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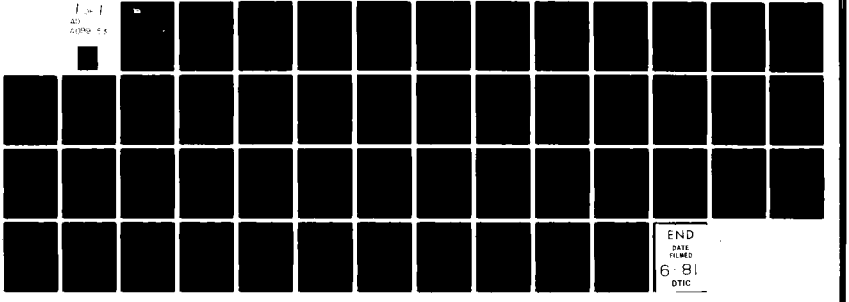

UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT

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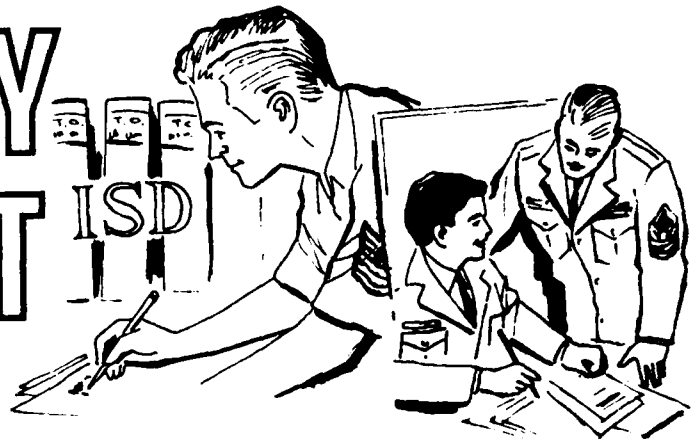

INSTRUCTIONAL SYSTEMS CAREER LADDER

AESC 751X3. (Vol. IV)

AFPT 90-751-408

VOL. IV OF IV

MARCH 1981

OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT CENTER
AIR TRAINING COMMAND
RANDOLPH AFB, TEXAS 78148

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PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Instructional Systems career ladder (AFS 751X3). The project was undertaken at the request of the Air Force Manpower and Personnel Center (AFMPC) and was directed by USAF Program Technical Training, Volume II, dated October 1979. Authority for conducting occupational surveys is contained in AFR 35-2. Computer outputs from which this report was produced are available for use by operating and training officials.

The United States Air Force occupational analysis program originated in 1956 when initial research was undertaken by the Air Force Human Resources Laboratory to develop the methodology for conducting occupational surveys. In 1967, Air Training Command (ATC) established an operational analysis program which initially produced 12 enlisted career ladder surveys annually. The program was expanded in 1972 to produce surveys of 51 career ladders each year and again in 1976 to include the survey of officer utilization fields, to permit special applications projects, and to support interservice or joint service occupational analyses.

The survey instrument used in the present project was developed by Second Lieutenant Andrew D. Mellors, Inventory Development Specialist. Mr. Guy B. Cole directed the analysis of this three-specialty study, analyzed the 751X3 survey data, and wrote this volume of the final report. This report has been reviewed and approved by Lieutenant Colonel Jimmy L. Mitchell, Chief, Airman Analysis Section, Occupational Analysis Branch, USAF Occupational Measurement Center, Randolph AFB, Texas 78148.

Copies of this report are available to air staff sections, major commands, and other interested training and management personnel upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Analysis Branch (OMY), Randolph AFB, Texas 78148.

This report has been reviewed and is approved.

BILLY C. McMASTER, Col, USAF
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SUMMARY OF RESULTS

1. Survey Coverage: Inventory booklets were administered worldwide to personnel assigned to the Instructional Systems (751X3) career ladder in conjunction with a combined study of the Education (751X0), Training (751X2), and Instructional Systems (751X3) specialties. Survey results are based on responses from 101 Instructional Systems incumbents, or 61 percent of the total assigned AFS 751X3 personnel.

2. Job Structure: Analysis of survey responses revealed a very heterogeneous job structure within the AFS 751X3 ladder. Only 67 percent of the respondents formed recognizable job clusters or job types. Of the six job types identified, only two, representing approximately 35 percent of the sample, performed tasks encompassing the full scope of Instructional Systems Development. Two additional job types, representing approximately 25 percent of the incumbents, were primarily involved in developing scripts and slide-tape programs. An additional job type, comprising four percent of the sample, included ISD Program Development Chiefs. Another, representing three percent, included supervisors of non-ISD training functions.

3. Career Ladder Documents: A review of the AFR 39-1 specialty description reveals that this document adequately describes the functions of this ladder. The Specialty Training Standard (STS) also appears to cover the skill and knowledge items that are required in this specialty.

4. Level of Experience in Instructional Systems Development: Although 80 percent of the members of this career ladder have eight or more years in service, over 70 percent have less than four years experience in this specialty.

5. Education Level: Over 50 percent of the survey respondents have no more than 13 years of formal education, a rather low education level considering the scope and complexities of instructional system technology.

6. Technical Training: A variety of technical training courses are available for personnel in this specialty. However, no specific course is prescribed for all personnel. Eight percent of this specialty have not attended any technical training course listed in the inventory. Most of the remaining 92 percent have attended one or more of the 10 courses available.

7. Job Satisfaction: Compared to the Education (751X0) and Training (751X2) specialties, job satisfaction indicators of ISD (751X3) incumbents are low. Thirty-nine percent found their job dull or so-so. Thirty-seven percent felt that their talents and training were used very little or not at all.

8. Implications: Current utilization of ISD personnel is limited by differences in management policies. There is a need for a more clearly defined role and a specific Air Force commitment to the support of ISD. Once the role of the ISD technician has been clearly identified and management problems resolved, then changes to the present classification structure may be warranted. These changes may involve such issues as alternate classification categories (merger, SDI, SEI, etc.), and more stringent selection and training. A utilization conference of ISD functional managers is needed to determine the future of the specialty.

OCCUPATIONAL SURVEY REPORT
INSTRUCTIONAL SYSTEMS CAREER LADDER
(AFSC 751X3)

INTRODUCTION

This is a report of an occupational survey of the Instructional Systems (AFSC 751X3) specialty completed by the Occupational Analysis Branch, USAF Occupational Measurement Center, in February 1981. A previous survey of the 751X3 specialty was published in July 1979. This current survey was conducted at the request of the Classification Branch of the Air Force Manpower and Personnel Center to assist in the evaluation of the present classification structure of several 751XX specialty areas To facilitate comparison of tasks performed, a combined survey instrument was developed and administered to personnel in the Education (751X0), Training (751X2) and Instructional Systems (751X3) career ladders, including AFSC 75193. The results of this survey are being reported in four separate volumes--a combined report covering general findings across all three ladders (AFPT 90-751-408, Vol. I) and separate reports dealing specifically with each ladder (Vol. II, Education; Vol. III, Training; and Vol. IV, Instructional Systems Development). This report is Vol. IV and concentrates primarily on the results relating to the Instructional Systems specialty.

Background

The Instructional Systems specialty was initially established in 1964 as the Instructional Programmers career ladder, AFSC 005X0. The title and AFSC designation of the career ladder was changed to Instructional Programming Specialist, AFS 751X3, in 1968. The current title of Instructional Systems Specialist was assigned in 1972.

The Air Force first used Instructional Systems Design (ISD) techniques to develop major training program revisions in 1965. Since that time, the ISD process has been successfully employed to design a variety of instructional systems and courses. Air Force policy now directs the use of the ISD process when developing all Air Force curricula (see AFM 50-2).

Basically, the ISD process consists of five steps:

(1) analyzing systems requirements
(2) defining education or training requirements
(3) developing objectives and tests
(4) planning, developing, and validating instruction; and
(5) conducting and evaluating instruction

As outlined in the current AFR 39-1 Specialty Description, personnel in this career ladder are responsible for applying the ISD process in developing instructional systems to increase the effectiveness of education and training programs, evaluating student or trainee achievements, and supervising instructional system activities.

The enlisted personnel in this career ladder represent only a small portion of the Air Force personnel who are engaged in ISD functions. Normally training development organizations include primarily subject matter specialists, either officer or enlisted, who have considerable experience in the career area for which training is being designed and who normally have also attended formal training in ISD. Most of these organizations are headed by Training officers. In many cases, civilian Training Specialists also are available for advice and guidance or final review of the Training course.

Personnel entering this career ladder must be qualified in any 5-skill level AFSC. No formal training is required for entry into the Instructional Systems specialty; however, several courses are available for personnel in this field. These include AZR75133, Instructional System Designer; 3AIR75160, Instructional Systems Materials Development; and 3AIR75130, Instructional Systems Development.

Objectives

This report will primarily examine the Instructional Systems specialty (AFSC 751X3) on the basis of tasks performed by the 751X3 survey respondents. The survey instrument used to collect the data for this report was a combined task list covering the Education, Training, and Instructional Systems career ladders (AFSC's 751X0, 751X2, and 751X3). Topics covered in this report include: (1) development and administration of the survey instrument; (2) the jobs performed by 751X3 personnel; (3) CONUS and overseas differences; (4) differences between command utilization of 751X3 personnel; (5) comparison of the job structure to current AFR 39-1 Specialty Descriptions, and the Specialty Training Standard (STS); and (6) job satisfaction and other related background data.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this survey was USAF Job Inventory AFPT 90-751-408, dated January 1980. The current inventory was developed using previous inventories and occupational survey reports of the 751X0, 751X2, and 751X3 career ladders; career ladder publications and directives; and detailed interviews with training and classification personnel. The resulting task list was further modified and refined through personal interviews with 25 subject matter specialists from eight operating locations selected to provide a comprehensive coverage of the various kinds of jobs and/or organizations in which personnel from these career ladders work. This process resulted in a final inventory containing 499 tasks; and a background section that included a variety of information about respondents, such as grade, Total Active Federal Military Service (TAFMS), Time in the Career Field (TICF), duty title, organization, and job interest.

Survey Administration

During the period January through May 1980, consolidated base personnel offices in operational units worldwide administered the inventory booklets to job incumbents holding Instructional Systems DAFSCs (75133 and 75173). The job incumbents were selected from a computer-generated mailing list obtained from master AFMPC personnel data tapes maintained by the Air Force Human Resources Laboratory (AFHRL).

Each individual who partcipated in the survey first completed a background information section and then checked tasks performed in their current job. Each incumbent then rated each of the tasks performed on a nine-point scale showing the relative time spent on that task as compared to all other tasks checked. The relative time ratings range from one (very small amount of time spent) through five (about average time spent) to nine (very large amount of time spent). To determine relative time spent for each task checked by a respondent, all an incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job. These ratings were summed and then divided by the number of responses and the quotient multiplied by 100. This procedure provides a basis for comparing tasks not only in terms of percent members performing, but also in terms of average percent time spent on tasks and groups of tasks.

