FEASIBILITY STANDARDS FOR COMMUNICATIVE SKILLS

FINAL REPORT

for the

U.S. ARMY TRAINING AND DOCTRINE COMMAND

27 JANUARY 1992 FINAL OCT-91 - JAN 92

- FEASIBILITY STANDARDS FOR COMMUNICATIVE SKILLS
- USING EXISTING INSTRUMENTS TO MEASURE NCO COMMUNICATIVE SKILLS PROFICIENCIES

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FINAL REPORT
DABT 60-90-0004

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This report presents the findings of an investigation to determine the feasibility of using existing instruments to measure the communicative skills proficiencies (writing, speaking, and listening) of Noncommissioned Officers (NCOs) to Army standards. The following subtasks were performed:

- o Development of a detailed annotated bibliography with an accompanying summary review of the literature.
- o Review of 14 existing instruments with a recommendation for further evaluation.
- o Analysis of observations made during the course of the investigation.

SPEAKING, LISTENING, WRITING, COMMUNICATIVE SKILLS

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Running Head: Feasibility Standards

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Using Existing Instruments to Measure Noncommissioned Officers' Communicative Skills Proficiencies: A Feasibility Investigation

Carl R. Dolmetsch, Winn B. McDougal, and Deborah N. Vause

Running Head: **Feasibility Standards**

Executive Summary

This report presents the findings of an investigation to determine the feasibility of using existing instruments to measure the communicative skills proficiencies (writing, speaking, and listening) of Noncommissioned Officers (NCOs) to Army standards. The following subtasks were performed:

- Development of a detailed annotated bibliography with an accompanying summary review of the literature.
- Review of 14 existing instruments with a recommendation for further evaluation.
- Analysis of observations made during the course of the investigation.

The detailed annotated bibliography was developed based on an exhaustive review and analysis of communicative skills testing literature. This review found support for the interrelatedness of these skills (the "whole language" approach). However, this interrelatedness is complex, and there remain considerable differences among the three skills.

Fourteen instruments were identified as candidates for evaluation. Each of these instruments was evaluated using multiple raters against a set of communicative skill tasks and standards provided by the Army. Results suggest that several specific instruments merit further consideration: Two for writing and one each for listening and speaking.

- For writing:
  - **Test of Written English, Second Edition (TOWL-2).**
  - **General Educational Development (GED).**
- For Listening:
  - **The Watson-Barker Listening Test (WBLT).**
- For speaking:
  - **Dantes Principles of Public Speaking (DPPS).**

Recommendations include examining correlations of instruments already in use, researching and developing a comprehensive model of communicative skills from which constructs may evolve, and piloting certain instruments to examine their statistical properties within an Army sample.

Abstract

An investigation was conducted to determine the feasibility of using existing instruments to measure the communicative skills proficiencies (writing, speaking, and listening) of Noncommissioned Officers (NCOs) to the Army's standards. The literature was reviewed with an emphasis on issues associated with testing in general and proceeded to the specific areas of writing, speaking, and listening. Support was found for the interrelatedness of these skills (the "whole language" approach). However, it is a complex relationship, and there remain considerable differences between the three modes.

Publishers' statements were reviewed regarding their instruments. Fourteen instruments were initially identified for further evaluation. Each of these instruments was evaluated against a set of communicative skills (tasks and standards) provided by the Army using multiple raters. Results suggest that the **Test of Written Language, Second Edition (TOWL-2)** and the **General Educational Development (GED)** instruments will support measurement of writing skills to the Army's standards. One instrument was evaluated and found acceptable to measure listening (the **Watson-Barker Listening Test**), and one instrument was evaluated and found acceptable to measure speaking (presentation) skills (**Dantes Principles of Public Speaking [DPPS]**). Recommendations include examining the correlations of instruments already in use (the **Test of Adult Basic Education [TABE-A]**, the **Armed Services Vocational Aptitude Battery [ASVAB]** and the **Basic Army Skills Education [BASE]**), researching and developing a comprehensive model of communicative skills from which constructs may evolve, and piloting certain instruments to examine their statistical properties within an Army sample.

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INTRODUCTION

As part of its continuing effort to improve the communicative skills of its soldiers, the Army determined a need to investigate the existence of instruments that will measure writing, speaking, and listening skills to Army standards. This report presents the results of this investigation. It consists of a review of the literature with a comprehensive annotated bibliography, an examination of existing instruments using the Army's communicative skills standards as baseline guides, and recommendations built on the results of the investigation combined with observations of related programs made during the course of the investigation. This study was neither intended nor designed to assess the validity of the Army's communicative skills standards.

