ON-THE-JOB COMMUNICATION OF
AIR FORCE SYSTEMS MANAGERS

Charles R. Fenno
Professor of Technical Communication
AFIT/LSH
Technical Report - AFIT LSTR 1-82
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School of Systems and Logistics
Air Force Institute of Technology, WPAFB OH

Department of Communication and Humanities
AFIT/LSH, WPAFB OH 45433

November 1982

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Communication Skills Management Communication
Speech Skills Communication Curricula
Writing Skills

Communication Skills (Continued)
A questionnaire was sent to graduates of the Graduate Systems Management Program of the Air Force Institute of Technology (AFIT) to determine the quantity and types of speaking and writing required in their present jobs, and to solicit their recommendations about the content of AFIT communication courses. The officers were also asked to supply unclassified samples of on-the-job writing produced in their offices.

Seventy-three percent of the respondents consider oral communication to be either very or critically important to their jobs, and 92 percent place writing in these same categories. A large number of the respondents believe that AFIT should include speech and writing courses in its curricula (91 percent and 96 percent respectively). In their view, the goal of these courses should be a clear and direct communication style produced by efficient organization of material and analysis of audience.
Abstract

A questionnaire was sent to graduates of the Graduate Systems Management Program of the Air Force Institute of Technology (AFIT) to determine the quantity and types of speaking and writing required in their present jobs, and to solicit their recommendations about the content of AFIT communication courses. The officers were also asked to supply unclassified samples of on-the-job writing produced in their offices.

Seventy-three percent of the respondents consider oral communication to be either very or critically important to their jobs, and 92 percent place writing in these same categories. A large number of the respondents believe that AFIT should include speech and writing courses in its curricula (91 percent and 96 percent respectively). In their view, the goal of these courses should be a clear and direct communication style produced by efficient organization of material and analysis of audience.
I Introduction

As a center for Air Force graduate and professional continuing education, the Air Force Institute of Technology (AFIT) provides both theoretical and job-specific education for Department of Defense personnel. To carry out this task, AFIT monitors the needs of its sponsors and clients so that its programs can offer the best information in engineering and business to meet its students' unique responsibilities.

One of these needs, which the Air Force shares with every large organization, is effective communication among all levels of its structure. At AFIT, the Department of Communication and Humanities of the School of Systems and Logistics designs and supervises students' education in this important area. Those of us who teach in that department are therefore particularly interested in the communication needs of Air Force officers and civilians, and we solicit information from our graduates for curriculum planning.

The survey described in this report asked graduates of AFIT's Graduate Systems Management Program how important speaking and writing are in their current jobs, what kinds of oral and written communication they have to produce, and what role AFIT should play in educating others for similar jobs.

The results of this survey should be of interest to military and civilian educators who train Air Force officers, to the officers themselves--since career progression is often linked to communication skills--and to others concerned about the role of communication in large organizations.
II Procedure

The information reported here was collected by a mail survey conducted in March, 1982. The respondents were asked to fill out a short questionnaire and to return it together with five unclassified documents illustrating the types of writing produced in their current jobs.

Population Sampled

The survey packet was mailed to 171 Air Force officers who had graduated from the Graduate Systems Management (GSM) Program at AFIT between 1966 and 1979. The same population had been surveyed by random sample in a 1980-81 thesis project concerning the perceived utility of courses in the entire GSM curriculum.* In that study, the officers had rated speech and writing courses as among the most useful in their program. The present study asked them for more specific information on this subject.

Survey Packet

The survey packet mailed to each participant contained a letter of transmittal, a privacy statement and control letter in accordance with Air Force policies, the questionnaire, and a pre-addressed return envelope.

*The results of the previous research are reported in Speck, Ernest E. 1Lt., USAF. "Perceived Utility of the AFIT Graduate Systems Management Program." Unpublished master's thesis. LSSR 54-81, AFIT/LS, Wright-Patterson AFB OH, September 1981. ADA 109878.
The letters of transmittal were typed on word processing equipment so that names and addresses could be inserted individually, and each was individually signed. The letter of transmittal, privacy statement, and control letter are shown on pages 4-6.

Questionnaire

The questionnaire contained a brief demographic section about the officers, eight questions about oral communication, and six questions about written communication. Both the cover letter and the questionnaire invited the respondents to remain anonymous, and the questionnaire provided space for any general comments that they wanted to make. All questions required only check marks or single word responses.

Five of the eight speech questions and four of the six writing questions asked for information about the respondent's current job. The other five questions surveyed opinions about the content of speech and writing courses in the AFIT curriculum.

The respondents were invited to grant permission to quote their open-ended comments by signing a space at the end of the questionnaire. Respondents could request a copy of the results of the study by using a telephone number printed at the end of the questionnaire or by signing a space provided for that purpose. A copy of the questionnaire is reprinted on pages 7-10.
Dear

One of our important jobs at AFIT is to stay informed about the work our graduates are doing so that we can keep the Institute's courses in line with changing Air Force needs. We are writing to ask for your help in this essential activity.