Data Processing and Analysis

Task responses and background information from each returned inventory booklet were optically scanned. Biographical information was keypunched onto disk tapes and entered directly into a UNIVAC 1108 computer. Once both sets of data were entered into the computer, they were merged to form a complete case record for each respondent. Comprehensive Occupational Data Analysis Programs (CODAP) techniques were then applied to the data.

CODAP produces job descriptions for respondents based on their responses to specific inventory tasks. These descriptions reflect: a) percent members performing each task; b) the average pereent time spent by members performing; c) the average percent time spent by all members; and d) the cumulative average percent time spent by all members for each task in the inventory.

Task Factor Administration

In addition to completing a job inventory, selected senior 751X3 personnel were also asked to complete a second booklet rating the difficulty of each of the tasks in the inventory. These senior NCO's were asked to rate all tasks on a nine-point scale that ranged from extremely low to extremely high difficulty. Difficulty is defined as the time it takes an average incumbent to learn to do a task. The interrater reliability (as assessed through components of variance of standard group means) for the 34 DAFSC 751X3 raters who returned useable booklets was .91, which suggests very high agreement among raters. Ratings were then adjusted so that tasks of average difficulty have ratings of 5.0. The resulting data is a rank ordering of tasks indicating a degree of difficulty for each task in the inventory.

Survey Sample

Table 1 relects the major command distribution of personnel assigned to the 751X3 career ladder as of March 1980 and the distribution of incumbents in the survey sample. The 101 respondents making up the final sample represent 61 percent of the 165 members assigned to the specialty. Table 2 reflects the distribution of the survey sample in terms of paygrade. Although AFMPC assignment data for 751X3 personnel did not show any E-8s assigned as 75133 or 75173, five percent of the survey respondents were E-8s. In addition, although the sample was slightly biased toward the higher grades (E-6 and E-7), overall representation was adequate. While Air Force experience was high (see Table 3), specialized experience as represented by time in this career ladder was quite low. As shown in Table 4, 70 percent of the survey respondents had four years or less experience in this ladder. Overall, the survey sample provides adequate representation of all major commands and DAFSCs.

TABLE 1

COMMAND REPRESENTATION OF SURVEY SAMPLE

COMMAND	PERCENT ASSIGNED	PERCENT SAMPLED
TAC	39	38
ATC	21	25
MAC	18	18
SAC	9	9
USAFE	6	3
AFSC	2	4
OTHER	5	3
	100	100

TABLE 2

PAYGRADE REPRESENTATION OF SURVEY SAMPLE

PAYGRADE	PERCENT ASSIGNED	PERCENT SAMPLED
AIRMEN	0	0
E-4	13	14
E-5	37	32
E-6	33	29
E-7	17	20
E-8	0	5
	100	100

TABLE 3

TAFMS DISTRIBUTION OF SURVEY SAMPLE

	1-48	49-96	97+
NUMBER IN SAMPLE	3	17	81
PERCENT OF SAMPLE	3%	17%	80%

TABLE 4

TICF DISTRIBUTION OF SURVEY SAMPLE

	1-48	49-96	97+
NUMBER IN SAMPLE	71	25	5
PERCENT OF SAMPLE	70%	25%	5%

JOB STRUCTURE

One important aspect of the occupational analysis program is to examine the job structure of career ladders on the basis of what people report they are actually doing in the field. This analysis of job structure is made possible by the use of the Comprehensive Occupational Data Analysis Program (CODAP). Using this program, jobs may be identified on the basis of similarity in tasks performed and relative time spent performing those tasks.

The structure analysis process involves determining job structure of career ladder personnel in terms of clusters, job types, and independent job types. A job type is formed when a group of individuals perform many of the same tasks and spend similar amounts of time on them. A cluster is the result of the coming together of two or more job types based on the existence of a substantial degree of similarity in tasks performed. Independent job types are job types that are too dissimilar to group into any cluster.

Specialty Structure Overview

The job structure for the Instructional Systems specialty was determined from a job type analysis of all respondents to the Education, Training, and Instructional Systems (AFSC 751X0, 751X2, and 751X3) job inventory. The three career ladders were analyzed together to determine job groups unique to each specialty and to determine the extent of duty and task overlap between members of the three specialties. This report will concentrate primarily on jobs performed by members of the 751X3 career ladder. For a more comprehensive discussion of the interrelationships between the three education and training career ladders covered in this survey, see the joint report (AFPT 90-751-408, Vol. I) and the two companion reports (AFPT 90-751-408, Vols. II and III).

Based on task similarity and amount of time spent performing each task, the jobs performed by Instructional Systems personnel responding to the survey are listed below and illustrated in Figure 1. (GRP or SPC numbers are shown with each group as a cross-reference to computer printed summaries used in the analysis of the survey data.)

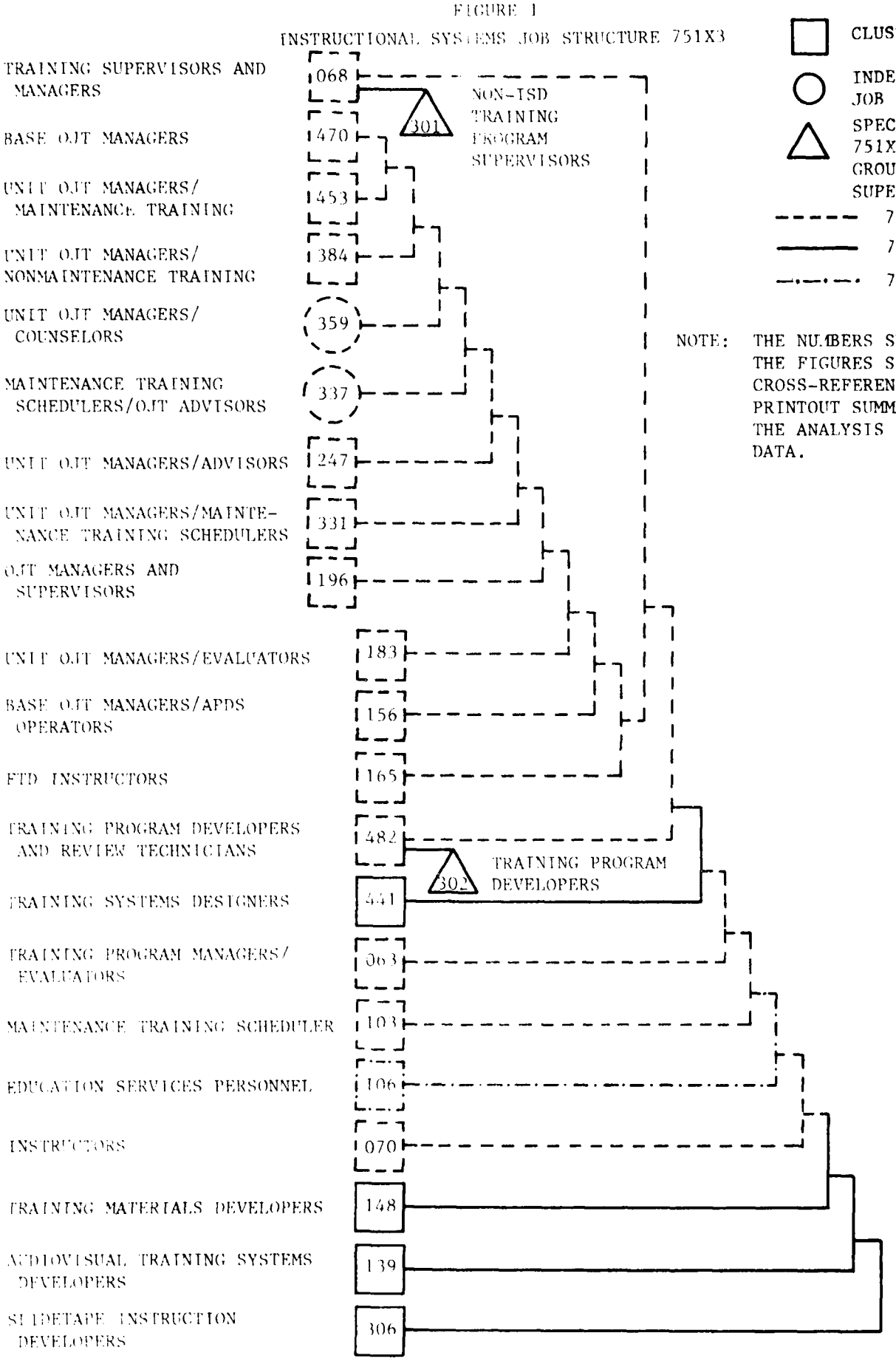
I. Training Program Developers (SPC302, N=4)
II. Training Systems Designers (GRP441, N=17)
III. Training Materials Developers (GRP148, N=18)
IV. Audiovisual Training Systems Developers (GRP139, N=16)
V. Slidetape Instruction Developers (SPC306, N=10)
VI. Non-ISD Training Program Supervisors (SPC301, N=3)

Cluster and Independent Job Type Descriptions

Brief descriptions of each cluster and independent job type are presented below. Tables 5 and 6 at the end of this section reveal additional background information about these groups. Appendix A lists representative tasks performed by members of the clusters and job types described.

FIGURE 1

INSTRUCTIONAL SYSTEMS JOB STRUCTURE 751X3



I. Training Program Developers (SPC302, N=4). This small group of four senior NCOs, in addition to supervising training development functions, perform essentially the full range of Instructional Systems Design. The characteristic functions performed by these personnel pertain mostly to the development and evaluation of training programs and materials and directing or managing training development functions, although three of the four also develop scripts and slidetape presentations.

Characteristically, these individuals perform an average of 145 tasks, considerably more than any other group of 751X3 personnel. There were 53 tasks which were performed by all members of this group. Typical tasks included:

Evaluate training programs
Evaluate training techniques
Perform composition and instructional edit of written, oral, or graphic materials
Develop plans of instruction
Develop lesson plans
Evaluate training methods
Evaluate course outlines or lesson plans
Evaluate effectiveness of instructional designs, instructional media, or instructional methods
Evaluate instructional strategies
Develop or improve work methods or procedures
Determine correlations of criterion objectives to instructional media
Present course materials by audiovisual methods

Commensurate with the nature and variety of technical and supervisory functions performed, these individuals are among the more experienced ISD personnel in the survey, both in terms of total military service and time in the career ladder (see Table 5). In addition, as shown in Table 6, all of these incumbents felt that their job was interesting and utilized their talents and training fairly well or better.

II. Training Systems Designers (GRP441, N=17). The 17 members of this group perform a wide range of ISD functions involving all five steps of the ISD process. As shown on Table 7, a majority of the personnel in this group perform many of the tasks common to each of the various steps of the ISD process. For example, all personnel in this group perform such tasks as:

Develop plans for designing instructional systems
Develop criterion objectives
Determine correlations of criterion objectives to instructional designs
Evaluate the effectiveness of instructional designs and media

These are tasks which are representative of steps 1, 3, 4 and 5 of the ISD model. Tasks representative of step 2, such as analyze interview results to determine consequences of inadequate performance or ease or difficulty of

learning tasks or knowledges, were performed by 71 percent of these personnel. Although the major emphasis of this group, in terms of the number of tasks performed and time spent, was on the planning, developing, and validating instruction and conducting and evaluating instruction, the final steps in the ISD process, it is obvious that these personnel accomplish the full scope of training systems design and development.