Background

In 1987, the Army Training and Doctrine Command (TRADOC) replaced the Army Writing Program (AWP) with the Army Communicative Skills Program (ACSP) (TRADOC Regulation 350-25). The ACSP regulation sets the standard for effective communication in writing, speaking, and reading. The stated goal of the program is, "To improve the ability of soldiers and civilians to communicate the commander's intent." However, a 1988 Battelle-conducted evaluation of the ACSP concluded that,

> "Overall, neither the AWP nor its successor, the ACSP, has had much impact yet ... the program has little to offer ... for improving the academic competencies of NCOs [Noncommissioned Officers]. ARI should follow through on its original task objectives: To determine existing and future NCO skills requirements and evaluate NCOES [Noncommissioned Officers' Education System] instruction in academic competencies; to determine existing and future NCO academic competency requirements for training, job performance, and career progression; to evaluate NCOES instruction in academic skills."

A task force composed of Army officers, NCOs, and civilians developed an **Action Plan** (Noncommissioned Officer Leader Development Task Force, 1989). The **Action Plan** provides a framework for an integrated effort designed to overhaul the

system of NCO development. The recommendations focus attention on an increased leader role for the NCO; the skills, knowledges, and attitudes required of this role; and the requirement for a "...single source document on NCO leader development that provides a clear road map to professional development" (Recommendation 18). One recommendation from this task force was to,

> "Develop an integrated program that establishes clear standards and guidelines for development, assessment, and remediation of all communicative skills" (Recommendation 11).

This recommendation led to an initiative to develop a viable communicative skills program for the NCOES. Because of identified deficiencies in these areas, the lynch-pin of this program is the identification of individuals requiring remediation in one or more of the communicative skills. Identification is performed through diagnostic testing.

This investigation evaluated existing instruments that may meet requirements to measure NCO proficiency in writing, speaking, and listening to Army standards. These standards are summarized in Table 1. The Army standard for writing is contained in AR 25-50. It defines good writing as "... understandable in a single rapid reading and ... generally free of errors in grammar, mechanics, and usage." Components of good writing to the Army standard are: Clarity; complete sentences; grammatical English; proper capitalization, punctuation, and spelling; and writing primarily in the active voice with the "bottom line up front." Student Text 22-2 (ST 22-2) describes a standard for speaking from the point of view of "... the fundamental goal of all staff communications: Communicate in one rapid transmission, generally free of errors." Components of good speaking are focus, organization, and coherence. The Army standard for good listening is "... the ability to listen effectively and interpret oral communications under all conditions." Good listening is equated with active listening. Components of active listening are understanding, remembering, evaluation of oral message, questioning, and feedback.

The following sections describe the NCOES communicative skills program with an emphasis on measurement. The next sections then discuss how other Services (the Navy, Air Force, and Marines) and English-speaking allies treat the issue. Following this is a review of the literature in the field.

The NCOES

There are four levels to the NCOES: Primary Leadership Development Course (PLDC), Basic Noncommissioned Officers Course

TABLE 1

SUMMARY OF NCO COMMUNICATIVE SKILLS TASK ANALYSIS

Measurable Functions
I - Writing Skills Organization/Composition Unified Paragraphs: · Thesis Sentence · Detailed Sentences Clarity Complete Sentences Grammatical English Capitalization Punctuation Spelling Active Voice Bottom Line Up Front
II - Speaking Skills Volume Speed Non Verbal: · Posture · Bearing · Eye Contact Pronunciation Grammatical English Word Choice Distractors Content: · Organization · Supports Main Idea
III - Listening Skills Active Listening Feedback Questions (Clarification) Follow Instructions Understanding Remembering Note Taking: · Main Points · Key Points · Directions Organization Summarization Evaluation of Oral Message

(BNCOC), Advanced Noncommissioned Officers Course (ANCOC), and the Sergeants Major Course (SMC). These four levels are designed to parallel an NCO's professional development and promotion within the system (see Table 2). When a potential NCO first demonstrates leadership potential at the Private First Class or Specialist level, his unit commander recommends him to the PLDC. Generally, there is a 3- to 4-year period between each of the formal school sessions for an NCO. Therefore, an NCO is usually selected to the SMC after 15 years or more of experience and at the Master Sergeant level.

Within each of the courses of NCOES, there is a communicative skills Program of Instruction (POI). However, based on the philosophy of the Army Communicative Skills Office (ACSO), there is also a communicative skills component in each of the tasks in NCOES. By analyzing the communicative skills components of NCOES, the Army identified a set of common communicative skills and standards required to perform all of the communicative skills tasks in NCOES (see Appendix B). This list of tasks is intentionally generic to cover as much ground as possible and to cut across the commonalities of as many of the tasks found in NCOES as possible.

Army Existing Measurement Techniques. The Army uses a variety of means to measure communicative skills at different levels. Officers attending basic and advanced courses and the Command and General Staff College (CGSC) are assessed for writing skills using standardized tests (primarily for reading ability and writing correctness) and essays (individually graded). Essays are evaluated using a six-point holistic method for rapid evaluation.

NCOs are primarily assessed through the **Test of Adult Basic Education - Advanced level (TABE-A)** as an indicator of reading and comprehension proficiencies. **TABE-A** is given to each NCO before attending ANCOC. This usually occurs only days before an NCO departs his duty station. The results are sent by the education center to the Sergeants Major Academy (SMA) for evaluation. The results are available to the commanding officer at the soldier's home station.

