents the information in planned steps or increments, with an appropriate response immediately following each step. The student is guided step-by-step to the successful completion of the assigned task or training exercise.

3.2.871 Programmed Instructional Package (PIP). All the components of a specific unit of programmed instruction, including the programmed instructional materials, learning aids, instructor guide or manual, pretests and post tests, validation data, description of intended student target population, and objectives.

3.2.872 Programmed Logic for Automated Teaching Operations (PLATO). A computer-based training system that uses the Tutor language.

3.2.873 Programmed text. A publication prepared in one or more of the programmed instruction formats, and which applies the concepts of programmed instruction.

3.2.874 Programming script. A detailed plan of the computer program information for each frame of Interactive Courseware (ICW). Also see the definition for “script”.

3.2.875 Programming system in Logic Language (PROLOG). A specialized language developed for artificial intelligence applications and for decision making processes.

3.2.876 Program of instruction. A formal course record that identifies and describes the course content, course material, type of instruction, the major learning objectives, student information, and resources required to conduct training in an institutional setting. Also called “syllabus”. Also see the definition for "plan of instruction".

3.2.877 Program validation. One aspect of post-production where the premaster tape is reviewed to attest to the correctness of content.

3.2.878 Progressive training. Training which is sequenced to require increased levels of performance proficiency.

3.2.879 Projected Operational Environment (POE). The environment in which a piece of equipment, system, organization, or personnel is expected to operate.

3.2.880 Project management plan. The training development project management plan is the plan for developing training for a single, resourced, training development requirement, such as development or revision of resident and nonresident courses, analyses, doctrine literature, and strategies/plans is based on a valid training development requirement identified during needs analysis or training design strategy development; details the personnel, milestones, costs, material, temporary duty and all other factors required to develop the training.

3.2.881 Prompt. A word, symbol, character, or other signal that initiates or guides behavior; a cue.

3.2.882 Prompted authoring aids. Computer program prompts which step an author through the process of creating a unit of instruction.

3.2.883 Prompted simulation. Student performance of a simulated procedure under controlled circumstances. The student is prompted, guided through the procedure, provided necessary remediation, given explanations, and help is provided. It usually consists of video or graphic still frames.

3.2.884 Proof disk. A check disk produced from an optical glass master.

3.2.885 Proof support. A type of instructional material used during the body of a lesson that provides hard data or expert testimony in support of an assertion. Also see the definition for "support instructional material".

3.2.886 Prop. A theatrical property (e.g., furniture, displays, backdrops, and other objects) used for set decorations and by actors or performers.

3.2.887 Proponent agency. An organization or staff that has been assigned primary responsibility for materiel or subject matter experts in its area of interest.

3.2.888 Proponent school. The school designated as a training proponent to exercise supervisory management of all combat/training development aspects of a materiel system, functional area, or task.

3.2.889 Protocol. A set of rules or conventions governing the communication between devices or software modules.

3.2.890 Prototype section. A first sample section of courseware developed as a model.

3.2.891 Psychomotor domain. A major area of learning that deals with acquiring physical skills requiring dexterity, coordination, and muscular activity. Also see the definition for "psychomotor skills".

3.2.892 Psychomotor skills. Identical to the definition for “physical skills”. Also see the definitions for “mental skills” and "psychomotor domain".

3.2.893 Public domain. The status of publications, products, and processes not protected under copyright or patent.

3.2.894 Pull-down/pull-down menu. Generally referring to menus that are accessed by highlighting a keyword, often by use of a mouse, which then "unfolds" to provide additional menu options associated with that keyword.

3.2.895 Pulse code or pulse. A signal that, when recorded on every frame of a videotape, facilitates editing and access by making individual frames easier to identify.

3.2.896 Qualitative and Quantitative Personnel Requirement Information (QQPRI). A document that provides information concerning numbers and qualifications of personnel involved in the use, maintenance, and transport of equipment or systems. Where appropriate, it also describes the personnel duties, Military Occupational Skill (MOS)/skill levels, specialty code, and organization.

3.2.897 Quality Assurance (QA). Actions taken by the contractor and/or Government to ensure that supplies and services meet the stated requirements.

3.2.898 Quality Assurance Evaluator (QAR). A Government person responsible for surveillance of contractor performance.

3.2.899 Quality Assurance Surveillance Plan (QASP). An organized written document used for quality assurance surveillance. The document contains specific methods to perform surveillance of the contractor.

3.2.900 Quality Control (QC). A process of measurement and evaluation used in order to maintain standards.

3.2.901 Quiz. A short test administered by the instructor to measure achievement on material recently taught or on any small, newly completed unit of work.

3.2.902 Quota. The number or amount constituting a proportional share; an allotment.

3.2.903 Random access. The ability to access memory circuits directly without going through a fixed sequence.

3.2.904 Random Access Memory (RAM). Addressable memory directly controlled by the central processing unit of a computer.

3.2.905 Random Access Memory (RAM) disk. Use of a computer's RAM to simulate a disk drive to allow for quick access of data at a rate faster than access of a magnetic disk.

3.2.906 Random sample. A sample selected in such a way as to guarantee equal probability that any portion of the group may be selected.

3.2.907 Random selection. A process for selecting people or objects with no specific pattern, purpose, or objective so that all available elements have the same chance of selection.

3.2.908 Rank order. The relative standing of an individual on a given trait with reference to other members of the group.

3.2.909 Raster. The closely spaced parallel lines produced on a display device. An image is formed by modulating the intensity of the individual pixels. A binary representation, a raster form, of the pixels can be used to digitally represent an image.

3.2.910 Rating scale. A measurement device in which an evaluator must choose a response from choices arranged in a continuum such as from low to high or good to bad.

3.2.911 Raw score. A score obtained on a test as determined by the performance itself, to which no correction or modification of any kind has been applied other than the possible addition or subtraction of a constant score.

3.2.912 Raw video. Video that has not yet been edited.

3.2.913 Reading Grade Level (RGL). A number representing a person's ability to read and comprehend what they are reading, equating to a given level of schooling in which a student should be capable of reading and comprehending the written matter (i.e., a RGL of 7 is representative of an individual being able to read and comprehend 7th grade subject matter). A number representing the school grade level assigned to the complexity of reading materials. Formulas used to calculate reading grade level are usually based on length of words and sentences.

3.2.914 Read Only Memory (ROM). A type of internal computer memory in which data can be read but cannot be altered.

3.2.915 Ready For Training (RFT) date. The date that equipment, training materials, or other support are required to be in the field to support training requirements.

3.2.916 Ready For Use (RFU). When a new acquisition is available for use either operationally or in a support function.

3.2.917 Real estate. In video technology, the space available on a videodisc or tape.

3.2.918 Realism. The extent to which an operator's experience in a training device corresponds to experiences as they would actually occur in/on the operational system/equipment under a given set of conditions.

3.2.919 Real time. The normal clocktime at which events occurs.

3.2.920 Rear screen. Translucent screen onto which images are projected from the rear and photographed or viewed from the front.

3.2.921 Reclassification training. Training provided to individuals that will qualify them to perform in a newly assigned job.

3.2.922 Record. A unit of logical storage or set of data forming the basic elements of a file.

3.2.923 Recycling. The process by which students are afforded additional opportunities to complete a training course (or cycle) either through repetition of training previously not completed satisfactorily or make-up of extensive training that was missed because of medical or other absences.

3.2.924 Red, Green, Blue (RGB). Stands for the separate input of the three signals corresponding to the primary color "guns" in a color cathode ray tube, or color monitor.

3.2.925 Red-lining. A process used to record recommended change actions prior to Government approval.

3.2.926 Re-enactment. A reconstruction of something that has really happened, possible using the same people and places, but quite likely edited.

3.2.927 Reference-dependent task. A task that requires frequent or continuous use of a reference during task performance.

3.2.928 Reference-independent task. A task that must be performed without the aid of references due to mission or job requirements.

3.2.929 Refresher training. Used to reinforce previous training and/or sustain/regain previously acquired skills and knowledge.

3.2.930 Regenerative design. A lesson style that allows for a different set of questions to be presented for each student or for each time a student enters a lesson.

3.2.931 Register. An internal circuit in a microprocessor used for holding and manipulating data and memory addresses.

3.2.932 Release form. A document used to obtain written permission for use of copyrighted materials or pictures taken of individuals.

3.2.933 Reliability, equipment. The characteristic that a device, equipment, or system will operate effectively for a period of time without a failure or breakdown.

3.2.934 Reliability, test. The extent to which the test/test item gives consistent results each time it is used. Any time a test item is examined for validity, it is also examined for reliability.

3.2.935 Remedial instruction. Special instruction designed and delivered to alleviate deficiencies in the achievement of some of the learning objectives of an instructional program.

3.2.936 Remediation. Corrective training. A form of feedback that re-teaches information for which the student has demonstrated a lack of understanding.

3.2.937 Remediation design criteria. Previously determined paths developed by the designer and influenced by the user's input. The remediation is intended to re-teach information the trainee has failed to understand. It may also be supplemental instruction to correct student non-understanding of course material or a student learning deficiency.

3.2.938 Remote operations. Events conducted away from the normal local area of operations.

3.2.939 Remote terminal. A terminal physically located so that it must communicate with the mainframe computer through a modem.

3.2.940 Remote workstation. A self-contained microcomputer that can compute in a stand-alone operation or input/output information to/from a different computer.

3.2.941 Remotivation step. A segment of a lesson conclusion during which the presenter reminds students why the information presented is important to the student as an individual so that student will have a desire to retain and use what they have learned.

3.2.942 Replacement Training Unit (RTU). Any organization which accepts Undergraduate Flying Training (UFT) graduates and trains them in a major weapons system.

3.2.943 Reproducible copy. Identical to the definition for "camera-ready copy".

3.2.944 Request For Information (RFI). As used in this handbook, a formal invitation for industry to provide comments on a Government pre-proposal package.

3.2.945 Request For Proposal (RFP). A formal invitation for offerors to submit a proposal to satisfy a stated Government need.