Although approximately half of the members of this group supervise one or more subordinates, the supervisory functions are secondary to the performance of the technical ISD functions performed.

Over half of the personnel in this group are from TAC and 24 percent from SAC. Generally these personnel are relatively well satisfied with their jobs and almost all feel that their talents and training are used fairly well or better.

III. Training Materials Developers (GRP148, N=18). Although this group of 18 ISD technicians perform many of the tasks that are common to the Training Systems Designers group (II above), these personnel are much more limited in the application of the steps of the ISD process. Although one or two tasks relative to each of the ISD processes are performed by substantial percentages of these personnel, their primary functions involve the planning, developing, and validating of instruction. Other ISD functions, such as analyzing systems requirements, defining educational or training requirements, and conducting and evaluating instruction are minor aspects of their overall job. As shown in Table 5, these personnel perform an average of 63 tasks, half the number performed by Training Systems Designers. Some of the most significant differences in tasks performed by these two groups are illustrated in Table 8. As these differences illustrate, the systems design group performs a much broader scope of tasks than do these personnel.

As in the previous group, half of these individuals were assigned to TAC. Most of the remainder were in MAC, with small percentages in SAC, ATC, and USAFE. Although slightly higher percentages of this group found their job interesting, considerably more of these personnel felt that their talents and training were utilized very little or not at all than was reported by the Training Systems Designer group (see Table 6).

IV. Audiovisual Training Systems Developers (GRP139, N=16). These personnel are representative of a group of ISD technicians who are assigned to a very narrow range of tasks concerned with the production of slidetape training materials, and who do not perform the full range of ISD functions. This group of ISD personnel are much less homogeneous in tasks performed than members of the previous groups. Although all of these individuals are involved in the development of scripts and slidetape instructional presentations, their performance of tasks relating to the full scope of ISD varies greatly, with only 14 tasks common to 50 percent or more of the group. As reflected in Table 5, this group is composed of personnel who have an average grade of E-5 and average considerably less than three years experience in the career ladder. In addition, 50 percent have been in their present job one year or less. Although the limited experience in ISD may be a contributing factor to the relatively narrow task assignments of these personnel, approximately 40 percent found their job dull or so-so and felt that their job used their talents and training very little or not at all (see Table 6).

V. Slidetape Instruction Developers (SPC306, N=10). This group of 10 ISD personnel form a heterogeneous grouping of personnel who develop slidetape instruction. The tasks which are common to 50 percent or more of the members of this group are:

Develop slidetape instructional presentations
Develop scripts
Develop story boards
Develop plans for designing instructional systems
Perform instructional edit of written, aural, or graphic materials
Develop criterion objectives
Develop criterion subobjectives

Although a number of other tasks are performed by small percentages of the group, these tasks represent the primary functions performed.

As in the previously described group (Audiovisual Training Systems Developers), individuals vary greatly as to the performance of the various ISD tasks. Few of these individuals, however, perform tasks representing the full range of ISD. As shown in Table 5, personnel in this group were assigned to a variety of commands and worked in various areas and at a variety of command levels. Table 6 shows that as a group these personnel were quite dissatisfied with their job. Only half reported that their job was interesting. In addition, 50 percent reported that their job utilized their talents little or not at all while 60 percent felt that their training was used little or not at all.

VI. Non-ISD Training Program Supervisors (SPC301, N=3). The three 75173 technicians included within this group serve as NCOICs of three diverse training functions. As a group, these individuals devote almost three-fourths of their time to supervisory functions, such as:

Establishing organizational policies, office instructions (OIs), or Standing Operating Procedures (SOPs)
Establishing performance standards for subordinates
Drafting correspondence
Counseling personnel on personal or military related problems
Preparing APRs
Administering course critiques
Evaluating adequacy of classrooms or briefing rooms
Administering written tests

Although a number of technical tasks are performed by each of these individuals, these are unique to each position and relate primarily to OJT management or computer assisted training. Very few tasks performed by any of the three individuals reflected a requirement for knowledge or application of ISD in the performance of their job. This could account for the low interest in their job by the two individuals who found their job dull (see Table 6). In addition, one reported that the job used his talents and training little or not at all, another indication of possible inappropriate utilization of ISD resources.

Specialty Structure Summary

The respondents forming the clusters and job types outlined above account for approximately 67 percent of the 75133 and 75173 personnel in the survey sample. The remaining 33 percent were performing jobs that were so unique that they did not group with any of the job types or clusters shown above. Some of the personnel who were not grouped performed very specialized functions, such as command ISD manager; NCO, Testing and Evaluation Section; and Learning Center Technician. Others were ISD technicians whose tasks were so different from any of the job type groups above and from each other that no meaningful grouping was found.

Overall, the job type analysis for this specialty reflects an extremely heterogeneous job structure for ISD personnel. Although most of the respondents performed some aspects of ISD, there is great variance in the degree to which they performed these functions. For example, members of the Training Program Developers (Group I) and the Training Systems Designers (Group II) performed a variety of tasks encompassing the full scope of Instructional Systems Design. Personnel in the Training Materials Developers job group (Group III) were more limited in application, but were still involved to some degree in most of the ISD steps. These three groups, however, included only approximately 40 percent of the ISD technicians in the sample. Although most of the remaining 60 percent are involved to various degrees in the production of training materials, such as development of slidetape or other instructional materials, task data indicates that most of these individuals apply only a few of the steps of the ISD model in performing their assigned job.

In view of the manner in which ISD is performed and the long process involved, it is understandable that many of these personnel are not involved in the full ISD design and development. However, as in most career ladders, the degree of job satisfaction and perceived utilization of talents and training appears to be directly related to the extent to which personnel perform the major functions of the specialty. As reflected in Table 6, personnel in those groups performing the most tasks and applying essentially the full range of the ISD process found their job interesting and felt that their talents and training were utilized fairly well or better. Those who performed only a few tasks, primarily associated with the production of slidetape instructional materials, were considerably less satisfied with their job. Generally, for those personnel who did not group in the cluster analysis due to the small number of tasks performed and unique assignments, a high percentage found their jobs dull or so-so and felt that their talents and training were used little or not at all.

TABLE 5

BACKGROUND INFORMATION FOR JOB TYPE GROUPS

	TRAINING PROGRAM DEVELOPERS (N=4)	TRAINING SYSTEMS DESIGNERS (N=17)	TRAINING MATERIALS DEVELOPERS (N=18)	AUDIOVISUAL TRAINING SYSTEM DEVELOPERS (N=16)	SLIDETAPE INSTRUCTION DEVELOPERS (N=10)	NON-ISD TRAINING PROGRAMS SUPERVISORS (N=3)
AVERAGE NUMBER OF TASKS PERFORMED	145	128	63	35	29	56
AVERAGE MONTHS IN CAREER FIELD	46	42	37	32	50	108
AVERAGE MONTHS IN FEDERAL SERVICE	211	177	174	140	176	257
AVERAGE PAYGRADE	6.8	6.1	5.8	5.1	5.5	7.6
SERVE AS ISD TRAINING ADVISOR	100%	58%	61%	56%	60%	67%
COMMAND LEVEL CURRENTLY ASSIGNED:						
AIR FORCE	-	-	-	-	-	-
MAJOR COMMAND	-	-	33%	25%	40%	-
NUMBERED AIR FORCE	-	-	-	-	-	-
WING	50%	65%	44%	50%	40%	67%
SQUADRON	50%	29%	17%	25%	20%	-
OTHER	-	6%	6%	-	-	33%
AREA MOST CLOSELY DESCRIBING AREA WORKED IN:						
TECHNICAL TRAINING CENTER	75%	24%	28%	19%	20%	-
TRAINING MANAGEMENT OFFICE	25%	59%	14%	56%	20%	33%
FIELD TRAINING DETACHMENT	-	-	11%	6%	20%	-
OTHER	-	17%	28%	19%	40%	67%
MAJOR COMMAND						
TAC	-	53%	50%	50%	20%	33%
SAC	-	24%	6%	-	20%	-
MAC	25%	6%	33%	19%	30%	-
ATC	50%	12%	6%	6%	30%	33%
AFLC	-	-	-	-	-	33%
PACAF	25%	-	-	-	-	-
AFSC	-	6%	-	6%	-	-
USAFE	-	-	6%	19%	-	-

TABLE 6

JOB SATISFACTION DATA FOR JOB TYPE GROUPS
PERCENT MEMBERS RESPONDING

	TRAINING PROGRAM DEVELOPERS (N=4)	TRAINING SYSTEMS DESIGNERS (N=17)	TRAINING MATERIALS DEVELOPERS (N=18)	AUDIOVISUAL TRAINING SYSTEM DEVELOPERS (N=16)	SLIDETAPE INSTRUCTION DEVELOPERS (N=10)	NON-ISD TRAINING PROGRAMS SUPERVISORS (N=3)
I FIND MY JOB:						
DULL	-	6	6	31	30	67
SO-SO	-	12	11	13	20	0
INTERESTING	100	70	83	56	50	33
NOT REPORTED	-	12	-	-	-	-
MY JOB UTILIZES MY TALENTS:						
NOT AT ALL OR VERY LITTLE	-	6	28	38	50	33
FAIRLY WELL OR BETTER	100	94	72	62	50	67
MY JOB UTILIZES MY TRAINING:						
NOT AT ALL OR VERY LITTLE	-	12	22	44	60	33
FAIRLY WELL OR BETTER	100	88	67	56	40	67
I PLAN TO REENLIST:						
NO OR PROBABLY NO	25	35	28	19	50	33
YES OR PROBABLY YES	75	65	72	81	50	67

TABLE 7

REPRESENTATIVE TASKS PERFORMED BY TRAINING SYSTEMS DESIGNERS
CATEGORIZED BY STEPS OF THE ISD MODEL (AFM 50-2, AFP 50-58)