You and other graduates of the Systems Management Program, responding to a thesis research project, recently told us that writing and speech skills are important in your job, and you recommended additional training in these areas. We hear you, and we want to meet this need.

You can give us valuable guidance in two ways. First, we request you answer the brief questionnaire attached to this letter. Your answers will tell us how much communication your job involves and how we can give the best training in necessary skills. Second, we ask that you supply photocopies of four or five unclassified documents that illustrate the kinds of writing your job requires. These might include staff reports, letters, background papers--whatever types of writing officers in your position have to prepare. This information will help us tailor the practical courses our graduates have recommended.

If you prefer, delete names and addresses from the documents. In any case, all questionnaires and photocopies will be treated as confidential, and no individuals or organizations will be identified in use of this material unless you give us specific written permission to quote.

Please submit your responses in the enclosed, pre-addressed envelope within 15 days of receipt of this package. Thank you for your help in this important task.

Yours truly,

CHARLES R. FENNO, PhD
Professor of Technical Writing
AFIT/LSH

ERNEST E. SPECK, Jr., Capt, USAF
ASD/YWB

1. The attached questionnaire was prepared by a research team at the Air Force Institute of Technology, Wright-Patterson AFB, Ohio. The purpose of the questionnaire is to obtain information concerning what types of speech and writing are required in the jobs of AFIT graduates, and to obtain recommendations from graduates concerning the content of new speech and writing courses at AFIT.

2. You are requested to provide an answer or comment for each question and to supply photocopies of four or five unclassified documents that illustrate the types of writing required by your job. Air University Survey Control Number 82-11 has been assigned to this questionnaire. Your participation in this research is voluntary.

3. All data you provide will be held confidential unless you give written permission to quote your responses. Your cooperation in this project will be appreciated and will be very beneficial to AFIT curriculum planners. Please return the completed questionnaire and photocopies in the attached envelope within fifteen days after receipt.

JEROME G. PEPHERS, JR.
Acting Dean
School of Systems and Logistics

4 Atch
1. Questionnaire
2. Researchers' Cover Letter
3. Return Envelope
4. Privacy Statement
In accordance with paragraph 8, AFR 12-35, the following information is provided as required by the Privacy Act of 1974:

a. Authority:

   (1) 5 U.S.C. 301, *Departmental Regulations*, and/or

   (2) 10 U.S.C. 8012, *Secretary of the Air Force, Powers, Duties, Delegation by Compensation*, and/or

   (3) EO 9397, 22 Nov 43, *Numbering System for Federal Accounts Relating to Individual Persons*, and/or

   (4) DOD Instruction 1100.13, 17 Apr 68, *Surveys of Department of Defense Personnel*, and/or


b. Principal purposes. The survey is being conducted to collect information to be used in research aimed at illuminating and providing inputs to the solution of problems of interest to the Air Force and/or DOD.

c. Routine Uses. The survey data will be converted to information for use in research of education related problems. Results of the research, based on the data provided, will be used by curriculum planners and may also be included in published articles, reports, or texts. Distribution of the results of the research, based on the survey data, whether in written form or presented orally, will be unlimited.

d. Participation in this survey is entirely voluntary.

e. No adverse action of any kind may be taken against any individual who elects not to participate in any or all of this survey.
[Survey Questionnaire]

NAME (optional) ___________________________________________

RANK (circle one): Lt Capt Maj LtCol Col

YEARS IN SERVICE: ________________________________

YEAR OF AFIT GRADUATION: ___________________________

LEVEL OF COMMAND OF CURRENT ASSIGNMENT (circle one):

  a. Squadron or below  f. Major Command
  b. Group            g. HQ Air Force
  c. Wing             h. AFSC Product Division (ESD, ASD, etc)
  d. Air Division     i. Other (please specify)
  e. Numbered Air Force

CURRENT DUTY AIR FORCE SPECIALTY CODE (AFSC)? ______

ABOUT SPEECH

1. About what percentage of your workweek is spent preparing briefings or speeches?
   ___________________________%

2. About what percentage of your workweek is spent delivering briefings or speeches?
   ___________________________%

3. About what percentage of your workweek is spent attending briefings or speeches given by others?
   ___________________________%

4. Average number of people at briefings and speeches you deliver? _____

5. How important is briefing/speech-related activity in your current position (check one)?
   _____ Minimal importance
   _____ Some importance
   _____ Very important
   _____ Critical importance

6. Did you take a speech or briefing course at AFIT (check one) _____Yes
   _____No
7. Should a speech/briefing course be included in AFIT curricula (check one)?
   ____ No
   ____ Yes, as an elective
   ____ Yes, as a requirement