3.2.946 Required Operational Capabilities (ROC). Statements prepared by mission and force function sponsors which detail the capabilities required of equipment, systems, organizations, and personnel in various operational situations. The level of detail sets forth which systems will be ready at varying degrees of readiness.

3.2.947 Resident school. A training location other than the individual’s assigned unit where the individual is a full-time student.

3.2.948 Resident training course. A formal course presented by trained instructors, conducted at a training location where the student is a full time student.

3.2.949 Resolution. A measure of picture clarity, sharpness, or fineness of detail. It is directly related to the number of visible scanning lines per frame, in video, or the number of pixels (picture elements or discrete element dots) per unit of area, in non-video applications. The higher the number of scanning lines or the pixel density, the higher the resolution.

3.2.950 Resource management. The control (i.e., identification, acquisition, and use) of training development and training resources (e.g., equipment, facilities, funds, personnel, and time) to obtain maximum and timely training efficiency.

3.2.951 Resource requirements list. An overall list that identifies the equipment, facilities, funds, personnel, time, texts, references, films, graphics, and other instructional media materials required to support the curriculum.

3.2.952 Resources. The equipment, facilities, funds, personnel, time, texts, references, films, graphics, and other instructional media materials required to support the training program. Also called “training resources”.

3.2.953 Responding. A level of affective domain in which students act or comply by performing an act.

3.2.954 Response. Any activity which is induced by a stimulus. In instruction, it designates a wide variety of behavior which may involve a single word, selection among alternatives (multiple choice), the solution of a complex problem, the manipulation of buttons or keys, etc.

3.2.955 Response bias. Tendency to favor a certain response over others.

3.2.956 Response-paced. Interactive Courseware (ICW) that prompts the student to comprehension of learning points at the optimum comprehension speed.

3.2.957 Response time. The time between the end of the user input and the start of the output (e.g., seeing data begin to appear on the screen).

3.2.958 Return On Investment (ROI). The savings that accrue, usually over a pre-determined period of time, either through cost avoidance or savings in time, money, personnel, or other resources, by an up-front investment in a training program.

3.2.959 Ring network. A configuration of computers and peripherals serially connected such that any unit can directly communicate with any other unit.

3.2.960 Risk. A hazard, danger, or peril; exposure to loss or injury; the degree of probability or loss.

3.2.961 Risk assessment. The process used to identify potential hazard associated with training, set values on the risk elements, compare risks against training benefits, and eliminate unnecessary risks. It is an expression of potential loss in terms of hazard severity, accident probability, and exposure to hazard.

3.2.962 Risk assessment code. A code, representing the risk assessment output.

3.2.963 Routine. A part of a computer program that does a limited, specific task.

3.2.964 Rule-based system. A system in which knowledge is stored as simple "if-then" or "condition-action" statements.

3.2.965 Safe area. That area in the center of a screen that is sure to be displayed on all receivers and monitors. The outer edge of a screen (about 10 percent of the total picture) is not represented in the same way on all televisions and monitors.

3.2.966 Safety-in-training. The integration of safety requirements and risk management into the training development process. It involves hazard (risk exposure) identification and prevention (risk control techniques) into individual/unit training products.

3.2.967 Sample. A portion or small segment of a student target population (i.e., a sample of students for whom instruction is designed).

3.2.968 Sampling plan. Specified procedures for selecting a small but representative group (i.e., sample) from the student target population.

3.2.969 Saturated colors. Strong, bright colors (particularly reds and oranges) which do not reproduce well on video, but tend to saturate the screen with color or bleed around the edges, producing a grayish, unclear image.

3.2.970 Saturation. The degree of purity in a given color, measured by its freedom from mixture with white.

3.2.971 Scalability. The ability to use the same application software on many different classes of hardware.

3.2.972 Scenario. A logical and realistic presentation of mission objectives and specific mission tasks required by the formal training syllabus in corresponding mission lesson plans.

3.2.973 Schemas. An organization of information. Schemas may take the form of scripts (a kind of story or scenario that organizes information) or frames (a structure that looks like a table or matrix into which information fits).

3.2.974 Script. The detailed plan, including a numbered list of each scene or frame showing description, talent, props, audio, narration, sound effects, camera angle, image size, and all that is necessary to produce an audiovisual program. It is a printed narration with instructions and cues used to develop video presentations for programs or program segments. Also see the definition for "programming script".

3.2.975 Script Storyboard (SSB). A combination storyboard and audiovisual script. It is a detailed description of an individual or series of frames containing important script features of scene description, reference information, text displayed, audio content, camera directions, special effects, program flow, programming function information, production information, post-production information, props needed, graphics needed, and special notes. Also see the definition for "storyboard".

3.2.976 Scrolling. Moving the display up or down on the screen.

3.2.977 Search. In the process of rapidly accessing a specific address, identified by its unique sequential reference number.

3.2.978 Search time. The amount of time required by a computer to locate specific data in a storage medium.

3.2.979 Segment. A basic unit of Interactive Courseware (ICW), with a fixed duration, containing enough information to enable a viewer to absorb, comprehend, and respond.

3.2.980 Segmented training. Modification of existing formal courses into discrete portions.

3.2.981 Selective erase. Refers to the ability to erase part of a screen display without affecting other portions of the same screen display. Also called "mode erase".

3.2.982 Self-diagnostic. A procedure by which a system checks its own operations and identifies error conditions.

3.2.983 Self-paced instruction. Instruction that permits progress at the student's rate of learning. Also called “individual-paced instruction”.

3.2.984 Self-study. Individual study by which a person learns new knowledge or skills or reinforces knowledge or skills already learned.

3.2.985 Self-study workbook/guide. A document containing a series of lessons arranged in discrete steps with self-test questions that allow the instructor to monitor the students' progress. It is used to guide the student through a controlled path of study and specific job tasks with a minimum amount of supervision. An instructional document that provides the student study material in support of objectives. This document contains the objectives, sub-objectives, subject matter content, reference to adjunct reading or study material, review exercises with feedback, and directions to interact with training media including an instructor.

3.2.986 Sensory stimulus. An action, agent, or condition that activates/stimulates a human sense (e.g., hearing, sight, smell, equilibrium, etc.).

3.2.987 Sequence. Two or more frames forming one visual unit (e.g., motion sequence, still-frame sequence).

3.2.988 Sequencing. The order of presentation. Arranging the objectives, teaching point, teaching steps, criterion steps, and activities into the most appropriate sequence for effective learning. Also see the definitions for “sequential training” and “training structure”.

3.2.989 Sequential Color with Memory (SECAM). The color television standard (Sequential Couleur A Memorie (SECAM)) developed by France, and subsequently adopted by the former USSR and its former satellite states, and in some parts of the Middle East and North Africa. It involves sending the three primary color signals sequentially, rather than nearly simultaneously (as the "NTSC" and "PAL" systems do).

3.2.990 Sequential training. The ordering of training so that the learning of new or more complex skills/knowledge is built on and reinforces previously learned material. Also see the definition for “sequencing”

3.2.991 Serial. The sequential transmission of information, unit by unit, on a single channel.

3.2.992 Serial memory. A memory to which access occurs in a set sequence, not randomly.

3.2.993 Service group. A segregated set of commands that relate to a specific functional area. For example, the videodisc service group contains commands for controlling videodisc players.

3.2.994 Servo control. A device that converts a small mechanical force into a larger one; particularly in a control mechanism.

3.2.995 Shaping. The process of gradually changing a student's behavior until it conforms to the desired behavior.

3.2.996 Shared task. A task that may be performed on or by more than one job, skill level, or specialty.

3.2.997 Shielding. Protective covering that eliminates electromagnetic and radio frequency interference.

3.2.998 Shot list. A list that specifies the video segments (e.g., video sequences and still shots) and sound tracks that will be produced, including instructions about the interface with the following shot. Shot lists are organized in a way to save production time. They are usually compiled from the storyboards. Also called "production list".

3.2.999 Shot sequence. A term that identifies the order in which the video will be shot.

3.2.1000 Shot sheet. A list of every shot a particular camera has to take.

3.2.1001 Signal-to-Noise ratio (S/N). The strength of video/audio signal in relation to the interference (noise) it has picked up passing through electrical circuitry. The higher the S/N, the better the quality of the signal.

3.2.1002 Simulated performance. Interaction between the student and the computer whereby the student selects the correct procedure to achieve a stated objective or result in a simulated real-world situation.

3.2.1003 Simulation fidelity. The degree of correspondence of an aspect(s) or element(s) of the model embedded in a trainer to those analogous characteristics of reality.

3.2.1004 Simulations. Any representation or imitation of reality. The representation of the salient features, operation, or environment of a system, subsystem, or scenario.

3.2.1005 Simulation sequence. A video production term that identifies the order in which the video will be presented to the student in the Interactive Multimedia Instruction (IMI).

3.2.1006 Simulation/stimulation. A hybrid process where the training system may stimulate part or all of the system and simulates the remainder of the system and the environment.

3.2.1007 Simulator. A training device that substitutes for, by emulation, the functions and environment of actual equipment or systems. Any training device, machine, or apparatus that reproduces a desired condition or set of conditions synthetically. Specifically for training, a relatively complex item of training equipment, using electronic/mechanical means to reproduce conditions necessary for an individual, or a crew, to practice operational tasks in accordance with training objectives. It represents the operational equipment physically and functionally to varying degrees and follows the mathematical equations that describe performance.

3.2.1008 Simulator software. The computer programs necessary to enable the training device to perform the various functions. Simulator software includes all real-time programs necessary for student operation as a training device, diagnostic or other maintenance or support programs, debug, or software development tools to be used in correction of errors in the present programs or in future modifications. All other programs or material necessary to recreate, copy, maintain, support, and update any of the simulation software as well as any other applicable software or software procedures developed or produced during the period of the contract shall also be included. All computer vendor programs and commercially

marketed programs as well as those programs developed, modified, or otherwise produced or provided by the manufacturer and the documentation are included in the simulator software.