STEP 1	ANALYZING SYSTEMS REQUIREMENTS	
	DEVELOP PLANS FOR DESIGNING INSTRUCTIONAL SYSTEMS	100
	INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH SYSTEMS REQUIREMENTS	94
	INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH COURSE REQUIREMENTS	94
	DEVELOP LIST OF KNOWLEDGES OR TASKS FOR INSTRUCTIONAL STANDARDS	71
	EXTRACT SYSTEM OR JOB DATA FROM AIR FORCE REGULATIONS, MANUALS OR PAMPHLETS	76
STEP 2	DEFINING EDUCATION OR TRAINING REQUIREMENTS	
	ANALYZE INTERVIEW RESULTS TO DETERMINE CONSEQUENCES OF INADEQUATE PERFORMANCE	71
	ANALYZE INTERVIEW RESULTS TO DETERMINE CASE OR DIFFICULTY OF LEARNING TASKS OR KNOWLEDGES	71
	ANALYZE INTERVIEW RESULTS TO DETERMINE FREQUENCIES OF TASK PERFORMANCE	59
	ANALYZE COMPLETED QUESTIONNAIRES TO DETERMINE CASE OR DIFFICULTY OF LEARNING TASKS OR KNOWLEDGES	59
STEP 3	DEVELOPING OBJECTIVES AND TESTS	
	DEVELOP CRITERION OBJECTIVES	100
	DEVELOP CRITERION SUBOBJECTIVES	94
	ASSIGN LEVELS OF LEARNING	41
	CONVERT ANALYSIS INFORMATION TO OVERT BEHAVIORS	35
	DEVELOP PRETESTS FOR DETERMINING INDIVIDUAL STUDENT KNOWLEDGES OR SKILLS	35
STEP 4	PLANNING, DEVELOPING, AND VALIDATING INSTRUCTIONS	
	DETERMINE CORRELATIONS OF CRITERION OBJECTIVES TO INSTRUCTIONAL DESIGNS	100
	DETERMINE CORRELATIONS OF CRITERION OBJECTIVES TO INSTRUCTIONAL MEDIA	94
	DETERMINE EQUIPMENT NEEDED TO SUPPORT TRAINING	94
	DETERMINE INSTRUCTIONAL SEQUENCES	94
	DEVELOP LESSON PLANS	76
STEP 5	CONDUCTING AND EVALUATING INSTRUCTION	
	EVALUATE EFFECTIVENESS OF INSTRUCTIONAL DESIGNS	100
	EVALUATE EFFECTIVENESS OF INSTRUCTIONAL MEDIA	100
	EVALUATE EFFECTIVENESS OF INSTRUCTION SUPPORT EQUIPMENT	94
	COMPILE TRAINING STATISTICS	76
	CONDUCT FIELD EVALUATIONS	47

TABLE 8

SIGNIFICANT DIFFERENCES IN TASKS PERFORMED BY
TRAINING SYSTEMS DESIGNERS AND TRAINING MATERIALS DEVELOPERS

TASK	PERCENT PERFORMING: TRAINING SYSTEMS DESIGNERS	PERCENT PERFORMING: TRAINING MATERIALS DEVELOPERS	DIFFERENCE
EVALUATE EFFECTIVENESS OF SUPPORT EQUIPMENT	94	11	+83
DEVELOP INSTRUCTOR GUIDES	88	16	+77
ANALYZE INTERVIEW RESULTS TO DETERMINE CONSEQUENCES OF INADEQUATE PERFORMANCE	71	6	+65
EVALUATE EFFECTIVENESS OF COURSE CONTROL DOCUMENTS	71	6	+65
DEVELOP COURSE CHARTS	65	0	+65
ANALYZE DATA FROM INDIVIDUAL, SMALL GROUP, OPERATIONAL TRYOUTS FOR VALIDATION OF INSTRUCTIONAL SYSTEMS	100	39	+61
ANALYZE RESULTS OF INTERNAL EVALUATIONS OF INSTRUCTION	81	17	+65
DETERMINE FACILITIES NEEDED TO SUPPORT INSTRUCTION	82	22	+60
DEVELOP PLANS OF INSTRUCTION	82	33	+49
EVALUATE TRAINING METHODS	82	33	+49
PREPARE BEHAVIORAL ANALYSIS	65	17	+48
EXTRACT SYSTEM OR JOB DATA FROM AIR FORCE TECHNICAL PUBLICATIONS	65	22	+43
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL DESIGNS	100	56	+44
DEVELOP LESSON PLANS	76	33	+43
CONDUCT SMALL GROUP TRYOUTS FOR VALIDATION OF INSTRUCTIONAL SYSTEMS	65	22	+43

ANALYSIS OF DAFSC GROUPS

Another integral part of each Occupational Survey Report is an analysis of differences in tasks performed by individuals assigned to the various skill levels within the career ladder. This analysis provides data for evaluation of career ladder documents, such as AFR 39-1 Specialty Descriptions and the Specialty Training Standard (STS) as well as providing an insight into the various kinds of assignments encountered by personnel at each skill level. Since 9-skill level personnel supervise Education Specialists (751X0) and Training Specialists (751X2) as well as Instructional Systems Design personnel (751X3), discussion of the 9-skill level has been included in the common report (AFPT 90-751-408 Vol. I).

As discussed in the job structure analysis, the 751X3 career ladder is very heterogeneous in terms of jobs performed. The difference in the scope and type of jobs performed by ISD personnel was so diverse that only 67 percent of the 101 survey respondents were included in the job clusters reported in the job structure analysis. The remainder performed jobs that were so different that they could not be grouped into any meaningful job grouping.

This same heterogeneity found in jobs performed is also apparent in the analysis of DAFSC groups. Only seven tasks were performed by 50 percent or more of the 3-skill level personnel (see Table 9) and only 16 tasks were common to 50 percent or more of the 7-skill level personnel (see Table 10). Many of the tasks which are performed by higher percentages of the 7-skill level personnel are also those which are most characteristic of the 3-skill level.

The primary differences between 3- and 7-skill level jobs was in the scope of the tasks performed by 7-skill level personnel as compared to those performed by 3-skill level incumbents. Due to the heterogeneity of tasks performed, very few tasks were performed by a majority of the members of either skill level. Therefore, to categorize tasks as typical of the 7-skill level or of the 3-skill level would be misleading, since there does not seem to be a typical set of tasks which are assigned to personnel of either skill level. Rather, in this ladder, it is more reasonable to differentiate the two skill level jobs on the basis of the number of tasks performed and the extent of supervisory or managerial functions performed. Typically the average 3-skill level individual performs a small number of tasks, some of which may be identical to those performed by 7-skill level personnel. On the average, however, the 3-skill level job is much more limited in scope than the 7-skill level. At the 7-skill level, the average number of tasks performed increases considerably and, in addition to performing a variety of technical tasks, 35 to 40 percent also perform a number of supervisory and management tasks that are performed by relatively few of the 3-skill level personnel. Table 11 lists those tasks which best differentiate between the two DAFSC groups.

TABLE 9

TASKS PERFORMED BY 50 PERCENT OR MORE OF 75133 PERSONNEL

TASK	PERCENT PERFORMING
DEVELOP CRITERION SUBOBJECTIVES	55
DEVELOP PLANS FOR DESIGNING INSTRUCTION SYSTEMS	55
EVALUATE TRAINING AIDS, SUCH AS AUDIOVISUALS OR GRAPHICS	50
DEVELOP CRITERION OBJECTIVES	50
DEVELOP SLIDETAPE INSTRUCTIONAL PRESENTATIONS	50
DEVELOP SCRIPTS	50
DEVELOP STORY BOARDS	50

TABLE 10

TASKS PERFORMED BY 50 PERCENT OR MORE OF 75173 PERSONNEL

TASKS	PERCENT PERFORMING
DRAFT CORRESPONDENCE	70
*EVALUATE TRAINING AIDS, SUCH AS AUDIOVISUALS OR GRAPHICS	66
*DEVELOP CRITERION OBJECTIVES	63
EVALUATE COURSE OUTLINES OR LESSON PLANS	62
*DEVELOP CRITERION SUBOBJECTIVES	61
*DEVELOP SLIDETAPE INSTRUCTIONAL PRESENTATIONS	59
*DEVELOP SCRIPTS	58
*DEVELOP PLANS FOR DESIGNING INSTRUCTION SYSTEMS	58
PERFORM INSTRUCTIONAL EDIT OF WRITTEN, AURAL, OR GRAPHIC MATERIALS	57
DEVELOP PLANS OR PRODEDURES FOR EVALUATING EFFECTIVENESS OF INSTRUCTIONAL SYSTEMS	57
DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	54
INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH REQUIREMENTS	52
EVALUATE TRAINING PROGRAMS	52
EVALUATE TRAINING METHODS	52
DETERMINE CORRELATIONS OF CRITERION OBJECTIVES TO INSTRUCTIONAL DESIGNS	52
DETERMINE WORK PRIORITIES	51
*DEVELOP STORYBOARDS	44

* THESE TASKS ARE ALSO PERFORMED BY 50 PERCENT OR MORE OF 75133 PERSONNEL

TABLE 11

TASKS BEST DIFFERENTIATING BETWEEN 3- AND 7- SKILL LEVEL
(PERCENT MEMBERS PERFORMING)

TASKS	DAFSC 75133	DAFSC 75173	DIFFERENCE
EVALUATE TRAINING METHODS	9	52	-43
DETERMINE CORRELATIONS OF CRITERION OBJECTIVES TO INSTRUCTIONAL DESIGNS	14	52	-38
DETERMINE CORRELATIONS OF BEHAVIORAL OBJECTIVES TO INSTRUCTIONAL METHODS	9	47	-38
DETERMINE WORK PRIORITIES	14	51	-37
ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	5	41	-36
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL METHODS	14	49	-35
ANALYZE RESULTS OF INTERNAL EVALUATION OF INSTRUCTION	0	35	-35
DEVELOP DIRECTIVES FOR INSTRUCTIONAL SYSTEMS DEVELOPMENT OR OPERATION	9	44	-35
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL DESIGNS	9	44	-35
EVALUATE ADEQUACY OF CLASSROOMS OR BRIEFING ROOMS	9	43	-34

COMPARISON OF SURVEY DATA TO AFR 39-1 SPECIALTY DESCRIPTIONS

Tasks performed by 751X3 personnel have been compared to the broad functions as described in the AFR 39-1 Specialty Description for the Instructional Systems Technician, AFSCs 75113, 75133, and 75173, dated 30 April 1980. Overall, the specialty description gives an accurate general overview of the jobs performed by personnel assigned to this career ladder.

However, there were some problems in terms of personnel utilization and the appropriateness of the qualifications for personnel assigned to the 751X3 ladder. These issues will be discussed in more detail in the DISCUSSION AND IMPLICATIONS section of this report.

ANALYSIS OF TIME IN CAREER FIELD (TICF) GROUPS

In order to assess the normal pattern of change in jobs as a function of experience in the specialty, it is common practice to analyze differences in tasks performed by personnel at various points of progression in the ladder. Since this career ladder is a lateral input specialty, personnel transfer into the ladder with varying amounts of Air Force experience. For example, personnel who have been in the career field four years or less (1-48 month TICF group) have an average of 145 months total active federal military service, but only 24 months average time in this career ladder. In fact, all personnel in this ladder average only 42 months experience in Instructional Systems Development, with almost 20 percent having less than one year experience.

As discussed in other sections of this report, jobs performed by members of this ladder are quite heterogeneous. Personnel in the 1-48 month TICF group performed an average of 59 tasks; however, only nine of these tasks were common to 50 percent or more of the group (see Table 12). Personnel in the 49-96 months TICF group performed an average of 88 tasks, with 32 tasks performed by 50 percent or more of the group (see Table 13). Members of both the 1-48 and 49-96 months TICF groups are primarily involved in the technical functions of instructional systems development, with the more experienced personnel devoting slightly more of their time to performance of organization and planning and inspection and evaluation tasks.