8. Based on the needs of your current job, what topics should be emphasized in an AFIT speech or briefing course?

<table>
<thead>
<tr>
<th>Strong emphasis</th>
<th>Light emphasis</th>
<th>No emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locating material</td>
<td>Organizing material</td>
<td>Delivering material</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Producing visual aids</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analyzing audiences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Handling questions and discussions</td>
</tr>
<tr>
<td>Other _______________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ABOUT WRITING

1. About what percentage of your workweek is spent writing?
   ____________________________%

2. About what percentage of your workweek is spent dealing with writing done by others?
   ____________________________%

3. How important are writing skills in your present job (check one)?
   ____ Minimal importance
   ____ Some importance
   ____ Very important
   ____ Critical importance

4. Should a writing course be included in the AFIT curricula (check one)?
   ____ No
   ____ Yes, as an elective
   ____ Yes, as a requirement
5. Based on the needs of your current job, please indicate the emphasis an AFIT writing course should give to each of the following areas:

<table>
<thead>
<tr>
<th>Strong emphasis</th>
<th>Light emphasis</th>
<th>No emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar and syntax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanics (punctuation, abbreviations, capitalization, use of numbers, etc)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis of audience and purpose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finding published information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizing material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drafting and editing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AF communication formats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of illustrations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citation and documentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Style</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other ____________________________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Which of the following types of technical writing do you produce on the job?

<table>
<thead>
<tr>
<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical definitions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Descriptions of physical objects or mechanisms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Descriptions of processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abstracts or summaries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progress reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trip reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal articles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal research reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status/Trouble reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Letters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other ____________________________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Any comments about the role or content of speech and writing courses in AFIT curricula will be appreciated.

Please return the questionnaire and document samples in the enclosed envelope to Dr. Charles R. Fenno, AFIT/LSH, Wright-Patterson AFB, OH 45433.

If we may quote your comments, please sign here:

If you would like a copy of the completed study, please sign below and verify mailing address, or contact Dr. Fenno, AFIT/LSH (AUTOVON 785-6761).
III Results

Of the 171 questionnaires mailed, 30 were returned as undeliverable because of the addressee's reassignment or separation from the service. Of the remaining 141 officers who could have received the survey packets, 74 replied. A return rate of 53 percent is considered good for a study that requested samples of writing as well as answers to a questionnaire. Sixty-six officers sent writing samples with their responses, two others stated that all work in their offices was classified, and two others indicated that their current jobs required little or no writing. Seven respondents returned only the questionnaire without samples or explanation.

Responses to the survey questions will be presented in the following paragraphs. Since every officer did not answer every question, the number of responses (N) to each item will be given in parentheses.

Demographic Information

<table>
<thead>
<tr>
<th>Rank of respondent</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colonel</td>
<td></td>
</tr>
<tr>
<td>Lieutenant Colonel</td>
<td>19</td>
</tr>
<tr>
<td>Major</td>
<td>29</td>
</tr>
<tr>
<td>Captain</td>
<td>19</td>
</tr>
</tbody>
</table>

(N=74)

<table>
<thead>
<tr>
<th>Years in service</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Least years</td>
<td>8</td>
</tr>
<tr>
<td>Most years</td>
<td>26</td>
</tr>
<tr>
<td>Average</td>
<td>15</td>
</tr>
</tbody>
</table>

(N=73)
Three of the respondents reported that several of their service years had been in enlisted grades. The above data reflect total service time of all respondents.

Year of AFIT graduation: Earliest - 1966  
Latest - 1979  
(N=73)

Data from this question will be used in later long-term studies that correlate changes in AFIT's communication courses with responses to subsequent surveys.

Level of command of current assignment:

- Squadron or below - 7  
- Group - 4  
- Wing - 7  
- Air Division - 1  
- Numbered Air Force - 7  
- Major Command - 15  
- HQ Air Force - 9  
- AFSC Product Division - 8  
- Intermediate HQ - 3  
- Defense Communication Agency - 2  
- Center - 2  
- Base - 1  
- NATO - 1  
- SOA - 2  
- ALC - 1  
- Student, NWC - 1  
- Secretary AF - 2  

(N=73)

Current duty AFSC: [Untabulated for this report.  
Data will be incorporated in long-term studies of the communication requirements of different AFSCs.]  
(N=73)
About Speech

1. About what percentage of your workweek is spent preparing briefings or speeches?

   Smallest percentage  -  1%
   Largest percentage  -  50%
   Average percentage  -  9%

   (N=73)

2. About what percentage of your workweek is spent delivering briefings or speeches?

   Smallest percentage  -  1%
   Largest percentage  -  30%
   Average percentage  -  5%

   (N=73)

3. About what percentage of your workweek is spent attending briefings or speeches?

   Smallest percentage  -  1%
   Largest percentage  -  80%
   Average percentage  -  13%

   (N=73)

4. Average number of people at briefings and speeches you deliver?

   Smallest average  -  3
   Largest average  -  100
   Mean of averages  -  18

   (N=66)

Since some techniques of delivery are influenced by audience size, this question was intended to help AFIT instructors simulate customary audience size wherever possible. However, several respondents commented that they briefed
audiences of all sizes, underscoring the need for adaptability in briefing techniques.