3.2.1009 Skill. The ability to perform an activity that contributes to the effective completion of a task.

3.2.1010 Skill learning type. A classification of change in an individual's ability to perform.

3.2.1011 Skill level. A list of proficiency requirements for performance of a specific job, and the level of proficiency at which an individual qualifies in that occupational specialty/grade.

3.2.1012 Skill retention model. A model which provides a numerical score for an individual task used in predicting retention on that task. Of value for determining sustainment training requirements.

3.2.1013 Skills profiles. Concise listings of skills currently taught in a course.

3.2.1014 Skills transfer. An ability acquired for the performance of a task that may be used in the performance of a different task.

3.2.1015 Slide-tape. A combination of visual slides and an audio tape, synchronized so that the audio describes the content of the slides.

3.2.1016 Small Computer Systems Interface (SCSI). A type of controller system that enables users to connect devices to a computer. (Pronounced "scuzzy".)

3.2.1017 Small Group Instruction (SGI). A means of delivering training which places the responsibility for learning on the student through participation in small groups led by small group leaders who serve as role models throughout the course. SGI uses small group processes, methods, and techniques to stimulate learning.

3.2.1018 Small Group Leader (SGL). An instructor who facilitates role modeling, counseling, coaching, learning, and team building in Small Group Instruction (SGI).

3.2.1019 Small group trial. Tryout of a training course on a representative sample of the student target population to gather data on the effectiveness of instruction in regard to error rates, criterion test performance, and time to complete the course. Also called "trials" or "tryout, small group".

3.2.1020 Society for Motion Picture and Television Engineers (SMPTE) time code. A standard SMPTE method of address-coding a videotape that gives an accurate frame count, retaining all frame numbers in a chronological order, rather than an accurate clock time. Also see the definition for "time code". Also called "full-frame time code" or "nondrop frame time code".

3.2.1021 Soft data. Information obtained from attitude or opinion surveys. This data is not as reliable as hard data. Also see the definition for "hard data".

3.2.1022 Soft skills. Skills needed to perform jobs where job requirements are defined in terms of expected outcomes, but the process(es) to achieve the outcomes may vary widely. Usually, an area of performance that does not have a definite beginning and end (i.e., counseling, supervising, and managing).

3.2.1023 Software. The programs and routines that tell the computer and its peripherals what to do.

3.2.1024 Software interface. The boundary between two or more software modules, or a protocol that defines how two software modules communicate.

3.2.1025 Soldier's Manual of Common Tasks (SMCT). Contains the critical tasks that every soldier must be able to perform. It lists the conditions, standard, and measures for each Army task.

3.2.1026 Soldier's Manuals (SM). The base document for all Army Military Occupational Specialty (MOS)-specific individual task training and evaluation. Soldier's manuals list critical task summaries for an MOS and skill level as well as conditions for performance, standards, performance measures, training evaluation information, and references.

3.2.1027 Soldier Training Publications (STP). Contains critical tasks and other training information used to train soldiers and standardize individual training. Provides information and guidance that aids the instructor in conducting individual training in the unit. STPs include Soldier's Manuals, Trainer's Guides, Military Qualification Standards Manuals, and Officer Foundations Standards System Manuals.

3.2.1028 Solicitation. As used in this handbook, a formal Government request for proposals or information to satisfy a stated need. Also see the definitions for "Request For Proposal (RFP)" and "Request for Information (RFI)".

3.2.1029 Source code. The uncompiled written language for a computer program. The program text for a program.

3.2.1030 Source document. A document listed in the Acquisition Management Systems and Data Requirements Control List (AMSDL) and Department of Defense Index of Specifications and Standards (DoDISS) that is applied in a solicitation or contract and establishes a data requirement which requires a Data Item Description to define the preparation requirements for data content and format.

3.2.1031 Source file. The file created from grouped source code.

3.2.1032 Special effects generator. An electronic image creation device that produces a variety of special effects wipe patterns.

3.2.1033 Special training. Any additional training that is required in order for the particular specialist to perform the maintenance on the system and assemblies concerned. This presumes the indicated specialist is fully qualified in their career field and is experienced on similar systems, assemblies, and support equipment.

3.2.1034 Specialty qualification indicator. An identification of warrant officer or enlisted skill in addition to those of a Military Occupational Specialty (MOS) used to identify the positions and personnel with those special requirements or qualifications. Special qualification indicators are authorized for most MOSs.

3.2.1035 Specification. A document prepared to support acquisition that describes essential technical requirements for materiel and the criteria for determining whether those requirements are met.

3.2.1036 Speech recognition. Identical to the definition for "voice recognition".

3.2.1037 Speech synthesis. Approximation of human speech produced by a computer and provided to the user as an output.

3.2.1038 Speech synthesizer. A device that produces human speech sounds from input in another form.

3.2.1039 Split-screen. The ability of a screen to be halved, quartered, or divided into virtually any shape or proportion with different material displayed on each part.

3.2.1040 Spooler. A buffer between a computer and printer that allows continued computer processing while the printer is operating. It stores an output print file used by the printer.

3.2.1041 Stair-stepping. Jagged raster representation of diagonals or curves; can be corrected by anti-aliasing.

3.2.1042 Stamper. A metal reverse mold disk made from a glass master disk that is used to produce final replicated disks.

3.2.1043 Stand-alone computer. A self-contained computer system consisting of at least a central processor, central memory, display device, and input device. Typically refers to a single-user, self-contained microcomputer system.

3.2.1044 Standard Data Element (SDE). A data element of a basic unit of information having a meaning and subcategories (data items) of distinct units and value. Through its name and definition, a data element conveys a single informational concept. A SDE specifies the characteristics of digital data (e.g., data type, data name, maximum number of characters, etc.). A SDE is a data element that has been formally approved in accordance with DoD’s data element standardization procedures.

3.2.1045 Standard deviation. Identical to the definition for "mean deviation".

3.2.1046 Standard Digital Data (SDD). Information presented in a format that conforms to the data standards contained in the Defense Data Dictionary System (DDDS).

3.2.1047 Standard of performance. A statement that establishes criteria for how well a task or learning objective must be performed. The standard specifies how well, completely or accurately, a process must be performed or product produced. The standard reflects task requirements on the job or learning requirement in the classroom. A product standard is

expressed in terms of accuracy, tolerance, completeness, format, clarity, errors, or quantity. A process standard is expressed in terms of sequence, completeness, accuracy or speed. Both product and process must be observable and measurable. Also see the definitions for "standards statement" and "task standard".

3.2.1048 Standard Software Interface Definition (SSID). An effort by the Interactive Multimedia Association (IMA) to standardize calls for software for videodisc systems. This standardization would render hardware transparent to the courseware. Courseware authors would write it into the header of their courseware.

3.2.1049 Standards statement. A part of a criterion objective that describes the qualitative and quantitative criteria against which student performance or the product of that performance will be measured to determine successful learning. Also see the definitions for "standard of performance" and "task standard".

3.2.1050 Standby course. A course in which a capability for training exists, but student course entries have been temporarily discontinued.

3.2.1051 Statement of Objectives (SOO). A Government prepared document which is incorporated into a proposal request that states the overall solicitation objectives. The offeror is expected to respond with a statement of work.

3.2.1052 Statement of Work (SOW). The SOW states the Government’s needs in terms of work tasks (e.g., work to be performed in developing or producing the goods to be delivered or services to be performed by a contractor).

3.2.1053 Stem. The part of a test item that asks a question.

3.2.1054 Step frame. The facility to move through a video sequence frame-by-frame, forward or backward, either automatically or by using a remote control device. This can be used to examine a sequence of moving footage in close detail, or to employ a set of stills that have been recorded as single static frames.

3.2.1055 Stepped skills. Still frames selected to show a process, such as raising an antenna, at different points of completion.

3.2.1056 Still frame. A video image of any kind that is represented as a single, static image rather than as moving footage. Also called “video still”. Also see the definition for "video sequence".

3.2.1057 Still-frame audio. A method of digitally recording and transmitting several seconds of voice-quality audio per individual disk frame, resulting in a potential for several hours of audio per disk. A buffer is used to store the audio information in order to deliver a limited amount of audio from each digitally encoded still-frame. Also called "audio compression".

3.2.1058 Stimulation. An excitation to activity caused by an event, situation, condition, signal, or cue to which a response must be made.

3.2.1059 Stimulator. A training device designed for inter-connection with operational equipment, that will artificially create conditions that somewhat replicate conditions encountered in the operational environment. Also, insertable or inducible faults for trainers and simulators.

3.2.1060 Stimulus. The event, situation, condition, signal, or cue to which a response must be made.

3.2.1061 Stimulus characteristics. Those basic qualities or capabilities of a medium that are required to carry out the intent of the instructional activity (i.e., visual images, motion, color, and sound).

3.2.1062 Stock footage. Film or video usually available for sale by the producers.

3.2.1063 Storage device. Any device that stores information such as on disk or tape.

3.2.1064 Storyboard. A layout and detailed graphic description of a single frame or series of frames, arranged sequentially. The frames describe the action and content of the Interactive Courseware (ICW) and specifies all details such as graphics, text, visuals, video, audio, and special effects. It is a graphic depiction that shows the ICW presentation. Also see the definition for "Script Storyboard (SSB)".

3.2.1065 Structure. The complete set of relationships between parts of a learning program as displayed in a course map or learning plan.

3.2.1066 Structured language. Any programming language that permits repositioning of information within a program in the order selected, allowing for modular construction.

3.2.1067 Structured question or structured response. A question that can only be answered in a specific way (e.g., yes/no, true/false).

3.2.1068 Student. An individual who has been placed in a learning situation in order to acquire skills, knowledge, and attitudes. Also called “learner” and "trainee".

3.2.1069 Student centered. Instruction that employs all the principles of criterion-referenced instruction to meet the needs of the student.

3.2.1070 Student Centered Instruction (SCI). An instructional process in which the content is determined by the student’s needs, the instructional materials are geared to the student’s abilities, and the instructional design makes the students active participants.