Job Satisfaction

Job satisfaction data for TICF groups were reviewed to determine the effect of experience in the ladder on the perceptions of incumbents on such factors as job interest, utilization of talents and training, and reenlistment intentions. These data are presented in Table 14. Note that data are presented for respondents with 1-24 months and 25-48 months TICF instead of just a 1-48 months TICF group in order to illustrate the considerable drop in job satisfaction between the 1-24 month TICF and the 25-48 month TICF groups. The data show that individuals who transfer into the Instructional Systems development career ladder find their work interesting and feel that their talents and training are relatively well utilized during their first few months on the job. After this initial training period, however, job interest and feelings of good utilization of talents and training decrease considerably. This trend implies that many who remain in this ladder over two years become disenchanted with their job, find it less interesting, and feel that their talents and training are utilized little or not at all.

TABLE 12

TASKS PERFORMED BY 50 PERCENT OR MORE OF 1-48 MONTHS TICF PERSONNEL

TASKS	PERCENT PERFORMING
DEVELOP PLANS FOR DESIGNING INSTRUCTIONAL SYSTEMS	62
DEVELOP SLIDETAPES INSTRUCTIONAL PRESENTATIONS	59
DEVELOP SCRIPTS	59
DEVELOP CRITERION OBJECTIVES	59
DEVELOP CRITERION SUBOBJECTIVES	59
EVALUATE TRAINING AIDS, SUCN AS AUDIOVISUALS OR GRAPHICS	58
DRAFT CORRESPONDENCE	55
PERFORM INSTRUCTIONAL EDIT OF WRITTEN, AURAL, OR GRAPHIC MATERIALS	53
EVALUATE COURSE OUTLINES OR LESSON PLANS	51

TABLE 13

TASKS PERFORMED BY 50 PERCENT OR MORE OF THE 49-96 MONTHS TICF PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING
B36	DRAFT CORRESPONDENCE	76
C72	EVALUATE COURSE OUTLINES OR LESSON PLANS	72
K333	DEVELOP CRITERION OBJECTIVES	68
B29	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	68
C93	EVALUATE TRAINING AIDS, SUCH AS AUDIOVISUALS OR GRAPHICS	68
C95	EVALUATE TRAINING METHODS	68
K334	DEVELOP CRITERION SUBOBJECTIVES	64
C96	EVALUATE TRAINING PROGRAMS	60
C97	EVALUATE TRAINING TECHNIQUES	60
A14	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	60
B28	DEVELOP DIRECTIVES FOR INSTUCTIONAL SYSTEM DEVELOPMENT OR OPERATION	60
C92	EVALUATE TESTS	60
K355	DEVELOP SCRIPTS	56
K356	DEVELOP SLIDETAPE INSTRUCTIONAL PRESENTATIONS	56
K413	INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH COURSE REQUIREMENTS	56
K264	ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL MEDIA	56
K265	ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL METHODS	56
K263	ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL DESIGNS	56
A9	DEVELOP PLANS OR PROCEDURES FOR EVALUATING EFFECTIVENESS OF INSTRUCTIONAL SYSTEMS	56
K412	INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH SYSTEM REQUIREMENTS	56
K320	DETERMINE INSTRUCTIONAL SEQUENCES	56
C66	EVALUATE ADEQUACY OF CLASSROOMS OR BRIEFING ROOMS	56
K317	DETERMINE CORRELATIONS OF CRITERION OBJECTIVES TO INSTRUCTIONAL MEDIA	56
K321	DETERMINE INSTRUCTIONAL TIMES	56
K357	DEVELOP STORYBOARDS	52
K366	DEVELOP WRITTEN TESTS TO MEASURE STUDENTS ATTAINMENT OF KNOWLEDGE	52
A8	DEVELOP PLANS FOR DESIGNING INSTRUCTIONAL SYSTEMS	52
K375	EVALUATE EFFECTIVENESS OF INSTRUCTIONAL MEDIA	52
K314	DETERMINE CORRELATIONS OF CRITERION OBJECTIVES TO INSTRUCTIONAL DESIGNS	52
K376	EVALUATE EFFECTIVENESS OF INSTRUCTIONAL METHODS	52
K322	DETERMINE PERSONNEL NEEDED TO CONDUCT INSTRUCTION	52
K318	DETERMINE EQUIPMENT NEEDED TO SUPPORT INSTRUCTION	52

TABLE 14

JOB SATISFACTION DATA FOR TICF GROUPS
(PERCENT MEMBERS RESPONDING)

	1-24 MONTHS TICF (N=27)	25-48 MONTHS TICF (N=44)	49-96 MONTHS TICF (N=25)
I FIND MY JOB:			
NO RESPONSE	0	5	4
DULL	7	32	20
SO-SO	26	9	20
INTERESTING	67	54	56
MY JOB UTILIZES MY TALENTS:			
NO RESPONSE	0	0	0
NOT AT ALL TO VERY LITTLE	26	41	44
FAIRLY WELL OR BETTER	74	59	56
MY JOB UTILIZES MY TRAINING:			
NO RESPONSE	4	2	0
NOT AT ALL TO VERY LITTLE	20	43	40
FAIRLY WELL OR BETTER	66	55	60
I PLAN TO REENLIST:			
NO RESPONSE	4	2	0
NO OR PROBABLY NO	22	27	48
YES OR PROBABLY YES	74	71	52

COMPARISON OF CONUS VERSUS OVERSEAS GROUPS

Although only 11 percent of all 7-skill level personnel are assigned overseas, a comparison was made of the tasks performed by 7-skill level respondents stationed within the CONUS and those stationed overseas. Overall, no major differences were noted between the two groups. While some minor differences were noted, both groups were concerned with instructional systems design of training. Table 15 lists those tasks having the largest differences in percent members performing.

TABLE 15

TASKS BEST DIFFERENTIATING BETWEEN 7-SKILL LEVEL PERSONNEL IN CONUS AND OVERSEAS

TASKS		PERCENT MEMBERS PERFORMING DAFSC 75173 CONUS (N=69)	DAFSC 75173 OVERSEAS (N=9)	DIFFERENCE
A5	DETERMINE WORK PRIORITIES	55	11	+44
K255	ANALYZE DATA FROM INDIVIDUAL, SMALL GROUP, OR OPERATIONAL TRYOUTS FOR VALIDATION OF INSTRUCTIONAL SYSTEMS	42	0	+42
K271	ANALYZE RESULTS OF INTERNAL EVALUATIONS OF INSTRUCTION	39	0	+39
K272	ANALYZE STUDENT MEASUREMENT DATA	32	0	+32
C62	ADMINISTER COURSE CRITIQUES	42	11	+31
K375	EVALUATE EFFECTIVENESS OF INSTRUCTIONAL MEDIA	52	22	+30
K376	EVALUATE EFFECTIVENESS OF INSTRUCTIONAL METHODS	52	22	+30
A18	PLAN BRIEFINGS	41	11	+30
A8	DEVELOP PLANS FOR DESIGNING INSTRUCTIONAL SYSTEMS	62	33	+29
K412	INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH SYSTEM REQUIREMENTS	51	22	+29
C75	EVALUATE INSPECTION REPORTS OR PROCEDURES	16	44	-28
K265	ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL METHODS	45	67	-22
K459	PREPARE AUDIOVISUAL MATERIALS REQUEST (RAVL) FORMS (AF FORM 253)	12	33	-21
K264	ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL MEDIA	46	67	-21
K419	MAINTAIN CLASS ATTENDANCE RECORDS	15	33	-18
B61	SUPERVISE TRAINING TECHNICIANS (AFSC 75172)	4	22	-18
C73	EVALUATE GRADING PRACTICES	16	33	-17

MAJCOM COMPARISONS

A review and analysis of tasks performed and background information reported by 7-skill level personnel assigned to the four major commands who are primary users of 75173 personnel has been accomplished to determine any significant differences in utilization. Table 16 lists representative tasks from each of the five major steps of the ISD model and the percent members within the various commands performing these tasks. Table 17 lists background characteristics of command groups.

SAC personnel are considerably more involved in the full scope of ISD than members of other groups. It should be noted, however, that the members of this group have considerably more experience in the career field than the other command group members. In the other commands, no more than 40 percent performed any of the tasks representative of step 1, (Analyzing Systems Requirements). In TAC, over 50 percent of the respondents performed one or more of the tasks representative of each of the other four steps of the model. ATC personnel had the lowest percent members performing tasks in each of the ISD steps, indicating that a majority of these personnel specialize in various aspects of ISD. Few ATC personnel perform the full scope of ISD. The MAC group was quite similar to the ATC group although a slightly higher percentage appeared to be involved in the full scope of ISD.

TABLE 16

REPRESENTATIVE TASKS PERFORMED BY 75173 PERSONNEL BY COMMAND
(PERCENT PERFORMING)

TASKS		SAC	TAC	ATC	MAC
ANALYZING SYSTEMS REQUIREMENTS					
K388	EXTRACT SYSTEM OR JOB DATA FROM AIR FORCE REGULATIONS, MANUALS, OR PAMPHLETS	67	25	35	33
K389	EXTRACT SYSTEM OR JOB DATA FROM AIR FORCE TECHNICAL PUBLICATIONS	50	29	15	33
K391	EXTRACT SYSTEM OR JOB DATA FROM COMMAND OR AGENCY PUBLICATIONS	50	18	20	40
K396	EXTRACT SYSTEM OR JOB DATA FROM JOB PROFICIENCY GUIDES	33	18	20	20
K448	OBSERVE TASK PERFORMANCE	50	21	25	33
K400	EXTRACT SYSTEM OR JOB DATA FROM USAF OCCUPATIONAL SURVEY REPORTS	17	4	30	13
DEFINING EDUCATIONAL OR TRAINING REQUIREMENTS					
K257	ANALYZE INTERVIEW RESULTS TO DETERMINE EASE OR DIFFICULTY OF LEARNING TASKS OR KNOWLEDGES	83	32	5	13
K324	DETERMINE QUALIFICATIONS OF TARGET POPULATION	50	43	20	53
K345	DEVELOP LISTS OF KNOWLEDGES OR TASKS FOR INSTRUCTIONAL STANDARDS	50	43	20	53
K412	INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH SYSTEM REQUIREMENTS	67	57	45	53
K413	INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH COURSE REQUIREMENTS	67	68	40	53
DEVELOPING OBJECTIVES AND TESTS					
K333	DEVELOP CRITERION OBJECTIVES	83	75	50	53
K334	DEVELOP CRITERION SUBOBJECTIVES	83	71	45	60
K347	DEVELOP FILM INSTRUCTIONAL PRESENTATIONS	67	32	30	40
K349	DEVELOP PRETESTS FOR DETERMINING INDIVIDUAL STUDENT KNOWLEDGES OR SKILLS	67	18	10	07
K366	DEVELOP WRITTEN TESTS TO MEASURE STUDENT ATTAINMENT OF KNOWLEDGES	50	32	35	60

TABLE 16 (CONTINUED)

REPRESENTATIVE TASKS PERFORMED BY 75173 PERSONNEL BY COMMAND
(PERCENT PERFORMING)