5. How important is briefing/speech-related activity in your current position?

- Minimal importance - 2
- Some importance - 18
- Very important - 38
- Critical importance - 16

\[(N=74)\]

6. Did you take a speech or briefing course at AFIT?

- Yes - 5
- No - 69

\[(N=74)\]

7. Should a speech/briefing course be included in the AFIT curricula?

- No - 7
- Yes, as an elective - 37
- Yes, as a requirement - 30

\[(N=74)\]

Four respondents who recommended against including a speech/briefing course in the curricula stated that Professional Military Education (PME) courses offered adequate instruction; another recommended incorporating speech into all coursework. One respondent would require a combined speech-writing course. Two officers recommended a pass-fail grading system.

8. Based on the needs of your current job, what topics should be emphasized in an AFIT speech/briefing course?

- **Locating material**
  - Strong - 14
  - Light - 42
  - None - 16

\[(N=72)\]

14
### About Writing

1. About what percentage of your workweek is spent writing?

<table>
<thead>
<tr>
<th>Emphasis</th>
<th>Strong</th>
<th>Light</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizing material</td>
<td>65</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Delivering material</td>
<td>58</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>Producing visual aids</td>
<td>25</td>
<td>39</td>
<td>7</td>
</tr>
<tr>
<td>Analyzing audiences</td>
<td>35</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>Handling questions and discussions</td>
<td>43</td>
<td>28</td>
<td>2</td>
</tr>
</tbody>
</table>

The respondents added several topics to the list. Even though some of these topics may be subsumed under headings already in the list, it is significant that the officers felt strongly enough about them to write them in. Among those recommended by at least one respondent are brevity and timing in delivery, listening to audiences and drawing out new ideas during discussions, matching content to specific occasions, handling political implications of content, and maintaining intellectual honesty.

2. About what percentage of your workweek is spent dealing with writing done by others?

<table>
<thead>
<tr>
<th>Emphasis</th>
<th>Smallest percentage</th>
<th>Largest percentage</th>
<th>Average percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallest percentage</td>
<td>5%</td>
<td>60%</td>
<td>28%</td>
</tr>
<tr>
<td>Average percentage</td>
<td>(N=74)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smallest percentage</td>
<td>5%</td>
<td>90%</td>
<td>29%</td>
</tr>
<tr>
<td>Average percentage</td>
<td>(N=74)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. How important are writing skills in your present job?

<table>
<thead>
<tr>
<th>Importance Level</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal importance</td>
<td>1</td>
</tr>
<tr>
<td>Some importance</td>
<td>5</td>
</tr>
<tr>
<td>Very important</td>
<td>26</td>
</tr>
<tr>
<td>Critical importance</td>
<td>42</td>
</tr>
</tbody>
</table>

(N=74)

4. Should a writing course be in AFIT curricula?

<table>
<thead>
<tr>
<th>Option</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td>Yes, as an elective</td>
<td>24</td>
</tr>
<tr>
<td>Yes, as a requirement</td>
<td>47</td>
</tr>
</tbody>
</table>

(N=74)

One respondent would require a writing course only in connection with a speech/briefing course. One who did not favor a separate course would leave all writing instruction to PME courses.

5. Based on the needs of your current job, please indicate the emphasis an AFIT writing course should give to the following areas.

<table>
<thead>
<tr>
<th>Area</th>
<th>Strong</th>
<th>Light</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar and syntax</td>
<td>29</td>
<td>38</td>
<td>7</td>
</tr>
<tr>
<td>Mechanics</td>
<td>21</td>
<td>44</td>
<td>9</td>
</tr>
<tr>
<td>Audience analysis</td>
<td>50</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td>Finding published info.</td>
<td>11</td>
<td>43</td>
<td>20</td>
</tr>
<tr>
<td>Organizing material</td>
<td>64</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Drafting and editing</td>
<td>47</td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>Air Force formats</td>
<td>23</td>
<td>43</td>
<td>8</td>
</tr>
<tr>
<td>Using illustrations</td>
<td>11</td>
<td>45</td>
<td>18</td>
</tr>
<tr>
<td>Citation</td>
<td>6</td>
<td>39</td>
<td>25</td>
</tr>
</tbody>
</table>

(N=74)
Here again, respondents recommended other topics. Several had to do with developing a clear, concise style that avoided "governmentese" in order to get the writer's point across and obtain coordination on documents. Others mentioned the need for speed, since writers often have to produce on short notice. On the latter topic, one respondent recommended training on word processing equipment.