3.2.1071 Student centered instructional objective. A desired outcome of learning described in terms of student knowledge, skill, or attitude; proof of learning may be obtained through direct measurement of limited, precise student behavior (criterion objective) or general evidence of learning may be inferred from measurements of a sampling of student behaviors (level of learning objectives).

3.2.1072 Student control. The student has input to pace/content/depth of training. Also called "learner control".

3.2.1073 Student controlled instruction. An instructional environment in which the student can choose from a variety of instructional options for achievement of the terminal objectives. Students can vary their rate of learning, the media used, and other such learning factors. Also called "learner controlled instruction".

3.2.1074 Student evaluation plan. Details how to determine if the student has demonstrated a sufficient level of competence to pass. It identifies course completion requirements to include minimum standards for each written or performance test, final grade requirement, minimum course attendance requirements (when applicable), and specific tests that must be passed for graduation.

3.2.1075 Student flow. The average input and output of students to a course during a given period of time. Also called “throughput”.

3.2.1076 Student guide. Identical to the definition for “trainee guide”.

3.2.1077 Student handout. A summary of excerpts from supplementary material or presents information in a much clearer and more condensed form.

3.2.1078 Student input. The number of students actually enrolled at the beginning of a course.

3.2.1079 Student instructions. Directions for students on how to achieve the objectives of each lesson.

3.2.1080 Student load. The average number of students enrolled in a course of instruction over a specified time period.

3.2.1081 Student output. The number of students who successfully graduate from a course.

3.2.1082 Student performance counseling. As related to training, communication which informs students about their training and the expected performance standards and provides feedback on actual performance. Student performance includes appearance, conduct, learning accomplishment, and the way learning is being performed.

3.2.1083 Student population baseline data. Information about the current level of performance of the student population that can be used to confirm the need to develop new instruction or to assess differences between student performance before (at baseline) and after instruction. Also called “baseline data”.

3.2.1084 Student prerequisites. The knowledge, skills, background, and attitudes of the people who will be using the instruction. Student characteristics might include age, Intelligence Quotient (IQ), educational background, reading level, prior training in related areas, and other related characteristics. The traits possessed by students that could affect their ability to learn.

3.2.1085 Student target population. The audience for which training presentation is directed, or the audience for which training materials are designed. Also see the definition for “population”.

3.2.1086 Student workbook. A document containing printed exercises for the student to practice required skills and applications of knowledge.

3.2.1087 Study guide. A document that guides the students' study for a lesson or series of lessons. It focuses on the important points and reinforces learning by providing a broad picture and summary of the training.

3.2.1088 Subject Matter Expert (SME). An individual who has a thorough knowledge of a job, duties/tasks, or a particular topic.

3.2.1089 Submenu. A menu under a main menu that allows a user to branch to new information without returning to the main menu.

3.2.1090 Subroutine. A definable portion of a program to be used many times.

3.2.1091 Subsystem. A grouping of functionally related equipment that together perform particular functions contributing to the overall system function.

3.2.1092 Subtask. Activities (e.g., perceptions, decisions, and responses) that fill a portion of the immediate purpose within a task (e.g., remove a lug nut).

3.2.1093 Summative evaluation. Overall assessment of training at the completion of the developmental process.

3.2.1094 Supervised On-the-Job Training (OJT). Structured training accomplished while a person is working in a particular skill level and Military Occupational Specialty (MOS). The training is closely monitored by a supervisor because of equipment, safety, or skill requirements. Training support products such as training extension course lessons, Interactive Multimedia Instruction (IMI), and correspondent subcourses may be integrated into supervised on-the-job training. Also called "Managed On-the-Job Training (OJT)".

3.2.1095 Supplemental training material. Any material that cannot be included in the courseware but is educationally necessary to support the lesson. Also see the definition for "adjunctive materials".

3.2.1096 Support instructional material. A type of instructional material used during the body of a lesson to support an assertion or to develop understanding. Also see the definition for "proof support".

3.2.1097 Supportive learning objective relationship. In instructional systems development, knowledge and skills in one learning objective that have some relationship to those in another learning objective. The learning involved in mastery of one learning objective transfers to the other, making learning involved in the mastery of the other easier.

3.2.1098 Synchronizing pulse. A signal used to coordinate the audio and video portions of program.

3.2.1099 Synchronous transmission. Transmission in which data bits are sent at a fixed rate with the transmitter and receiver synchronized. This form of transmission eliminates the need for start and stop bits.

3.2.1100 System. A grouping of functionally related subsystems operating together to support a major function.

3.2.1101 Systems approach. A process that synthesizes and interrelates the components of a process within a conceptual framework, ensuring continuous, orderly, and effective progress toward a stated goal.

3.2.1102 Systems Approach to Training (SAT). A training development process. It is a disciplined, logical approach to making collective, individual, and self-development training decisions. It determines whether or not training is needed; what is trained; who gets the training; how, how well, and where the training is presented; and the training support/resources required to produce, distribute, implement, and evaluate those products. The SAT involves all five training related phases: analysis, design, development, implementation, and evaluation. Also see the definition for "Instructional Systems Development (ISD)".

3.2.1103 System Training Plan (STRAP). Plan developed to detail all training support required for newly developing weapon and equipment systems. It describes training required (individual and collective) for each Military Occupational Specialty (MOS) associated with the weapon equipment systems.

3.2.1104 Tactics. The employment of units in combat. The ordered arrangement and maneuver of units in relation to each other and/or to the enemy in order to use their full potentialities.

3.2.1105 Tailoring. The process by which individual requirements (sections, paragraphs or sentences) of specifications, standards and related documents are evaluated to determine the extent to which they are most suitable for a specific acquisition, and the modification of these requirements to ensure that each achieves an optimal balance between operational needs and cost.

3.2.1106 Tailoring of requirements. The deletion of requirements (from Data Item Descriptions (DIDs) and specifications) that are not required to meet the needs of a specific contract, or the addition of (for specifications only) requirements that may be needed under certain conditions.

3.2.1107 Talking head. A sequence showing a head and shoulders shot of the presenter talking directly to the camera.

3.2.1108 Target population description. A profile of potential candidates for the target training program. This description realistically describes target population’s entry behavior, current skill and knowledge profile, job history, reading grade level, and other pertinent information.

3.2.1109 Task. A single unit of specific work behavior, with clear beginning and ending points, that is directly observable or otherwise measurable. A task is performed for its own

sake, that is, it is not dependent upon other tasks, although it may fall in a sequence with other tasks in a mission, duty, or job. Also see the definitions for "collective task," "common collective task", and "common task".

3.2.1110 Task attribute. A trait of an activity that is conducive to communication through a defined sensory mode. Examples of attributes include tactile, olfactory, visual, aural, color, motion, and interactivity.

3.2.1111 Task-based training. Training developed and implemented to train units and individuals to perform critical tasks and supporting skills and knowledge to established performance standards. Critical tasks focus training on what really needs to be trained.

3.2.1112 Task delay tolerance. An individual critical task selection factor. A measure of how much delay can be tolerated between the time the need for task performance becomes evident and the time actual performance must begin.

3.2.1113 Task description. Textual information presented in column, outline, decision table, or timeline format that describes the required job behavior at the highest level of generality. Intended to provide an overview of the total performance.

3.2.1114 Task description worksheet. A tool used to document specific task factors including training factors, stimuli, subtasks, steps and activities, standards of performance, and job aids.

3.2.1115 Task fidelity. The degree of correspondence of cues and responses accompanying task performance on a training device to those characteristics of analogous performance on the operational system/equipment.

3.2.1116 Task inventory. Identical to the definition for "Job Task Inventory (JTI)". Also called “total task inventory”.

3.2.1117 Task learning difficulty. Refers to time and effort required by a student, as well as assistance required for the student, to achieve performance proficiency.

3.2.1118 Task limits. The cues in a job situation that mark the beginning and ending points of the task (known as limits or boundaries).

3.2.1119 Task-linked functions. Functions that must be entered in relation to the procedure to which they are linked. They require either two records to bracket the procedure such as time performance and turning off a program-linked function for a particular segment or only one record such as a branch to a particular lesson, depending on an earlier user input.

3.2.1120 Task performance steps. The required unit/individual actions that must be performed to accomplish the critical task. Each step must be specific and detailed and contain only one action or unit of work.

3.2.1121 Task selection board. A group of subject matter experts who evaluate task performance data. The board makes recommendations to the approving authority those individual tasks which they determine to be critical.

3.2.1122 Task selection factors. A statistical factor collected by survey on all tasks listed in the individual total task inventory. These factors are applied by using a task selection model to identify which individual tasks are critical to job performance.

3.2.1123 Task selection model. A model used to apply statistically valid task selection models to identify critical individual tasks. There are a variety of models available for use. Some examples of task selection models are as follows:

a. Difficulty-importance-frequency model. An individual critical task selection model that uses difficulty, importance, and frequency factors.
b. Eight-factor model. An individual critical task selection model that uses percent performing, percent time spent performing, consequence of inadequate performance, task delay tolerance, frequency of performance, task learning difficulty, probability of deficient performance, and immediacy of performance.
c. Four-factor model. An individual critical task selection model that uses percent performance, and task learning difficulty.
d. Probability of task criticality model. An individual critical task selection model used by the Occupational Data, Analysis, Requirements and Structure Program (ODARS).
e. Training Emphasis (TE) model. An individual critical task selection model that uses the training emphasis factor to determine if a task is critical or not. The TE factor is collected from supervisors of job holders. It reflects how much emphasis the task should be given in training for a specific task.

3.2.1124 Task standard. A statement of how well a task must be performed. Task standards establish the criteria for how well the task must be performed. The standard must describe the minimal acceptable level of task performance. Also see the definitions for "standard of performance" and "standards statement.

3.2.1125 Task statement. A written description of task performance that contains an action verb, an object, and the conditions under which the task is performed and the standard that the performance must meet.

3.2.1126 Task summary. A listing of the conditions, standards, performance steps, and performance measures, references, and proponent for each individual critical task. Information is extracted from the individual critical task analysis. The following are different types of task summaries:

a. Reference-dependent task summary. A summary written for those tasks which require the trained individual to refer to one or more publications while performing all or part of a task in wartime conditions.
b. Reference-independent task summary. A summary written for those tasks that require the trained individual to perform the task in wartime conditions from memory, without reference to any publications.