TASKS		SAC	TAC	ATC	MAC
PLANNING, DEVELOPING AND VALIDATING INSTRUCTION					
K263	ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL DESIGNS	83	54	45	33
K264	ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL MEDIA	83	61	35	27
K320	DETERMINE INSTRUCTIONAL SEQUENCES	67	61	40	47
K327	DEVELOP ADMINISTRATIVE TOOLS FOR USE IN VALIDATING INSTRUCTIONAL SYSTEMS	67	32	30	40
K329	DEVELOP AUDIO PRESENTATIONS	67	57	10	40
K347	DEVELOP PERFORMANCE TESTS TO MEASURE STUDENT ATTAINMENT OF CRITERION OBJECTIVES	67	32	30	40
CONDUCTING AND EVALUATING INSTRUCTION					
K298	CONDUCT INTERNAL EVALUATIONS OF INSTRUCTIONAL SYSTEMS	83	36	35	33
K374	EVALUATE EFFECTIVENESS OF INSTRUCTIONAL DESIGNS	67	54	40	40
K375	EVALUATE EFFECTIVENESS OF INSTRUCTIONAL MEDIA	67	61	30	60
K376	EVALUATE EFFECTIVENESS OF INSTRUCTIONAL METHODS	67	61	40	53
K271	ANALYZE RESULTS OF INTERNAL EVALUATIONS OF INSTRUCTIONAL SYSTEMS	50	36	55	20

TABLE 17

BACKGROUND CHARACTERISTICS OF 75173 COMMAND GROUPS

	SAC N=6	TAC N=28	ATC N=20	MAC N=15
AVERAGE NUMBER OF TASKS PERFORMED	95	82	79	62
AVERAGE MONTHS IN CAREER FIELD	73	45	50	48
AVERAGE PAYGRADE	6.3	5.8	6.0	6.4
JOB TITLES				
TRAINING SCHEDULER	0%	9%	9%	13%
INSTRUCTIONAL SYSTEMS DESIGNER	33%	46%	35%	20%
INSTRUCTIONAL SYSTEMS MANAGER	33%	32%	25%	27%
CURRICULUM SPECIALIST	17%	4%	20%	0%
TECHNICAL WRITER	0%	0%	0%	13%
OTHER - OR NO RESPONSE	17%	18%	20%	27%

TASK DIFFICULTY

The relative difficulty of each task in the inventory was assessed through ratings by 34 experienced 7-skill level Instructional System Technicians. These ratings were processed to produce an ordered listing of all tasks in terms of their relative difficulty and were standardized to have an average difficulty of 5.0 (standard deviation equals 1.0). (For a more complete description of these ratings, see the Task Factor Administration section in the INTRODUCTION.)

Table 18 lists those tasks rated most difficult by the 34 7-skill level technicians who completed task difficulty booklets. Note that relatively high percentages of personnel in their first assignment in this ladder perform some of the more difficult tasks such as develop plans for designing instructional systems and for evaluating effectiveness of these systems; developing criterion objectives, plans of instructions, and slidetape presentations; and evaluating training programs. It is interesting to note that although these personnel have very little experience in the career ladder, many are immediately assigned to perform some of the most difficult tasks.

The least difficult ISD tasks are shown in Table 19. Very few of these tasks appeared to be more characteristic of personnel in the first job group than of all group members, indicating that little differentiation is made between tasks assigned to the new personnel in the career ladder and those assigned to personnel with more experience.

TABLE 18

REPRESENTATIVE TASKS RATED HIGH IN TASK DIFFICULTY PERFORMED BY 751X3 PERSONNEL

TASK		TASK* DIFFICULTY	PERCENT MEMBERS PERFORMING	
			TOTAL 751X3 (N=101)	1st JOB (1-24 TICF) (N=31)
A8	DEVELOP PLANS FOR DESIGNING INSTRUCTIONAL SYSTEMS	6.88	57	61
A17	EVALUATE NEW DEVELOPMENTS IN INSTRUCTIONAL SYSTEM TECHNOLOGY	6.74	27	23
A9	DEVELOP PLANS OR PROCEDURES FOR EVALUATING EFFECTIVENESS OF INSTRUCTIONAL SYSTEMS	6.70	51	48
H207	WRITE PROGRAMMED INSTRUCTION MATERIALS	6.68	37	29
K366	DEVELOP WRITTEN TESTS TO MEASURE STUDENTS ATTAINMENT OF KNOWLEDGES	6.66	36	19
K333	DEVELOP CRITERION OBJECTIVES	6.57	60	55
K348	DEVELOP PLANS OF INSTRUCTION	6.47	39	35
K347	DEVELOP PERFORMANCE TESTS TO MEASURE STUDENT ATTAINMENT OF CRITERION OBJECTIVES	6.41	32	23
K356	DEVELOP SLIDETAPE INSTRUCTIONAL PRESENTATIONS	6.41	57	52
C96	EVALUATE TRAINING PROGRAMS	6.37	47	39
K334	DEVELOP CRITERION SUBOBJECTIVES	6.29	59	58
K355	DEVELOP SCRIPTS	6.15	56	52

*AVERAGE TD = 5.0

TABLE 19

REPRESENTATIVE TASKS RATED LOW IN TASK DIFFICULTY PERFORMED BY 751X3 PERSONNEL

TASK		TASK DIFFICULTY	PERCENT MEMBERS PERFORMING	
			TOTAL 751X3 (N=101)	1st JOB (1-24 TICF) (N=31)
K236	ADMINISTRATIVE PRETESTS	4.16	14	10
K235	ADMINISTER PERFORMANCE TESTS	4.70	16	16
K491	SELECT PERSONNEL TO BE SURVEYED FOR ESTABLISHING SYSTEMS REQUIREMENTS	4.82	3	6
K369	ESTABLISH COURSE ENTRY PREREQUISITES	4.86	10	10
K319	DETERMINE FACILITIES NEEDED TO SUPPORT INSTUCTION	4.90	34	32
K473	PRESENT COURSE MATERIAL BY AUDIOVISUAL METHODS	4.93	33	32
K226	DETERMINE TRAINING REQUIREMENTS USING TASK PERFORMANCE CHECKLIST FORMS (AF FORM 689)	4.93	3	6
K448	OBSERVE TASK PERFORMANCE	4.94	23	13
B56	SUPERVISE INSTRUCTIONAL SYSTEMS SPECIALISTS (AFSC 75133)	4.94	12	6
K331	DEVELOP COURSE CHARTS	4.95	25	29

STS ANALYSIS

The 751X3 STS, dated September 1978, was reviewed against the survey data for 3- and 7-skill level personnel. Subject matter specialists at the Sheppard Technical Training Center assisted in the analysis by matching job inventory tasks with specific STS paragraphs. Overall, the STS appears to be quite adequate in terms of coverage. It is suggested, however, that subject matter specialists further review the STS for possible minor revisions using the task data provided by this report. Specific data will be provided to the training manager for this purpose.

ANALYSIS OF BACKGROUND INFORMATION

Each job inventory, in addition to including tasks performed, includes a number of items about the individuals completing the inventory. These background items are important in understanding the overall composition of career ladders in terms of such characteristics as grade, career field experience, education level, number of personnel supervised, job satisfaction, and training received.

As shown in Table 20, 46 percent of the personnel in this specialty are E-5 or below and 71 percent have 48 months or less experience in the ISD specialty. In addition, over half of these personnel have no more than one year of education past high school. Sixty-nine percent do not directly supervise any subordinates, indicating that the primary functions of personnel in this specialty are technical rather than supervisory.

As illustrated in Table 21, only 59 percent of the members of this specialty find their job interesting and their talents and training utilized fairly well or better. This is considerably lower than responses from other lateral career ladders surveyed in 1979, indicating that there may be problems in utilization of personnel in this specialty. Even so, the reenlistment intentions are relatively comparable to those for other specialties, due probably to the fact that many of these personnel have considerable time invested in the Air Force and plan to remain until eligible for retirement.

Since no formal training is required for entry into the 751X3 career ladder, it is interesting to look at what courses 751X3 personnel have taken since several are available. This information is presented in Table 22. Large percentages have attended course 3AIR75130-X, Instructional Systems Development, and course 3AZR75133, Instructional Systems Designer.

TABLE 20

BACKGROUND INFORMATION BY DAFSC GROUPS

	PERCENT MEMBERS RESPONDING				
	75133 AND 75173 COMBINED (N=101)	75133 (N=22)	75173 (N=79)	75173 CONUS (N=69)	75173 OVERSEAS (N=9)
GRADE:					
E-4	14	55	3	3	0
E-5	32	27	33	35	22
E-6	29	14	33	32	44
E-7, E-8	25	5	30	29	34
NOT REPORTED	0	0	1	1	0
CAREER FIELD EXPERIENCE:					
1-12 MONTHS	19	55	9	10	0
13-24 MONTHS	8	9	8	9	0
25-48 MONTHS	44	36	46	35	22
49+ MONTHS	29	0	37	46	78
EDUCATION LEVEL:					
12 YEARS	32	41	30	32	22
13 YEARS	19	18	19	19	22
14 YEARS	22	23	22	19	35
15 YEARS	14	18	13	15	0
16+ YEARS	13	0	16	15	22
NUMBER PERSONS SUPERVISED:					
NONE	69	96	62	62	67
1 OR 2	18	4	22	21	22
3-6	12	0	15	16	11
NOT REPORTED	1	0	1	1	0

TABLE 21

RELATIVE JOB SATISFACTION OF 751X3 RESPONDENTS

	PERCENT MEMBERS RESPONDING			
	75133 AND 75173 COMBINED	75133	75173	COMPARATIVE SAMPLE*
I FIND MY JOB:				
DULL	22	32	19	8
SO-SO	17	23	15	9
INTERESTING	59	45	62	82
MY JOB UTILIZES MY TALENTS:				
NOT AT ALL OR VERY LITTLE	37	50	33	15
FAIRLY WELL OR BETTER	63	50	67	84
MY JOB UTILIZED MY TRAINING:				
NOT AT ALL OR VERY LITTLE	38	45	35	16
FAIRLY WELL OR BETTER	59	50	62	83
REENLISTMENT INTENTIONS:				
NO OR PROBABLY NO	33	23	35	30
YES OR PROBABLY YES	65	77	62	69

*INCLUDES ALL LATERAL SPECIALTIES SURVEYED IN 1979; INCLUDES AFSC's 296X0, 661X0, 732X4, 751X3, 753X1, 912X0, 912X1/X2/X3/X4 (N=2310)

**NOTE: COLUMNS MAY NOT ADD UP TO 100% DUE TO "NO RESPONSE" CATEGORY

TABLE 22

ISD TRAINING COURSE ATTENDED

COURSE	75133 AND 75173 COMBINED	75133	75173
NO TRAINING COURSES COMPLETED	8%	23%	4%
INSTRUCTIONAL SYSTEMS DEVELOPMENT (3AIR75130-X)	46%	27%	51%
INSTRUCTIONAL SYSTEMS DESIGNER (3AZR75133)	46%	36%	48%
TEST AND MEASUREMENTS (3AIR75120-X)	38%	9%	46%
AUDIOVISUAL METHODS (3AZR75000)	22%	5%	27%
DEVELOPMENT OF LEARNING OBJECTIVES (3AIR75111-X)	21%	0%	27%
INSTRUCTIONAL SYSTEMS MATERIALS DEVELOPMENT (3AZR75160)	18%	5%	22%
DEVELOPMENT AND MANAGEMENT OF INSTRUCTIONAL SYSTEMS (3OZR7500-3)	13%	9%	14%
INSTRUCTIONAL SYSTEMS DEVELOPMENT (FTD) (4AIF75193-006)	10%	5%	11%
DEVELOPMENT AND MANAGEMENT OF INSTRUCTIONAL SYSTEMS (4OJF7500-3)	10%	9%	10%
APPLIED INSTRUCTIONAL SYSTEMS DEVELOPMENT (FTD) (4AIF75173-000)	5%	0%	6%
DESIGNING SELF-PACED INSTRUCTION (FTD) (4AIF75193-007)	3%	0%	4%

COMPARISON TO PREVIOUS SURVEY

The previous survey of this career ladder was completed in May 1979. Although the two surveys differed considerably in the survey instrument used and the method of analysis, there was still a great deal of similarity in the overall results.