6. Which of the following types of technical writing do you produce on the job?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical definitions</td>
<td>10</td>
<td>36</td>
<td>27</td>
</tr>
<tr>
<td>Descriptions of physical objects and mechanisms</td>
<td>9</td>
<td>28</td>
<td>36</td>
</tr>
<tr>
<td>Descriptions of processes</td>
<td>19</td>
<td>30</td>
<td>22</td>
</tr>
<tr>
<td>Instructions</td>
<td>32</td>
<td>30</td>
<td>9</td>
</tr>
<tr>
<td>Abstracts or summaries</td>
<td>23</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>Proposals</td>
<td>24</td>
<td>27</td>
<td>22</td>
</tr>
<tr>
<td>Progress reports</td>
<td>39</td>
<td>29</td>
<td>6</td>
</tr>
<tr>
<td>Trip reports</td>
<td>28</td>
<td>35</td>
<td>9</td>
</tr>
<tr>
<td>Journal articles</td>
<td>1</td>
<td>21</td>
<td>52</td>
</tr>
<tr>
<td>Formal reports</td>
<td>3</td>
<td>15</td>
<td>56</td>
</tr>
<tr>
<td>Status/trouble reports</td>
<td>34</td>
<td>32</td>
<td>7</td>
</tr>
<tr>
<td>Letters</td>
<td>64</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Staff studies</td>
<td>24</td>
<td>34</td>
<td>16</td>
</tr>
</tbody>
</table>

Nineteen types were added as "other." Those types listed by at least three respondents are background papers, talking
papers, personnel performance reports, and messages.

The first three items on this question of the questionnaire may have been ambiguous to some of the respondents, although none of them commented on them. Technical definitions and descriptions of mechanisms and processes can occur as embedded parts of larger writing projects or as separate documents. Since the other items in the list usually appear as separate documents, some respondents may have interpreted the definition and description items in this same way, while others may have answered for either separate documents or embedded uses. It is safe to infer from the replies that these types are not often written as separate documents, but we cannot be certain that those who responded "never" do not use them as embedded elements in their writing.

Comments: Any comments about the role of speech and writing courses in the AFIT curricula will be appreciated.

Fifty-four of the seventy-four respondents added comments in this section. Thirty-five gave permission to quote, and excerpts from their comments are presented in the appendix to this report. Ideas contained in all of the comments, whether quoted or not, are incorporated into the following discussion of results.
IV Discussion

One point comes across emphatically in the responses of the Air Force officers who took part in this study. Communications skills—both oral and written—are essential to most of them in the performance of their jobs: 73 percent consider speaking skills to be either very or critically important, and 92 percent place writing skills in these same categories.

Between these two areas, writing is more important than speech in the jobs of most of the respondents: 68 percent find writing to be critically important, while 16 percent find speech critical. The respondents spend an average of 9 percent of their workdays preparing speeches or briefings and 5 percent of their time delivering them. In contrast, they spend an average of 28 percent of their workdays writing and 29 percent of their time handling writing done by others.

A large majority of the 74 respondents believe that AFIT should include speech and writing courses in its curricula (91 and 96 percent respectively). However, only 41 percent would make the speech course a requirement, while 64 percent of all respondents would require the writing course. The small number of officers who would not offer nor require the courses gave two reasons for their positions: good professional military education courses are available in these subjects, and the writing requirements of a graduate program are necessarily different from the requirements of much on-the-job writing. On the latter point, three of the respondents cautioned AFIT planners not to lose sight of their mission to provide graduate-level education in these areas.
Concerning the general goal of speech and writing courses, many officers emphasize the need to produce clear and concise communication, often on short notice. They also point out that much of their communication involves persuading rather than merely informing their audiences. One officer wrote of having to market his ideas, and others mention the need to obtain coordination or approval at the highest levels through well-organized and carefully supported presentations. In briefings, the respondents describe vigorous and sometimes hostile questioning; and in writing, they mention documents that are not approved because of weak organization or inadequate supporting evidence. Over and over, their recommendations on the survey are that communicators should keep their briefings and documents short and to the point, and should be prepared to defend their communications with evidence.

The officers' recommendations for the content of speech and writing courses are in line with these goals. Organizing material is judged to be most important in both speech and writing, followed by (in speech) delivering material, handling questions and discussions, and analyzing audiences. In writing, organizing material is followed by analyzing audiences, drafting the documents, and style as the areas recommended most frequently. In contrast, the officers place minimal emphasis on locating material or producing visual aids in speech courses; or on writing citations, locating material, and using illustrations in writing courses.

Although 29 of the 74 respondents recommend strong emphasis on grammar and mechanics, others warn against too much
emphasis on these topics. One officer relies on his secretary to handle these matters; another would admit no student to AFIT who was not already proficient in these areas.

The survey results indicate that the types of technical writing done by the respondents vary considerably by job, although all respondents write letters, the most frequently reported format. Progress reports, status and/or trouble reports, and instructions are also reported with some frequency. Most respondents have little or no occasion to write formal technical reports or journal articles.