3.2.1127 Taxonomy. A system for categorizing things in a hierarchical order.

3.2.1128 Taxonomy of educational objectives. A systematic classification scheme for sorting learning outcomes into three broad categories (e.g., cognitive, affective, and

psychomotor) and rank ordering these outcomes in a developmental hierarchy from least complex to most complex.

3.2.1129 Teaching point. The smallest increment of information to which a student may be expected to respond; a statement of fact or a procedural step in the performance of a task; the precise information the student needs to know or to which they should respond.

3.2.1130 Team scheduling. The ability to form teams of students (two or more) at any time in the learning sequence when the required number of individuals are ready to perform a team task.

3.2.1131 Team task. Those tasks that require two or more individuals performing separate functions simultaneously.

3.2.1132 Team teaching. The coordinated efforts of two or more instructors working together in an instructional situation.

3.2.1133 Team trainer. A training device that takes personnel trained and qualified in their individual skill specialties and trains them together to perform as a team (e.g., aircraft weapon system trainer, artillery unit, and satellite crew).

3.2.1134 Team training. The instruction of a group of personnel interacting with each other on the same courseware to teach performance of related or integrated functions as a team. Also see the definitions for "collective training" and "concurrent training".

3.2.1135 Technical data. Recorded information, regardless of form or characteristics, of a scientific or technical nature. It may, for example, document research, experimental, developmental, or engineering work. It may be used to define a design or process or to acquire, support, maintain or operate material. The data may be graphic or pictorial delineation in media such as drawings or photographs, text in specifications, related performance or design type documents, or computer printouts. For purposes of this document, examples of technical data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, technical reports, catalog item identifications and related information, documentation related to computer software, and computer-generated databases. Technical data does not include computer software or financial, administrative, cost and pricing, and management data, or other information incidental to contract administration.

3.2.1136 Technical evaluation of premaster videotape. A standard evaluation of the premaster videotape to ensure it meets the minimum stated specifications required to produce an effective videodisc.

3.2.1137 Technical Manuals (TMs). Publications that contain instructions for the installation, operation, maintenance, training, and support of a weapon system, weapon system component, or support equipment. Information may be presented in any form or characteristic, including but not limited to hard printed copy, audio and visual displays, magnetic tape, disks, and other electronic devices. TMs normally include operational and maintenance instructions, parts lists or parts breakdown, and related technical information or procedures excluding administrative procedures. Technical Orders (TOs) that meet the

criteria of this definition may also be classified as TMs. Also see the definitions for "electronic publications" and "Technical Order (TO)".

3.2.1138 Technical Order (TO). May be classified as "technical manuals" when it is determined that they meet the criteria of the definition for technical manuals. Also see the definition for "Technical Manuals (TMs)".

3.2.1139 Technical training. Training in specific skills and knowledge essential to performance of those tasks and duties related to a technical specialty.

3.2.1140 Technique of delivery. Process or manner of delivering instruction that includes one or more methods. For example, group-paced instruction could use conference, discussion, demonstration, and practical exercise. A technique of delivery may involve a whole course, a phase, or a module. Also called “instructional strategy”.

3.2.1141 Teletraining. Training delivered via communication links such as satellite or cable links.

3.2.1142 Template. A reusable, electronic form, previously developed for specific applications.

3.2.1143 Terminal behavior. The output performance for a system; graduate performance (e.g., criterion behavior, baseline behavior, whole task behavior, summative behavior).

3.2.1144 Terminal Learning Objective (TLO). A learning objective at the highest level of learning (KSA) appropriate to the human performance requirements a student will accomplish when successfully completing instruction.

3.2.1145 Test compromise. Unauthorized disclosure of a test or of test items, with the likelihood that prospective examinees will benefit from the disclosure, thereby distorting the results of the test.

3.2.1146 Test fidelity. The degree to which the test resembles the actual task performed. The closer the resemblance, the higher the fidelity of the test.

3.2.1147 Testing constraints. Limitations such as time, money, personnel, facilities, and other resources that prohibit tests from being reliable measures of the items (i.e., job tasks) they measure.

3.2.1148 Test, instructional. Any device/technique used to measure the performance, skill level and knowledge of an individual. See appropriate types listed below:

a. Achievement test. A test for measuring an individual's attainment of knowledge/skills as the result of specific teaching or training.
b. Aptitude test. A test or battery of tests designed to show a person's capacity for a particular type of behavior in a single field or in several related fields.
c. Comparative test. A test given at the completion of a major section of a course and, as required, at completion of a course to measure whether the student has mastered the course learning objectives.

d. Criterion-referenced test. A test that establishes whether or not a unit or individual performs the learning objective to the established standard. Performance is measured as a "go" or "no-go" against a prescribed criterion or set of criteria - the learning objective standard. It is scored based upon absolute standards, such as job competency, rather than upon relative standards, such as class standings.
e. Diagnostic test. A test used to measure performance against a criterion and to identify specific areas of weakness or strength in individual knowledge and skills.
f. End-of-course comprehensive test. An end-of-course test, administered to all initial entry students prior to graduation, designed to ensure a high probability that students can perform all critical tasks taught in the course. It provides feedback on the need for both reinforcement training and course revisions.
g. Entry skills test. A test designed to determine if a student already possesses certain knowledge or skills needed as a prerequisite before undertaking new instruction.
h. Field test. Tryout of any training course on a representative sample of the student target population to gather data on the effectiveness of instruction in regard to error rates, criterion test performance, and time to complete the course.
i. Heuristic test. Heuristic or discovery tests will present problem-solving simulations that emulate the on-the-job environment. These tests present the student with stimulus information that is inadequate, incomplete, ambiguous, or irrelevant to the simulated environment. The student will be required to synthesize knowledge and apply training received in order to solve the job performance simulation.
j. Job performance test. A test used to determine whether an individual can perform a job. It may include all job performance measures for a job or a subset of the job performance measures.
k. Knowledge test. A test that measures the achievement of theory supporting skill through the use of test items written at the appropriate knowledge and training levels.
l. Multiple-choice test. A type of selection test in which the student is asked to choose for each test item the answer(s) that is most correct.
m. Non-language test. Identical to the definition for "nonverbal test".
n. Nonverbal test. A test that requires little or no speaking, reading, or understanding of language on the part of the examinee either in connection with comprehending directions or making responses. Directions may be given pictorially or in pantomime. Also called "non-language test".
o. Norm-referenced test. A test that ranks a student in relation to the performance of other students in contrast to criterion-referenced testing wherein a student is measured against a prescribed performance standard.
p. Objective test. A test whose scoring requires no human judgment.
q. Performance test. An evaluation of the actual performance of the task or learning objective using the conditions under which it will be performed and the absolute standards for acceptable performance.
r. Post-test. A test administered to a student upon completion of a course or unit of instruction to measure learning achieved and to assess whether a student has mastered the objectives of the course or unit of instruction.
s. Power test. A test in which items are usually arranged in order of increasing difficulty and in which examinees are given all the time they need to complete as many items as they possibly can.
t. Pretest. A test administered to a student prior to entry into a course or unit of instruction to determine the technical skills (entering behaviors) the student already

possesses in a given subject. Often used to identify portions of the instruction the student can bypass.

u. Proficiency test. A test designed to measure a student's capabilities in terms of the job. It measures both psychomotor and cognitive skills. A performance test is sometimes understood to mean a skill demonstration, while a proficiency test is understood to be a comprehensive procedure used to examine the student's capability to do what the job requires.

v. Progress test. A short test administered throughout a course to evaluate student progress. It is administered at strategic points in a course to determine the degree to which students are accomplishing the learning or enabling objectives. Also called “within-course test”.

w. Qualifying test. A test administered to determine whether a student is qualified for a task that the student has been selected or trained for, or for which the student is being considered. A qualifying test may also be applied to tests used for selecting personnel for training, although the usage is not so common.

x. Simple gaming test. Presents the student with fill-in-the-blank, multiple choice, matching, completion, and true/false test items formatted and presented in a gaming style.

y. Simulated part-task performance test. Measures critical sub-sets of job task performance. Simulated part-task performance tests should meet the same construction criteria as simulated performance tests.

z. Simulated performance test. A performance-based two dimensional simulation of the job performance required. A synthetic performance test.

aa. Simulation performance test. A test that measures the student's ability to meet training objectives by performing whole tasks or parts of tasks using simulators or simulations.

ab. Speed test. A test in which the time limit is set so that almost no one can finish all the items or tasks making up the test.

ac. Survey test. A criterion-referenced test used prior to the development of an instructional system. It is administered to a sample of prospective students to determine what knowledge and skills should be put into the course of instruction. Also called "Threshold Knowledge Test (TKT)".

ad. Threshold Knowledge Test (TKT). Identical to the definition for "survey test".

ae. True-false test. A type of selection or alternate-response test in which the student indicates whether each of a number of statements is true or false.

af. Verbal test. Any test involving language. In general usage, the term is restricted to those tests in which the questions and responses are mainly expressed in language or which use language to a substantial degree.

ag. Within-course test. Identical to the definition for “progress test”.

ah. Written test. A test in which an individual demonstrates their capabilities by responding to written test items. It is not usually a performance test, and hence is usually a measure of supporting knowledge rather than skills.

3.2.1149 Test item. A query or procedure intended to ascertain the truth or actual state of an individual’s knowledge, skill, ability, or attitude.

3.2.1150 Test item analysis. The process of evaluating single test items by any of several methods. This usually involves the determination of how well an individual item separates examinees, its relative difficulty value, and its correlation with some criterion of measurement.

3.2.1151 Test item identifier. A combination of one or more numbers, letters, or special characters that designate a specific test item but that have no readily definable meaning.