Generally the same type of job structure was found in both surveys. Tasks rated as the most difficult in one study had similar ratings in the other. The same general heterogeneity of tasks performed, found in the previous survey, were identified in this survey. Also, as recognized in the 1979 survey, there is a major problem with what is done by 751X3 personnel versus what should be done.

One significant result of the current survey was the relatively low job satisfaction reported by respondents. Although not discussed in detail in the 1979 survey, job satisfaction at that time was also low, with only about two-thirds feeling that their job was interesting and that their talents and training were used fairly well or better.

It is obvious that the same problems that were present in the career ladder during the 1979 survey have not been resolved. In fact, there is some reason to believe that the appropriate utilization of 751X3 personnel is declining rather than improving.

ANALYSIS OF WRITE-IN COMMENTS

Respondents were invited to write in any comments relative to their job on a blank page provided in the inventory. Although a number of write-ins were received, only a few voiced dissatisfaction with their job or the career field. However, from discussions with a number of Instructional Systems Technicians and their supervisors, these comments reflect the general feeling of many personnel in this ladder. Typical comments are given below.

"Several times our shop has been told that we are neither wanted or needed. Also steps one, two, and sometimes three of the five ISD steps are already decided for us. ..... I feel wasted in this job and will reenlist only if I can get out of it. ..... Most of our "work" has nothing to do with ISD or its functions. We are standby typists ..... at everyone's beck and call. A totally demoralizing and unhappy arrangement." (SSgt from TAC)

"For the period 1 Oct 79 to 31 Dec 79, this office was required to maintain manhour accountability logs for all duty performed. Between the three 75173 personnel (one TSgt and two SSgts) we documented an average of 32 hours per week for the three of us combined ..... an average of 10½ hours per week ....." (TSgt from SAC)

"I believe the 751X3 career field should be consolidated with either the 751X2 or 751X0. As a 751X3 for two years and 6 months, I have done nothing beneficial for the Air Force or myself. No one really knows exactly how I am to be utilized. After attending the AZR75133 ISD Course at Sheppard AFB and talking to my classmates, I believe it is the same AF wide. ..... Most ISD types are writing slide/tape programs and are added baggage as usually there is a Subject Matter Specialist doing the exact same work. Possibly a consolidated AFSC would allow us to find a job on base worthwhile if there wasn't a real 751X3 job." (TSgt from SAC)

"Instructional systems reviser would come closer to describing what I do. We are mostly involved with updating and revising existing slide/tape programs." (Sgt from TAC)

"..... NCOIC of ISD Section-Training Wing - By management constraints, this ISD office is limited to consultations and advisement."
(MSgt from ATC)

DISCUSSION AND IMPLICATIONS

Analysis of the task data reveals a very heterogeneous utilization of personnel in this career ladder. In addition, the job satisfaction data shows that a relatively high percentage of these personnel find their job dull or so-so and feel their talents and training are used very little or not at all. Write-in comments from a few of the respondents highlight some of the problem areas in this ladder. In addition to these write-in comments, a number of contacts have been made with senior 751X3 personnel as well as with a number of personnel who are presently supervising or who have previously supervised ISD personnel at field and at staff level.

There was almost universal agreement among personnel contacted that the career field was floundering and that something should be done. Although many of the ISD technicians are well trained and are properly utilized in Instructional Systems Development, many are not. The majority are assigned to jobs that do not require the full scope of ISD (such as developing slidetape presentations or writing course materials). In some instances, personnel are assigned to jobs which were established to provide advice and guidance in the design and development of training materials but which are limited by management constraints, to only cursory review of training programs designed, with no actual impact on the training development program.

Although almost all personnel contacted agreed that ISD personnel were often not well utilized, the reasons for this varied. Primary reasons given for partial utilization or failure to use ISD resources included:

1. Retrainees from other career ladders must be given extensive training (OJT or formal training) before they can perform most of the functions of ISD.

2. Training managers often perceive that ISD personnel do not understand the subject matter sufficiently to take an active role in ISD of highly technical training courses. Therefore they rely primarily on subject matter specialists for training materials development functions. Consequently, ISD responsibility is normally retained by officers, airmen, or civilians who are trained or experienced in both the subject matter and ISD, while 751X3 personnel are often relegated to performing the more routine writing and clerical support functions.

3. Instructional Systems Design of training systems means different things to different individuals. Consequently, there are variations in application of ISD principles from job to job. This results in problems in training and in SKT testing.

In this study, as in the previous Occupational Survey Report, there was a lack of a clearly defined role or consistent utilization policy for 751X3 personnel. Some ISD personnel are used as learning center monitors, others as test writers, coordinators between developers and reproduction facilities, office clerks, or in similar jobs. In other places the ISD technician performs jobs ranging from slidetape training program writer to performing essentially

all steps of the ISD process. This study however, does not address the roles of officers, civilians, or other enlisted personnel in the total Air Force ISD program. Thus, the data in this report covers only a small part of the overall ISD effort. It is apparent, however, from results of this survey that the present utilization of enlisted ISD technicians should be examined. A utilization and training workshop is strongly recommended to determine the need for the 751X3 enlisted ISD specialty and the specific roles of the ISD technician in conjunction with other personnel who are involved in the ISD effort. Consideration of the problems should include questions of whether there should also be an officer specialty for ISD, the role of civilian personnel in ISD and whether ISD should be performed only by subject matter specialists. If, after resolution of the overall management and utilization questions, it is determined that the ISD technician is required, the issues of classification structure, selection prerequisites, and training requirements should be addressed.

Conclusions

If the 751X3 is to remain as a separate specialty (or SDI), it needs to be given a clearer definition and a more specific role. If ISD specialists are to be given the major responsibility for performing ISD for the Air Force, then they may need additional manpower and the resources to do the job; this may include the need for a separate ISD officer specialty. If the responsibility and resources are not available, then the ISD specialty should probably be deleted and their current tasks reassigned to other personnel (possibly to 751X2 Training personnel).

APPENDIX A

REPRESENTATIVE TASKS PERFORMED BY TRAINING PROGRAM DEVELOPMENT CHIEFS
(SPC302)

TASKS	PERCENT MEMBERS PERFORMING (N=4)
EVALUATE TRAINING PROGRAMS	100
PERFORM COMPOSITION EDIT OF WRITTEN, AURAL, OR GRAPHIC MATERIALS	100
PERFORM INSTRUCTIONAL EDIT OF WRITTEN, AURAL, OR GRAPHIC MATERIALS	100
EVALUATE TRAINING TECHNIQUES	100
EDIT TRAINING PUBLICATIONS	100
EVALUATE TRAINING AIDS, SUCH AS AUDIOVISUALS OR GRAPHICS	100
EVALUATE EFFECTIVENESS OF STUDENT MEASUREMENT OR TESTING PROGRAMS	100
DEVELOP PLANS OF INSTRUCTION	100
EVALUATE TESTS	100
EVALUATE TRAINING METHODS	100
EVALUATE COURSE OUTLINES OR LESSON PLANS	100
DEVELOP LESSON PLANS	100
DRAFT CORRESPONDENCE	100
COMPILE TRAINING STATISTICS	100
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL DESIGNS	100
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL MEDIA	100
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL METHODS	100
EVALUATE INSTRUCTIONAL STRATEGIES	100
DEVELOP CRITERION OBJECTIVES	100
DEVELOP CRITERION SUBOBJECTIVES	100
DEVELOP WRITTEN TESTS TO MEASURE STUDENT ATTAINMENT OF KNOWLEDGES	100
DEVELOP DIRECTIVES FOR INSTRUCTIONAL SYSTEM DEVELOPMENT OR OPERATION	100
DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	100
REVIEW TRAINING STATISTICS	100
DETERMINE INSTRUCTIONAL SEQUENCES	100
DETERMINE INSTRUCTIONAL TIMES	100
EVALUATE EFFECTIVENESS OF SUPPORT FACILITIES	100
DETERMINE REQUIREMENTS FOR TRAINING AIDS	100
CONDUCT OPERATIONAL TRYOUTS FOR VALIDATION OF INSTRUCTIONAL SYSTEMS	100
CONDUCT INTERNAL EVALUATIONS OF INSTRUCTIONAL SYSTEMS	100

REPRESENTATIVE TASKS PERFORMED BY TRAINING SYSTEMS DESIGNERS
(GRP441)

TASKS	PERCENT MEMBERS PERFORMING (N=7)
DEVELOP CRITERION OBJECTIVES	100
DETERMINE CORRELATIONS OF CRITERION OBJECTIVES TO INSTRUCTIONAL DESIGNS	100
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL DESIGNS	100
ANALYZE DATA FROM INDIVIDUAL, SMALL GROUP, OR OPERATIONAL TRYOUTS FOR VALIDATION OF INSTRUCTIONAL SYSTEMS	100
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL METHODS	100
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL MEDIA	100
DEVELOP PLANS FOR DESIGNING INSTRUCTIONAL SYSTEMS	100
DEVELOP CRITERION SUBOBJECTIVES	94
INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH SYSTEM REQUIREMENTS	94
INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH COURSE REQUIREMENTS	94
ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL METHODS	94
ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL MEDIA	94
ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL DESIGNS	94
DETERMINE CORRELATIONS OF CRITERION OBJECTIVES TO INSTRUCTIONAL MEDIA	94
DETERMINE INSTRUCTIONAL SEQUENCES	94
DETERMINE EQUIPMENT NEEDED TO SUPPORT INSTRUCTION	94
DEVELOP PLANS OR PROCEDURES FOR EVALUATING EFFECTIVENESS OF INSTRUCTIONAL SYSTEMS	94
PERFORM INSTRUCTIONAL EDIT OF WRITTEN, AURAL, OR GRAPHIC MATERIALS	88
DETERMINE CORRELATIONS OF BEHAVIORAL OBJECTIVES TO INSTRUCTIONAL METHODS	88
EVALUATE COURSE OUTLINES OR LESSON PLANS	88
DEVELOP INSTRUCTOR GUIDES	88
DETERMINE INSTRUCTIONAL TIMES	88
DEVELOP PLANS OF INSTRUCTION	82
DEVELOP SLIDETAPE INSTRUCTIONAL PRESENTATIONS	82
DRAFT CORRESPONDENCE	82
DEVELOP SCRIPTS	82
DETERMINE REQUIREMENTS FOR TRAINING AIDS	82
ANALYZE RESULTS OF INTERNAL EVALUATIONS OF INSTRUCTION SYSTEMS	82
EVALUATE TRAINING PROGRAMS	82