In these and in the 19 other types of writing that the officers added to the list, it is evident that different jobs require different types of writing. Some respondents address this variability specifically when they state that recent changes in assignments or in their supervisors have affected the types, quantity, and style of the writing that they are expected to produce.

This variation by assignment may explain why only 31 percent of the respondents think AFIT should emphasize Air Force document formats in its writing courses. The majority would probably agree with one officer's opinion that writers must adapt to local conventions as they change assignments, and that format details can be picked up only on the job.

The timing of speech and writing courses is important to several of the respondents. The seven who address this topic unanimously recommend that the courses should occur early in the students' programs. One recommends a non-credit speech and writing course in the review term that precedes
the first full quarter for each class. Others point out that all AFIT courses should emphasize speech and writing, whether or not separate courses are offered on these subjects.
V Summary

The results of this survey provide very useful information about the speaking and writing done by graduates of AFIT's Graduate Systems Management Program. Not only do most of these officers speak and write frequently on their jobs, but they also recognize the importance of these activities in Air Force training. This interest is especially evident in the open-ended comments presented as the appendix to this report, and by the large number of respondents who submitted examples of on-the-job writing.

It is not possible to draw large generalizations from this single survey, although there is no evidence that these findings are atypical. In the near future, this study will be repeated among graduates of other AFIT programs, and the combined data from all of these surveys will permit other, broader interpretations. For example, when the 74 replies are sorted by the respondents' levels of command, it appears that systems managers in Air Force Systems Command product divisions write less than their counterparts at HQ Air Force or Major Command levels, but they spend almost twice as much of their time dealing with writing than do their counterparts in other commands.

These and other cross-tabulations, including analyses by rank, time in service, and specialty codes, must await the combined data from future studies. For the moment, it is sufficient—and important—that this study confirms the central role of communication skills among this group of managers.
APPENDIX

Respondents' Comments about Speaking and Writing

(Unedited)
The following comments about the importance of speaking and writing in Air Force careers and in the AFIT curriculum are quoted by permission. Since permission to quote did not expressly grant permission to attribute the quotations, the comments are printed without names.

Communication, whether written or oral, is essential in the systems management business. Besides AFIT, there are other schools such as SOS and ACSC, where communication is also taught. Judging from the quality of some papers and presentations here, however, it appears that the Air Force is missing the boat somewhere. This is, of course, not just an Air Force problem. Basic grammar, writing, and speech skills just aren't heavily emphasized these days. But if one wants to be successful in this business, he will stand a much better chance of selling his program or ideas if he can communicate clearly, organize thoughts into understandable sequence, be persuasive, know his subject, and (very important on Air Staff) be able to do this with very little preparation time.

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Hit them up front in the first quarter with a course in speaking and writing. Then require verbal and written products in all following quarters and classes to meet the standards you taught. Use Air Force writing forms and generally accepted briefing practices whenever possible: formal briefings to classmates, writing and delivery from talking papers, staff studies, point papers, etc. Your students will learn to think and act like senior Air Force professionals if you do it right.

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Writing at AFIT is very different from day-to-day writing in the Air Force. AFIT writing is on a higher plane, a higher educational level, which fits with the production of a Master's thesis. This should not change, as AFIT is a school for higher education, not a training school. However, once back in Air Force jobs, the biggest problem is writing to be understood. This means using "after" rather than "subsequent to." It means "keep it simple." This is what is required to get the Air Force job done. This is not what is recommended for a Master's thesis. I suggest AFIT stick to higher education and let SOS, ACSC, etc., provide the training. Please do not lose sight of the purpose of AFIT versus SOS, ACSC.

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I have found that the experience gained in writing the AFIT thesis and the extremely large volume of written and briefing material required in my SPO job has tremendously enhanced my effectiveness in this job. What has benefited me most was mastering note taking during policy and technical discussions/briefings and the ability to summarize this data, in writing, for others. In my SPO job I frequently authored lengthy messages that passed information Air Force-wide. Basics of effective writing might be worthwhile. I also very frequently produced minutes of technical meetings which I chaired—these received very wide distribution.
Writing and speech/briefing preparation are extremely important in any Air Force job. One of the biggest problems in most programs is adequate communication among all involved parties. The AFIT Systems Management course gave me a great deal of writing experience. I found it very valuable. Students complain at the time of the writing assignments, but once you get on your job, you find that writing comes easy because of the AFIT experience.

***

Effective writing and speaking should be embodied in every course in which effective communication is a part. A separate course is not appropriate, except for a four- or eight-hour Executive Writing short course in the preliminary part of the program (non-graded refresher). Effective writing and speaking should be required for entry into a graduate program. Having each student attend SOS in residence before entry or requiring a written statement of goals in pursuing graduate education, are two ways to emphasize communication skills in advance. Letters of recommendation could be developed in which supervisors assess these skills. If they aren't possessed upon admission, AFIT won't be able to teach them.