3.2.1152 Test reliability. The degree to which a test/test item gives consistent results each time it is used.

3.2.1153 Test security. The process of ensuring that tests are not compromised.

3.2.1154 Test validity. The degree to which a test measures what it was designed to measure.

3.2.1155 Text. Alphanumeric characters represented as words, sentences, and paragraphs.

3.2.1156 Text overlay. Computer generated text placed over a video image.

3.2.1157 Time code. A frame-by-frame address code time reference recorded on the spare track of a videotape or inserted in the vertical blanking interval. Also see the definition for " Society for Motion Picture and Television Engineers (SMPTE) time code".

3.2.1158 Time code generator. A signal generator designed to generate and transmit Society for Motion Picture and Television Engineers (SMPTE) time code.

3.2.1159 Time code reader. A counter that reads and displays Society for Motion Picture and Television Engineers (SMPTE) time code.

3.2.1160 Time Related Instructional Management (TRIM). A computer system used by the Air Force to handle all student records.

3.2.1161 Topic. The basic organizational unit of instruction covering one or more closely related learning objectives.

3.2.1162 Topical outline. An outline of the topics to be included in the instructor guide. It provides course learning objectives, a listing of part, section, and topic titles and statements of rationale to explain or justify the training. It is used by the curriculum designer to develop the instructor guides.

3.2.1163 Total task inventory. Identical to the definition for "Job Task Inventory (JTI)". Also called “task inventory”.

3.2.1164 Track. A designed, sequential, and progressive training path for a course. A single course may have multiple tracks (e.g., tracks for different equipment).

3.2.1165 Trainee. Identical to the definition for “student”. Also called “learner”.

3.2.1166 Trainee Guide (TG). A publication that provides each student with the data necessary for the successful completion of a course of study. The materials may be in the form of information, diagram, job, assignment, problem, and outline sheets. Also called “student guide”.

3.2.1167 Trainer. Identical to the definition for “instructor”.

3.2.1168 Training. Instruction and applied exercises for the attainment and retention of knowledge, skills, and attitudes.

3.2.1169 Training aid. An item developed, procured, or fabricated for the purpose of assisting in the conduct of training and the process of learning, such as models, mockups, Interactive Multimedia Instruction (IMI), audiovisual aids, displays, slides, books, pictures, and magnetic/optical recordings.

3.2.1170 Training Aids, Devices, Simulators, and Simulations (TADSS). A general term that includes Combat Training Center (CTC) and training range instrumentation; Tactical Engagement System (TES); battle simulations; targetry; training-unique ammunition; and dummy, drill, inert munitions, casualty assessment systems, graphic training aids, and other training support devices.

3.2.1171 Training Analysis Data Sheet (TADS). A document that defines a task (unit of work) hierarchically in terms of subject, task, subtask, element, and sub-element. The level of indenture is developed to the level required by the using Service or agency. It also includes information related to level of activity, occupational skill level, material system with which used, and level of knowledge or skill at which used.

3.2.1172 Training and Evaluation Outlines (T&EO). Part of the Mission Training Plan (MTP) which provides collective task specifications. The outlines are the basis for evaluation.

3.2.1173 Training capabilities analysis. An analysis that provides information about what the training material or training equipment could train.

3.2.1174 Training Circular (TC). TCs are publications (paper or computer-based) which provide a means to distribute unit or individual soldier training information that does not fit standard requirements for other established types of training publications. TCs are part of the Army-wide Doctrinal and Training Literature Program (ADTLP).

3.2.1175 Training concept. A summary describing how the required training is to be accomplished in terms of type of training, presentation environment, presentation techniques, presentation media, pipeline, location, and other considerations.

3.2.1176 Training cost effectiveness. Actual or predicted effectiveness in relation to life cycle cost.

3.2.1177 Training data product. Contains information related to the analysis, design, development, presentation, evaluation, or the life-cycle maintenance of training, regardless of it’s form or physical characteristics. Also called “training development product”.

3.2.1178 Training development plan. A generic name for a master planning document. It functions as a top-level plan covering all resourced requirements (reflected in training development project management plans) and unresourced requirements. It includes all required training products (resident and nonresident courses, training support package, etc.) and all training development processes (mission analysis, job analysis, etc.). It shows what training development workload must be accomplished. It does not have to be a formal plan:

the requirements can be in a database and not formalized in a report. The plan is for internal proponent school use.

3.2.1179 Training development planning. The planning of all aspects of training development including but not limited to funding, staffing, resourcing, and scheduling.

3.2.1180 Training development product. Identical to the definition for “training data product”.

3.2.1181 Training development requirement. The training solution to a performance deficiency determined during needs analysis or training strategy development.

3.2.1182 Training Development (TD) team. The TD team is responsible for the development of all media, courseware, training devices, syllabi, and hands-on events. The team is the office/unit designated with the primary responsibility for training development and maintenance and evaluation for lesson plans, phase manuals, and syllabi. The TD team may consist of a project leader, subject matter experts, Instructional Systems Development/ Systems Approach to Training (ISD/SAT) technicians, education and training officers, and instructional systems specialists.

3.2.1183 Training device. Hardware and software, designed or modified exclusively for training purposes, involving simulation or stimulation in its construction or operation to demonstrate or illustrate a concept or simulate an operational circumstance or environment.

3.2.1184 Training effectiveness. Enhanced student, safety and/or environmental benefits that accrue as the result of investment (expressed in terms of time, money, personnel, or other resources) in a training program including, but not limited to the following: improved quality, increased capability, increased safety, decreased security risk or decreased environmental impact. Training effectiveness is a measurable component of Return on Investment (ROI). Also see the definition for “Return On Investment (ROI)” and “training efficiency”.

3.2.1185 Training Effectiveness Analysis (TEA). A general category of studies for assessing the effectiveness of training strategies, programs, and products.

3.2.1186 Training effectiveness evaluation. The systematic process of measuring the training benefit gained through a course of instruction in terms of operational readiness.

3.2.1187 Training efficiency. Benefits that accrue by investment (expressed in terms of time, money, personnel, or other resources) in a training program including, but not limited to the following: decreased course length/time to train, more training events/interventions per unit of time, decreased travel and per diem costs, lower attrition, decreased capital cost of complex, equipment intensive training programs, and decreased ordnance and consumable cost. Also see the definition for “training effectiveness”.

3.2.1188 Training equipment. Items used in the support of training, such as trainers, operational equipment, and other associated hardware.

3.2.1189 Training evaluation. The collection and analysis of data about all aspects of the training system (including but not limited to student performance, instructor capabilities, on-

the job performance, training development methods and processes, training management activities, and job requirements) to judge, assign, or affix the worth of the training system.

3.2.1190 Training exercise. A practice problem conducted in the field, for example, a simulation of the real situation (operational situation), and conducted in an environment approximating the significant features of the real (operational) environment.

3.2.1191 Training facility. A permanent or semi-permanent military real property or contractor property used for the purposes of conducting training.

3.2.1192 Training feature. An element of the training medium that provides sensory inputs to the student or receives sensory outputs from the learner. The sensory inputs and outputs may be utilized as stimulus and feedback for the purpose of training. Training features correspond to the attributes defined for a given task, learning objective, or student for which the training medium is designed. Examples of training features include motion, level of fidelity, G-forces, visual imagery, cue enhancement, and response rate control.

3.2.1193 Training fidelity. The extent to which cue and response capabilities in training allow for the learning and practice of specific tasks so that what is learned will transfer to performance of the tasks in the operational environment.

3.2.1194 Training Level Assignment (TLA). A tabular listing in a Personnel Performance Profile (PPP) table number sequence that imposes training levels for the PPP items and identifies the environment where training for a particular PPP item will take place.

3.2.1195 Training logistics support requirements. Logistics support necessary to establish a training capability. This includes technical training equipment, training devices, test equipment, special tools, training services, curricula materials, training aids, technical manuals, and facility support requirements.

3.2.1196 Training Material Outline (TMO). A document that defines in detail the training package content in relation to each lesson in the outline. It is the second stage of instruction media material development.

3.2.1197 Training materials. A general term covering plans, control documents, lesson guides, student guides, and other non-hardware training products.

3.2.1198 Training media. Identical to the definition for “media”.

3.2.1199 Training mission. The stated objective and purpose of an activity whose principal role is to provide training.

3.2.1200 Training objective. Identical to the definition for “Learning Objective (LO)”.

3.2.1201 Training Objective Statements (TOS). A group of statements that describe the system, subsystem, equipment, or task/function depths and skill levels to be attained in support of coordinating, directing, or performing operation and maintenance. They define depth and level of training for Personnel Performance Profile (PPP) items.

3.2.1202 Training Path System (TPS). A coordinated system for identifying the training requirements for categories of personnel in a training program. The student must obtain the

knowledge and skills necessary to coordinate, direct, or perform operation and maintenance of a system, subsystem, or equipment or perform task/functions. It is based on the knowledge and skill items set forth in the Personnel Performance Profile (PPP), and upon an orderly categorization of these items.

3.2.1203 Training performance measure. An instrument used to evaluate the proficiency of a job holder on a given task the student performed in training.

3.2.1204 Training pipeline/track. Sequence of training courses required for an occupational group.

3.2.1205 Training plan. A document that includes program information and data concerning the system or equipment program, event, or situation that identified/originated the training requirement, and describes the training required and the training program(s) to satisfy the requirement. Training plans provide a detailed description of the actions, milestones, and resources. They are designed to provide for planning and implementation of training and to ensure that all resources and supporting actions required for establishment and support are considered.

3.2.1206 Training Planning Process Methodology (TRPPM). An integrated approach to early Navy Manpower, Personnel and Training (MP&T) analysis and planning consistent with the requirements of DoD directives, Navy instructions, and acquisition logistics. It also supports the Navy training planning and programming processes.

3.2.1207 Training prerequisite. Identical to the definition for “prerequisite”.

3.2.1208 Training program. An assembly or series of courses or other requirements that have been organized to fulfill a broad overall training objective.

3.2.1209 Training rate. The number of personnel trained in a specific course in a given period of time.

3.2.1210 Training readiness. The quality of being up-to-date (i.e., able to provide training on the latest model, device, version, technique, information, and other essentials) and be able to provide the necessary instruction.