REPRESENTATIVE TASKS PERFORMED BY TRAINING MATERIALS DEVELOPERS
(GRP148)

TASKS	PERCENT MEMBERS PERFORMING (N=18)
DEVELOP CRITERION SUBOBJECTIVES	89
DEVELOP SLIDETAPE INSTRUCTIONAL PRESENTATIONS	83
DEVELOP SCRIPTS	83
DEVELOP CRITERION OBJECTIVES	78
ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL METHODS	78
ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL DESIGNS	78
DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	78
ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL MEDIA	72
WRITE PROGRAMMED INSTRUCTION MATERIALS	72
SELECT ILLUSTRATIONS FOR USE IN INSTRUCTIONAL MATERIALS	72
DETERMINE INSTRUCTIONAL SEQUENCES	72
INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH COURSE REQUIREMENTS	72
INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH SYSTEM REQUIREMENTS	72
DEVELOP PLANS FOR DESIGNING INSTRUCTIONAL SYSTEMS	72
DETERMINE CORRELATIONS OF CRITERION OBJECTIVES TO INSTRUCTIONAL MEDIA	72
DRAFT CORRESPONDENCE	72
DEVELOP STORYBOARDS	67
DETERMINE EQUIPMENT NEEDED TO SUPPORT INSTRUCTION	67
DETERMINE CORRELATIONS OF CRITERION OBJECTIVES TO INSTRUCTIONAL DESIGNS	67
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL MEDIA	67
DEVELOP PLANS OR PROCEDURES FOR EVALUATING EFFECTIVENESS OF INSTRUCTIONAL SYSTEMS	67
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL METHODS	67
EVALUATE TRAINING AIDS, SUCH AS AUDIOVISUALS OR GRAPHICS	61
DEVELOP DIRECTIVES FOR INSTRUCTIONAL SYSTEM DEVELOPMENT OR OPERATION	61
DETERMINE CORRELATIONS OF BEHAVIORAL OBJECTIVES TO INSTRUCTIONAL METHODS	61
EVALUATE COURSE OUTLINES OR LESSON PLANS	61
PREPARE REQUISITIONS FOR SUPPLIES OR EQUIPMENT	56
DEVELOP AUDIO PRESENTATIONS	56
EVALUATE EFFECTIVENESS OF INSTRUCTIONAL DESIGNS	56
DETERMINE WORK PRIORITIES	56

REPRESENTATIVE TASKS PERFORMED BY AUDIOVISUAL TRAINING SYSTEMS DEVELOPERS
(GRP139)

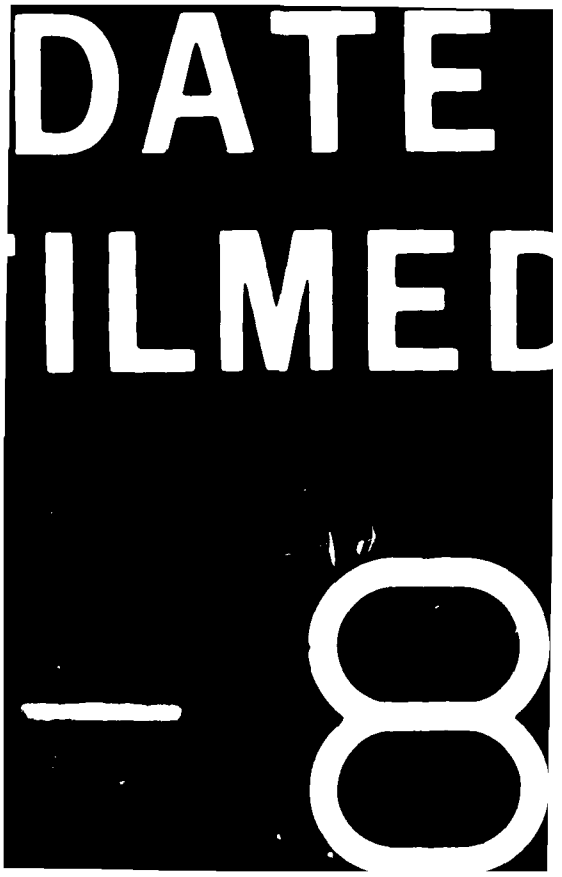
TASKS	PERCENT MEMBERS PERFORMING (N=16)
DEVELOP SLIDETAPE INSTRUCTIONAL PRESENTATIONS	100
DEVELOP SCRIPTS	100
DEVELOP CRITERION OBJECTIVES	88
EVALUATE TRAINING AIDS, SUCH AS AUDIOVISUALS OR GRAPHICS	81
DEVELOP CRITERION SUBOBJECTIVES	75
DEVELOP LESSON PLANS	75
DEVELOP AUDIO PRESENTATIONS	69
DEVELOP PLANS OF INSTRUCTION	69
PERFORM INSTRUCTIONAL EDIT OF WRITTEN, AURAL, OR GRAPHIC MATERIALS	69
EVALUATE COURSE OUTLINES OR LESSON PLANS	63
DEVELOP PLANS FOR DESIGNING INSTRUCTIONAL SYSTEMS	56
INTERVIEW SUBJECT MATTER SPECIALISTS TO ESTABLISH COURSE REQUIREMENTS	50
PERFORM TECHNICAL EDIT OF WRITTEN, AURAL, OR GRAPHIC MATERIALS	50
PERFORM OPERATIONAL CHECKS ON TRAINING EQUIPMENT	50
DEVELOP VISUAL AIDS, SUCH AS CHARTS OR TRANSPARENCIES	44
DEVELOP INSTRUCTOR GUIDES	44
DEVELOP STORYBOARDS	44
EVALUATE TRAINING PROGRAMS	44
DETERMINE EQUIPMENT NEEDED TO SUPPORT INSTRUCTION	44
PRESENT COURSE MATERIALS BY AUDIOVISUAL METHODS	38
DEVELOP LISTS OF SUBJECTS TO BE TAUGHT	38
ADMINISTER COURSE CRITIQUES	38
DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	38
DRAFT CORRESPONDENCE	38
DETERMINE REQUIREMENTS FOR TRAINING AIDS	38
DETERMINE INSTRUCTIONAL SEQUENCES	38
VALIDATE INSTRUCTIONAL MATERIALS	38
DEVELOP PLANS OR PROCEDURES FOR EVALUATING EFFECTIVENESS OF INSTRUCTIONAL SYSTEMS	38
DEVELOP LISTS OF KNOWLEDGES OR TASKS FOR INSTRUCTIONAL STANDARDS	31
PERFORM COMPOSITION EDIT OF WRITTEN, AURAL, OR GRAPHIC MATERIALS	31

REPRESENTATIVE TASKS PERFORMED BY SLIDETAPE INSTRUCTION DEVELOPERS
SPC306)

TASKS	PERCENT MEMBERS PERFORMING (N=10)
DEVELOP SLIDETAPE INSTRUCTIONAL PRESENTATIONS	70
DEVELOP STORYBOARDS	70
DEVELOP PLANS FOR DESIGNING INSTRUCTIONAL SYSTEMS	70
PERFORM INSTRUCTIONAL EDIT OF WRITTEN, AURAL, OR GRAPHIC MATERIALS	70
DEVELOP SCRIPTS	60
DEVELOP CRITERION OBJECTIVES	50
DEVELOP CRITERION SUBOBJECTIVES	50
ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL MEDIA	40
SELECT ILLUSTRATIONS FOR USE IN INSTRUCTIONAL MATERIALS	40
PERFORM COMPOSITION EDIT OF WRITTEN, AURAL, OR GRAPHIC MATERIALS	40
DEVELOP PLANS OR PROCEDURES FOR EVALUATING EFFECTIVENESS OF INSTRUCTIONAL SYSTEMS	40
DRAFT CORRESPONDENCE	40
EVALUATE TRAINING AIDS, SUCH AS AUDIOVISUALS OR GRAPHICS	40
ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL METHODS	40
DEVELOP VISUAL AIDS, SUCH AS CHARTS OR TRANSPARENCIES	30
EVALUATE NEW DEVELOPMENTS IN INSTRUCTIONAL SYSTEM TECHNOLOGY	30
DEVELOP WORK METHODS OR PROCEDURES	30
ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	30
PLAN WORK ASSIGNMENTS	30
DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	30
CONDUCT SMALL GROUP TRYOUTS FOR VALIDATION OF INSTRUCTIONAL SYSTEMS	30
VALIDATE INSTRUCTIONAL MATERIALS	30
CONDUCT INDIVIDUAL TRYOUTS FOR VALIDATION OF INSTRUCTIONAL SYSTEMS	30
EVALUATE TESTS	30
MAINTAIN INDIVIDUAL TRAINING STATUS RECORDS, SUCH AS ON-THE-JOB TRAINING RECORD FORMS (AF FORM 623)	30
EDIT TRAINING PUBLICATIONS	30
REWRITE INFORMATION FROM PUBLISHED SOURCE MATERIALS	30
ANALYZE OBJECTIVES TO DETERMINE INSTRUCTIONAL DESIGNS	30
EVALUATE SECURITY PROGRAMS	30
EVALUATE TRAINING PROGRAMS	30

REPRESENTATIVE TASKS PERFORMED BY NON-ISD TRAINING PROGRAM SUPERVISORS
(SPC301)

TASKS	PERCENT MEMBERS PERFORMING (N=3)
ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	100
ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	100
DRAFT CORRESPONDENCE	100
COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	100
PREPARE APRs	100
PREPARE REQUISITIONS FOR SUPPLIES OR EQUIPMENT	100
EVALUATE ADEQUACY OF CLASSROOMS OR BRIEFINGS ROOMS	100
ADMINISTER COURSE CRITIQUES	100
ADMINISTER WRITTEN TESTS	100
SUPERVISE MILITARY PERSONNEL OTHER THAN AFSC 751XX	67
COORDINATE TRAINING SCHEDULES AND REQUIREMENTS WITH ALL EFFECTED ACTIVITIES TO DETERMINE TRAINING PRIORITIES	67
DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT	67
PREPARE JOB DESCRIPTIONS	67
CONDUCT STAFF MEETINGS	67
INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	67
RECOMMENDED INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	67
INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	67
DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	67
WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	67
PLAN BRIEFINGS	67
EVALUATE COURSE OUTLINES OR LESSON PLANS	67
ASSIGN PERSONNEL TO DUTY POSITIONS	67
EVALUATE TRAINING PROGRAMS	67
DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	67
PLAN LAYOUT OF FACILITIES	67
DEVELOP ORGANIZATIONAL OR FUNCTIONAL CHARTS	67
EVALUATE TRAINING AIDS, SUCH AS AUDIOVISUALS OR GRAPHICS	67
EVALUATE INTERNAL OFFICER OJT PROGRAMS	67
REVIEW USAF PUBLICATIONS BULLETINS	67
ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	67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