***

Writing and speaking are the most critical skills that a person in the military needs to possess. These are the only means we have of conveying our ideas to one another. In my job, I'm required to produce extensive planning documents, technical papers, guidance background, and current status reports. There are times when I have but a matter of minutes to get something written for the boss or for the one star or two star level. I'm also called upon to provide briefings. Often, I'm given an extremely short notice. The Systems management student would be much better prepared for the situations I, and I'm sure the majority of Air Force officers, meet on a day-to-day basis if he/she has more speech and writing in the AFIT curricula. However, the AFIT student, or at least the Systems Management student, is required to take a writing course and produce a number of written products throughout the AFIT tour. The area I believe the void exists in is the speech area. My speech requirements at AFIT consisted of leading a 15 minute session in one class, and defending my thesis. I believe a pass/fail speaking course, plus a greater emphasis on classroom speaking (such as briefing a particular area) would fit the need. It seems that the goal of the Systems Management program is to prepare the graduate student to assume greater responsibility and to be able to function in the higher management levels. A key element missing in the program is oral communication skills.

***

The ability to communicate the results of any effort is of almost equal importance to the effort itself. This ability is essential to the successful completion of one's job and to successful career progression. Therefore, AFIT (along with PME courses) should stress and teach speech and writing. I would suggest the following:

--While these subjects should be taught as a separate course, the speaking and writing assignments should be linked to regular course work. It is counter-productive to assign "make-work" speaking and writing tasks. Allow the student to do work done in other courses. Ideally, the speaking/writing course should be fully integrated with the regular curriculum so that assignments in other courses could also be used in the speaking/writing
The course should be geared to selling one's position to those in authority. A form of "marketing" approach would be appropriate.

A poll of senior officers (especially generals) should be taken to determine what deficiencies they see and what they see as a need.

De-emphasize form and format in the course. That can easily be picked up in the field. Also, that topic changes from command to command. Content should be stressed.

Both are essential for success. You must be able to clearly express your ideas before others can, or will, act on them. Leadership, management—each requires getting things done through others and thus demands effective communication. I have noted with considerable interest that every General I know both speaks and writes extremely well. Their success is undoubtedly related to these skills.

Writing in the Air Force is a critical communication form but poorly done by most Air Force personnel. Technical writing is especially poor. Emphasis in this area would be beneficial.

The most critical part of my job is convincing people of a point of view. If I have all of the facts and am knowledgeable on a subject but can't present it to an audience in a form that they understand, I fail to do my job. I personally feel that the most effective USAF officers are those who can relate their subjects to a wide spectrum of audiences. In this case, audience analysis is a must. I received a course in audience analysis at the Naval War College and I count it among the most valuable I have taken. I also feel that the spoken word and the proper use of visual aids are more important in convincing people than is the written word. I think that an AFIT course should be elective rather than mandatory. I have found that there is a negative reception to a speech/writing course when it is mandatory. People feel that their intelligence is being insulted. Properly approached, an elective could draw the majority of those eligible.

My current duty is as a team chief on a MAJCOM Inspector General team, so my job calls for perhaps an unusual amount of writing/editing/briefing. In analyzing the writing of the officer inspectors on my team (and I have different ones on different trips), I have observed the following areas that I think could stand improvement:

a.) I have noticed a fascination with "e.g." and "i.e."—they make reports hard to read. Make them go away.

b.) Some officers find it hard to write without using an abundance of ":" and ":". Please teach people to write simple, concise sentences.

c.) Big words are not better.

d.) Too many acronyms are worse.

e.) Do not write for your functional peers—they will understand what you said. Write for people who are not technical experts in your field.
f.) Teach people where to put commas. Then teach them not to use them unless necessary.

g.) People often write down items as they pop into the mind. Teach them to organize their writing.

h.) Teach people to edit/proofread someone else's writing.

... Typical correspondence includes OERs; letters to Chambers of Commerce, etc.; and executive level correspondence written for the boss. The latter is important and difficult—what does the boss want to say, who is he writing to, and what style does he desire to use. The above must be done accurately and quickly. I think speaking, and especially writing, skills development is an important (essential) item in AFIT's curriculum.

As an AFROTC instructor, I must prepare and deliver classroom lectures as well as instructions and orders for my cadets. I also handle the sort of letters and administrative communication common to most Air Force officers. I also grade and edit my students' work. During my follow-on assignment from AFIT, I wrote or edited Operational Test and Evaluation reports and briefings. In both of these jobs, I spent more time directing, editing, and evaluating other people's writing and speaking than I spent actually writing or speaking myself. Therefore, I think it is important for AFIT to teach the management of communication as well as to teach to communicate.

In accomplishing and supervising accomplishment of DT&E and IOT&E reports, it is apparent that a major factor in successfully completing an effort is defending the report and obtaining top management coordination. A recent change in general officers has required a change in writing level to obtain this coordination. This change in "style" does not change the requirement to change testing results. This writing requirement has proven to be a difficult task for many of the project managers.