3.2.1211 Training Requirements (TRs). Those skills that are required for satisfying the job performance requirements and not already in the student's incoming repertoire.

3.2.1212 Training requirements analysis. A determination of the requirements to resolve a performance deficiency.

3.2.1213 Training resource requirements. The training staff and student billets, training equipment and devices, test equipment, spare parts, training services, materials (e.g., texts, references, films, graphics, and other instructional media materials), construction for (or modification of) training facilities, technical services, funds, time, necessary to conduct required training and support training.

3.2.1214 Training resources. Identical to the definition for “resources”.

3.2.1215 Training simulator. A generic term that refers to a group of training devices that can range from simple procedures trainers to high fidelity devices, all capable of simulating various aspects of reality.

3.2.1216 Training site. The geographic location(s) at which a course or training is conducted.

3.2.1217 Training site selection. In training analysis and design, the decision regarding where a task should be trained (i.e., resident or institution versus unit or job site).

3.2.1218 Training Situation Analysis (TSA). A document used to verify the effectiveness of a training system to meet existing training needs and to survey training programs and technologies for applicability to new training needs.

3.2.1219 Training specifications. A detailed description for the development of the job task analysis (job analysis), instructional materials, and the conduct of courses designed for preparing personnel to perform assigned tasks within their occupational fields.

3.2.1220 Training staff. The administration staff and instructors required to manage/operate a training activity.

3.2.1221 Training standard. A quantitative or qualitative measure for the determination of a level of competence or readiness. A standardized procedure or exercise.

3.2.1222 Training strategy. The general description of the methods and resources required to implement a training concept. It lays out the who, what, where, when, why, how, and cost of the training. The development of a training strategy includes determining the training site and media selected to train each critical task.

3.2.1223 Training structure. The process of organizing instruction into logical groupings to facilitate learning. The basic segments of formal training are courses, phases, modules, parts, and lessons. Also see the definition for “sequencing”.

3.2.1224 Training support. The resources, such as billets, personnel, funds, facilities, hardware, course materials, and services necessary to conduct training.

3.2.1225 Training support agency. A bureau, command, office, headquarters, or other organization responsible for supporting the training agencies by providing resources and other forms of support within their cognizance.

3.2.1226 Training support material. Those materials used as instructor aids for presenting information in a lecture or discussion and as student aids in an individualized training course or some other self-learning process.

3.2.1227 Training Support Package (TSP). A complete, exportable package integrating training products, materials, and/or information necessary to train one or more critical tasks. The contents will vary depending on the training site and user. A TSP for individual training is a complete, exportable package integrating training products/materials necessary to train one or more critical individual tasks. A TSP for collective training is a package that can be used to train critical collective and supporting critical individual tasks. Also see the definition for “Individual Task Training Package (ITTP)”.

3.2.1228 Training system. Identical to the definition for “instructional system”.

3.2.1229 Training System Utilization Handbook. A document that is designed for user personnel to aid them in operating and achieving full utilization of a specific training system during the presentation of a course(s) of instruction, training exercise(s) or mission(s).

3.2.1230 Training task. A task selected for training. Also see the definition for “critical task”.

3.2.1231 Training task analysis. The process of examining each unique unit of work from the job task analysis to derive descriptive information (e.g., procedural steps, elements, task conditions, standards, and other information) used in the design, development and testing of training products.

3.2.1232 Training transfer. The ability to apply learned behavior (i.e., task, or supporting skills and knowledge performance) to an operational setting under operational conditions.

3.2.1233 Training unique equipment. Commercial Off-The-Shelf (COTS) equipment, modified operational equipment, and equipment specifically designed for a training system as an integral part of the training system. Also see the definitions for "Commercial Off-The-Shelf (COTS)" and "training device".

3.2.1234 Training utilization. The extent to which the capacity of a training activity, school, device, or course is being used.

3.2.1235 Training week. The number of hours in the standard workweek that is devoted to actual instruction of personnel (i.e., the minimum number of hours per week of instruction which any given student must receive).

3.2.1236 Transfer of training (student). Ability of the student to apply old (familiar) concepts to new situations. Transfer of training is most effective when the learning situation is so organized as to facilitate generalization and the recognition of relationships.

3.2.1237 Transient. An abrupt change in voltage that is of short duration.

3.2.1238 Transition. A logical flow from one section of Interactive Courseware (ICW) to another.

3.2.1239 Transition screen. A screen that provides a smooth instructional flow from one section of Interactive Courseware (ICW) to another.

3.2.1240 Transition training. Training provided to personnel who are qualified on one system or equipment to support a replacement system or equipment.

3.2.1241 Transmission. The transfer of a signal, message, or other data from one location to another.

3.2.1242 Transparent. Reduction of the user's perception of the delivery system in the process of interacting with the system. The user's ability to readily understand, uninhibited by lack of mechanical or programming skills.

3.2.1243 Transportability. Identical to the definition for "portability".

3.2.1244 Treatment or treatment plan. A design document that describes in general terms the scope and sequence of the instruction. A description of the subject, the audience, the interactive features, and other salient information (e.g., running time, closed caption requirement, types of audiovisual media, shot requirements, SMPTE time codes, etc.) regarding an Interactive Courseware (ICW) project. An initial outline of an ICW unit of instruction, including an initial flowchart depicting major branching design.

3.2.1245 Trials. Identical to the definition for “small group trials”.

3.2.1246 Triggering circumstance. A cue or indicator that action needs to be taken.

3.2.1247 Tryout, individual. Identical to the definition for “individual tryouts”.

3.2.1248 Tryout, small group. Identical to the definition for “small group trials”.

3.2.1249 Tutorial. An instructional program that presents new information to the student efficiently and provides practice exercises based on that information. A lesson design used to teach an entire concept. Interactive instruction that asks questions based on the information presented, requests student responses, and evaluates student responses. It is self-paced, accommodates a variety of users, and generally involves some questioning, branching, and options for review.

3.2.1250 Two-dimensional simulation. Simulations that are viewed in a horizontal and vertical nature (no physical depth).

3.2.1251 Two-way video. A satellite or terrestrial based teletraining system. The students can see the instructor and the other students, and the instructor can see the students. Also see the definition for “one-way video”.

3.2.1252 Undergraduate Flying Training (UFT). Any formal, syllabus-driven training program that prepares unrated, newly rated, or re-rated students for a follow-on training program, usually at a Replacement Training Unit (RTU).

3.2.1253 Unit. A section of an Interactive Courseware (ICW) lesson that performs a single function (usually one screen or a functional routine).

3.2.1254 Unit training. Individual, collective, and joint or combined training conducted at the unit level.

3.2.1255 UNIX. A multi-user computer operating system.

3.2.1256 Upward compatible. Programs written on a low level of system configuration for a particular processor that will operate without change on higher level configurations using the same processor.

3.2.1257 User. That command, unit, or element which is the recipient of the item required for accomplishing a designated mission.

3.2.1258 User-friendly software. Computer programs or systems designed for simplicity of operation by non-technical users. The ease of use of software designed to facilitate data entry, screen formatting, database definition, inquiry, report generation, and other applications. This software must be of such sophistication that a user may learn to use it with a minimum of formal training.

3.2.1259 User-supported software. Any software that is financially supported by its users.

3.2.1260 User survey. A collection of information from users on the subject of the evaluation.

3.2.1261 Utility. A specialized program that allows an operator to modify or extract data from a program.

3.2.1262 Validation. The process by which products are reviewed for accuracy, completeness, adequacy, suitability for presentation, life-cycle maintenance capability, and effectiveness in providing for the student's accomplishment of the learning objectives. Training data products are also validated for compliance with the provisions of the specifications and other contractual requirements. Validation is accomplished by comparing the data product with the actual use for which the data product was prepared. Validation is normally accomplished in tryouts with a representative student target population. The materials are revised as necessary based on the results of the validation process.

3.2.1263 Validity. A broad term that refers to the extent to which a test measures what it is intended to measure. Although there are several types of validity and different classification schemes for describing validity there are two major types of validity that test developers must be concerned with, they are content-related and criterion-related validity.

3.2.1264 Valid test. One that separates those who can perform (performers) from those who can't (non-performers).

3.2.1265 Value engineering. Refers to the process of designing equipment or instruction to meet but not exceed the required outcomes. Generally, it refers to the elimination of features or instructional objectives that have not been demonstrated to be positively necessary.

3.2.1266 Variable attributes. Characteristics shared by some but not all members of a class of people, objects, events, ideas, or actions that are grouped together on the basis of shared critical attributes and called by the same concept name.

3.2.1267 Varied repetition. Design elements that repeat a segment of a lesson differently to enhance learning.

3.2.1268 Vector graphics. Images which are stored and displayed as line segments identified by the X-Y coordinates of their end points.

3.2.1269 Verification. A review process to ensure that a training product meets all stipulated requirements, is in compliance with applicable DoD standards and specifications, is complete and consistent with the supported system configuration, is usable in the intended training environment, and supports effective training.

3.2.1270 Vertical alignment of tasks. Tasks are vertically aligned when a task identified for a specific skill or organization level supports a task at the next higher skill level. Tasks in the same category (subject area) must be progressive, i.e., they show an increase in performance required at the next higher skill level, the conditions and standard are more exacting, or there are increased supervisory responsibilities when compared to supporting tasks. The task should indicate the increase in required performance or supervisory responsibilities.

3.2.1271 Vertical alignment of training. Training is vertically aligned when tasks for a particular skill level are built upon skills, knowledge, and behaviors gained during previous training and/or operational assignments. If tasks are in the same general categories, then their training must be progressive -- they must show an increase in the skill level required to accomplish them, the conditions and standards must be more exacting, or the tasks represent increased supervisory responsibilities when compared to related tasks trained earlier. Task statements should indicate the increase in required skill level or supervisory responsibility.

3.2.1272 Vertical sync. The pulse used to synchronize the vertical scan of the video monitor.

3.2.1273 Video address code. Time code, indicating each video frame by reel, hour, minutes, seconds, frame number, picture, chapter, or still cue code.

3.2.1274 Video crawl. Alphanumeric text that moves across a screen, horizontally or vertically. A steady controlled text movement, such as the display of credits.

3.2.1275 Videodisc. A generic term used to describe a medium of audiovisual information storage. A thin circular plate composed of translucent layered plastics sandwiching a metal layer on which video, audio, and digital information are encoded as a series of shallow microscopic pits along a circular or spiral track for playback on a television monitor. Videodisc is an information storage medium for analog/digital (e.g., video, audio, and control signals) data. There are many types of videodisc formats. Also see the definitions for “Compact Disc (CD)” and "optical disk”.

3.2.1276 Videodisc formats. The different forms and organization of data on a videodisc, such as reflective optical videodisc (laser), transmissive optical videodisc (laser film), Capacitive Electronic Disk (CED), magnetic videodisc, and Video High Density (VHD).

3.2.1277 Video display unit. Television-type Cathode Ray Tube (CRT) (raster format) which decodes and displays information from a video source signal. Also see the definition for "monitor".

3.2.1278 Video Graphics Array (VGA). An expansion card for an IBM personal computer that is inserted into the computer's expansion slot to enable the computer to process and display color graphics and text at a resolution of 640x480 Pixels.

3.2.1279 Video head. The unit within a videotape player/recorder that reads video signals recorded on tape.

3.2.1280 Video Home System (VHS). A consumer one-half inch videotape format. It employs 1/2 inch (12.65 mm) videotape in a 7 1/2 inch by 4 inch (190 mm x 105 mm) cassette.

3.2.1281 Video levels. Chrominance and luminance (color and brightness) levels.

3.2.1282 Video segment. Identical to the definition for "video still". Also see the definition for "video sequence".

3.2.1283 Video sequence. A segment of video that is intended to be displayed such that an on-screen display appears to be in smooth and continuous motion. A series of individual stills intended to be played sequentially to show motion of images. Two or more video frames forming one visual unit. Also called "video segment" and "video still".

3.2.1284 Video still. Identical to the definition for "still frame". Also see the definition for "video sequence". Also called “video segment”.

3.2.1285 Videotape. A magnetic tape that can record and play back audio (sound) and video (pictures). It can also hold electrical signals used in editing and in interactive video applications. The tape is made of polyester film, which is strong and flexible, but not elastic. A carbon backing reduces the build-up of static electricity when the tape is in use. A magnetically sensitive emulsion, which commonly contains a magnetic oxide powder, a binder and a lubricant, forms the recording surface. A neutral topcoat helps to protect the emulsion against dirt and damage. Audio signals are usually recorded in a narrow band along one edge of the tape, in closely-packed vertical tracks. Audio signals are recorded and replayed by a separate audio head. A control track runs along a narrow band on the outer edge. This is where the field sync pulse is recorded; it regulates the running speed of the tape. A narrow cue track, which records signals, often contains codes and verbal memoranda used in editing. The video signal and the line sync pulse are recorded in shallow diagonal tracks on the wide band in the center of the tape.

3.2.1286 Video Tele-Training (VTT). A distance learning technology using live video and audio. VTT includes student participation in the form of two-way communication between personnel conducting the program and students located at remote sites.

3.2.1287 Virtual. Existing or resulting in effect though not in fact. In computing, a virtual device may reside only in memory while representing a hardware peripheral. Virtual devices may help programmers avoid hardware incompatibilities.

3.2.1288 Virtual Device Interface (VDI) management. The system-level software that is responsible for executing and responding to core and extended commands received from ICW or authoring systems via the American Standard Code for Information Interchange (ASCII) or binary interface.

3.2.1289 Visual Information (VI). Use of one or more of the various visual media with or without sound. VI includes still photography, motion picture photography, video recording with or without sound, graphic arts, visual aids, models, displays, visual presentation services, and the support processes.

3.2.1290 Visual Information (VI) production. The process of combining or arranging any separate audio or visual product(s) in continuity in a self-contained, complete presentation that is developed according to a plan or script for conveying information to, or communicating with, an audience. A VI product is also the end item of the production process. Used collectively, VI production refers to the functions of procurement, production, or adoption from all sources; that is, in-house or contract production, off-the-shelf purchase, or adopting from another Federal agency.

3.2.1291 Visual simulation. The simulation of relevant parts of a place or object as seen by the eye, often as seen through an optical system. For a training simulator, usually the presentation of the external, out-the-window or through-the-periscope visual environment of a training program.

3.2.1292 Visual spectrum. The type of color required of instructional materials. Some must be with full color, some with reduced color pallets, others with black and white or shades of gray.

3.2.1293 Voice-activated. Hardware or equipment activated by the sound of the human voice.

3.2.1294 Voice-frequency. That frequency in the part of the audio frequency range essential for the transmission of commercial quality speech.

3.2.1295 Voice-over. Typically, live action with the original soundtrack replaced by scripted or spontaneous commentary delivered by a speaker who may or may not appear before the camera.

3.2.1296 Voice recognition. A computer capability that allows for recognition and response to inputs provided by the human voice. A human utterance is recognized by a computer and then converted into machine-usable binary code. Also called "speech recognition".

3.2.1297 Volatile memory. Identical to the definition for "volatile storage".

3.2.1298 Volatile storage. A storage medium in which stored data is lost when operating power is removed. Also called “volatile memory”.

3.2.1299 Volume Unit (VU) meter. A device used to measure audio signal levels.

3.2.1300 Weapon systems training. Organized training conducted in a formal situation on weapons, weapon systems, and related equipment for both operator and maintenance personnel.

3.2.1301 Weight points. A means of identifying which lessons, tests, learning objectives, etc. are more or less important in relation to the total training program. Weight points are assigned to each test according to the importance of the test to job performance. A scale of 0 to 1000 is often used. Weight point distribution is shown in the student evaluation plan.

3.2.1302 What You See Is What You Get (WYSIWYG). Refers to a graphic display mode in which the page on the screen shows exactly how the printed page will appear. (Pronounced “wizzy wig”.)

3.2.1303 Whole-task practice. An exercise, performed with or without a training device, which allows students to practice an entire task at one time.

3.2.1304 Wildcard. A representation of all possible variables. A computer command that can represent one or more characters, numbers, or symbols.

3.2.1305 Window. A defined portion of a display screen in which a video image or other information may be shown.

3.2.1306 Windowing. The practice of not completely clearing or changing to a new display screen in order to present new information. A small portion of the screen is defined, activated, and used to display the new information. When this window is removed, the original screen display remains.

3.2.1307 Wipe. A visual effect created by a special effects generator where one picture replaces another by sliding in from the edge of the screen.

3.2.1308 Word processor. A computer-based system, including hardware and software, for creating, editing, manipulating, formatting, storing, and printing documents.

3.2.1309 Work sample. A sample problem representative of the job as a whole, chosen and adapted for the purpose of testing performance on important operations of the job as nearly under normal conditions as possible apart from an actual tryout. Performance on a work sample is frequently used as a criterion against which prediction devices in evaluation are validated.

3.2.1310 Write. To transcribe recorded data from one place to another, or from one medium to another.

3.2.1311 Write-Once-Read-Many (WORM). A technology that will allow data to be written only once and read many times. A type of permanent optical storage that allows the user to record information on a blank disk but does not allow erasure or change of that information, once recorded.

3.2.1312 Writing speed (video). The speed at which the video heads on a quadruplex or helical scan video recorders revolve in relation to the videotape passing across the video head drum.

3.2.1313 Zoom. To scale a display so that it is magnified or reduced on the screen.

4. NOTES

4.1 Intended use. This handbook is intended to be an aid in the analysis, design, development, implementation, and evaluation of training programs.

4.2 Subject term (key word) listing.

Animations
Audio
Categories of ICW presentation
Computer Aided Instruction (CAI)
Computer Managed Instruction (CMI)
Course
Courseware
Courseware Management Systems (CMS)
Electronic guides
Electronic Performance Support Systems (EPSS)
Electronic publications
Electronic testing
Evaluation
Examination
Graphics
Instructional
Instructional delivery system
Interactive Courseware (ICW)
Interactive Multimedia Instruction (IMI)
Lesson
Learning objective
Levels of Interactivity
Media
Multimedia
Simulations
Test
Training
Training aid
Training data product
Training equipment
Training situation
Training support
Training system
Video

CONCLUDING MATERIAL

Custodians:
Army - AV
Navy - AS
Air Force – 94
DLA -DH

Review Activities:
Army – TM
Navy - EC, MC, SH, TD
Air Force – 11
NSA - NS
DLA- CC, GS, IS, DP

Preparing Activity:
Navy - AS

(Project ALSS-0079)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.

2. The submitter of this form must complete blocks 4, 5, 6, and 7, and send to preparing activity.

3. The preparing activity must provide a reply within 30 days from receipt of the form.

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I RECOMMEND A CHANGE:	**1. DOCUMENT NUMBER** MIL-HDBK-29612-4	**2. DOCUMENT DATE** (*YYYYMMDD*) 19990730

3. DOCUMENT TITLE
GLOSSARY FOR TRAINING (PART 4 OF 4 PARTS)

4. NATURE OF CHANGE (*Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.*)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (*Last, First, Middle Initial*)	b. ORGANIZATION	
c. ADDRESS (*Include ZIP Code*)	d. TELEPHONE (*Include Area Code*) (1) Commercial (2) DSN (*If applicable*)	**7. DATE SUBMITTED** (*YYYYMMDD*)

8. PREPARING ACTIVITY

a. NAME COMMANDER NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION	b. TELEPHONE (*Include Area Code*) (1) Commercial (732) 323-2947 (2) DSN 624-2947
c. ADDRESS (*Include ZIP Code*) CODE 414100B120-3 HIGHWAY 547 LAKEHURST, NJ 08733-5100	**IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:** Defense Standardization Program Office (DLSC-LM) 8725 John J. Kingman Road, Suite 2533 Fort Belvoir, Virginia 22060-6221 Telephone (703) 767-6888 DSN 427-6888