How to do speeches is too dependent on circumstances. Let regular military education courses take care of fundamentals. Writing is critical! The course offered in technical writing at AFIT was excellent. That course even helped me get through SOS.

I am presently serving as a C5A pilot in a MAC squadron. However, immediately after my graduation from AFIT I served as a flight test manager in the A-10 System Program Office. If I were completing this questionnaire while serving in that capacity, the emphasis on writing and speaking would be more than doubled. From my view, the content of speech and writing courses needs to place emphasis on how to be clear yet concise. The primary prerequisite for clarity and conciseness is organization.

This questionnaire missed the most important problem: in any communication, verbal or written, it is most important to have a clear understanding of what and why one is attempting to communicate. Next, it is vital to understand the perspective of the recipient. Only then is it likely that the recipient will understand the intended communication.
A subordinate recently wrote a status report to another branch down the hall. I reviewed it and found more questions than were answered. My boss found even more questions. A week later, the letter was returned to the author, who subsequently decided that a face-to-face discussion would get the communication accomplished better. AFIT needs to concentrate on teaching communication skills, especially in a management course. Gathering data, syntax, style, etc. are secondary. Good luck.

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Your effort should culminate in a very serious, hard-hitting course in the art of briefing, answering inquiries, and writing. It is no longer sufficient, but merely a necessary condition, that Air Force officers/civilians in management overcome natural barriers to briefing. The officer of today must be equipped to deal with in-depth, caustic questioning by media, DOD, congressional, and similar personnel and personalities. Industry managers who are called on the carpet by tough policymakers have learned their lessons well. They are schooled in the art of communicating effectively in an adversarial arena. Too often we in the Air Force are beaten down by style.

***

The amount of time spent on actual briefing is a rather irrelevant question. One poor briefing to an influential colonel, general officer, or senior civilian can kill a program, kill a career, destroy morale, and generally be an absolute disaster. I am acquainted with a civilian operations research analyst who is absolutely brilliant in his field. He can analyze force structure, develop multifront battlefield scenarios, and is a whiz at sensitivity and parametric analysis. This genius blew a briefing to a General Officer steering group about ten years ago. He has never been able to rid himself of that millstone. It is still a matter of discussion. He has never been given the opportunity to present the fruits of his labors again. The fruit is too sweet to be cast aside because of blemished skin.

***

Make the students sweat defending their positions both in writing and orally. Better to learn these lessons in school than on the firing line. May your presenting skills result in an Air University-endorsed program in a tough, meaty challenge. It should not be the kiss of death for those who can't pass it; otherwise, the program may be "tailored" so that 99% pass. Good luck.

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I am not sure that a formal speaking/writing course is necessary. Instead, place more emphasis on these skills (i.e., grades) in the normal GSM coursework.

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We in AF/RD are fortunate in that internal to RD, little emphasis is placed on structural format. Great emphasis is placed on direct, crisp bullet style and accuracy of the data and grammar. Conversely, correspondence that goes outside RD must be perfect in regards to format, margin, spacing, etc. General Welch (Deputy RD) likes to restrict all paragraphs to no more than 7 lines. It's a good rule to use. Much of my own writing deals with things that can likely be used against us later on. Hence, we must be accurate regardless of technical complexity, yet write in a style non-RD chaps can comprehend. The overwhelming rule in AF/RD, if not across the Air Staff, is crispness, accuracy, conciseness--
preferred over flashy style or rigid format. Typos and misspelled words are corrected before signout, but are not as important as getting the message across clearly and briefly. To do the above, one must concentrate on organization and grammar/syntax, plus drafting as if you were the intended reader. Less on Webster's rules--albeit they are important--but that's why we have secretaries. Still, General Hill, ex-AF/CV, was the world's best proofreader.

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My job in the test division of a major program office at ESD has required a considerable amount of writing and some briefing. During my time at AFIT I took courses in Technical Writing and Research Methods but no speech course. I have also attended Squadron Officers School in residence with its emphasis on speech and writing. In most respects the above courses have given me adequate preparation for my current staff job. I feel any additional course at AFIT should address AF communications with emphasis on formats and a direct, concise style.

***

Any communications courses that are designed for the AFIT program should cover:

- The items contained in the Air Force Writing Courses with particular emphasis to keep sentences simple and easy to understand. The writer knows what he is talking about, but he often forgets the reader does not have the same understanding. This is a problem throughout all grade levels.

- The basic principles of "completed staff work" also need emphasis, particularly in the systems management area.

- Accurate documentation of events, cost tracks, changes, direction, etc. in program management is important. Complete and easily understood records cannot be overemphasized.

- Speech courses are needed, but they should be tailored to the type of briefing used in the Systems Acquisition area. "Chartsmanship" is a way of life in Systems Command. Format and content of briefing charts and how they are briefed are key elements to the success of a program.