The NCO first encounters writing assignments at ANCOC. The POI for communicative skills at ANCOC is 15 hours. Students write papers that are individually evaluated. Interviews with Army-identified Points-Of-Contact (POCs) indicate that: 1) although each NCO is required to complete the communicative skills POI, a specified grade or passing mark is not required; 2) there is a degree of plagiarism and complacency among students in the communicative skills program as a result; and 3) evaluators are often poorly trained, leading to a high degree of inter-rater error.

TABLE 2

NONCOMMISSIONED OFFICER EDUCATION SYSTEM

YEARS	SL*	RANK	COURSE	REASON FOR TRAINING
3-8	2	SP4(P)/ CPL(P)-SGT	**PLDC**	Junior NCO/Team Leader (Lead 3-5 Soldiers)
5-10	3	SGT(P)-SSG	**BNCOC**	Squad/Section/Crew Leader (Lead 3-15 Soldiers)
7-14	4	SSG(P)-SFC	**ANCOC**	Platoon Sgt/Staff NCO (Lead 5-60 Soldiers Sect-Plt)
16-24	5	MSG(P)/1SG -SGM/CSM	**SMC**	Sergeant Major/Command Sergeant Major (Lead 5-1000 Soldiers Sect-Bn)

Note: * SL stands for "skill level."

What Other Services Do

Representatives of other Services and allied English-speaking countries were identified and interviewed for this investigation. A list of POCs is provided at Appendix C.

The Air Force. The Air Force offers two communicative skills programs to officers: The **Effective Writing Course** (1980), and **Tongue and Quill** (1985). A report by the Air Force Air Command and Staff College (1988) concluded that one of two major areas where senior NCO professional military education is falling short is communicative skills.

The Navy. The professional military education system is decentralized up to the level of Senior Enlisted Academy. Seamen (E3) attend a 3-day Petty Officer Indoctrination. Junior and Chief Petty Officers (E5-E7) attend a 2- to 5-day Naval Leadership Development (NLD) course. Senior/Master Chief Petty Officers attend either NLD or a Senior Enlisted Academy (60 students/five courses annually). Communicative skills are presented in all courses using the Six-Part Communications Model (sender, message, receiver, medium, feedback, and filters) with four factors (listening, sender, receiver, and message) in both lecture and role-playing exercises. A Grammar Diagnostic Test is used at the Senior Enlisted Academy. An Effective Writing course is used (subjectively graded).

The Navy has done considerable work correlating its reading test (the Gates-MacGinitie Reading Tests) with the **Armed Services Vocational Aptitude battery (ASVAB).** The Gates-MacGinitie Reading Tests are used as a screening device for remediation (Brown & Kincaid, 1982). There is no indication that the Navy is pursuing research in the other communicative skills.

The Marines. The intent of the Marine communicative skills program is to couple NCO communicative skills performance to specific tasks. The focus is on training field NCOs to handle staff NCO duties. They are in the process of investigating ways to grade effectiveness of communication with an emphasis on writing. The Marines use the Nelson-Denny test for comprehension and vocabulary when NCOs begin resident courses. The test is used to help diagnose specific training and educational needs and provides remediation strategies for writing; however, this test is subject to wide variance based on "test-taking behavior."

All Marine Corps students are administered the **Sequential Test of Educational Progress (STEP) in English Writing Inventory** at the beginning of the course. Testing is administered by the contractor. Writing projects are subjectively graded with feedback from the **STEP Test** used to guide counseling. Briefing skills are subjectively graded throughout the course.

What Other Countries Do

Great Britain. The British Army tests English communicative skills only for foreign-born recruits using criteria to assess a Standard Language Profile. This includes the ability to read, write, and comprehend written and oral communications on a subjectively graded scale of zero to five with five being "Native Speaker." The Army is considering the British Council International English Language Testing System that uses standardized baseline essays and tapes. The format for this instrument includes questions for speaking, writing, and comprehension based on objective measures and subjective measures to evaluate conversational skills.

Australia. Soldiers are recruited to civilian educational prerequisite standards (roughly equivalent to Scholastic Aptitude Test (SAT) minimum scores). Selection to Sergeant (12th year) is partly contingent on a written and oral qualification exam with subjective assessment. Selection to Warrant Officer (Senior NCO) also uses a written and oral exam for qualification. **Note:** The Australians find American training and doctrinal literature difficult to read and understand without a grounding in "Military English." The Australians recommend the use of English teachers to review publications for readability and clarity.

Canada. All Canadian Armed Forces personnel take a general ability test and a classification battery which is equivalent to the **ASVAB.** Testing is also done to support the English-French bilingualism requirement of the Canadian Armed Forces. These tests are developed and administered by the Directorate of Language Training (equivalent of Defense Language Institute [DLI]).

Canada is exploring literacy testing for the Canadian Reserve Forces due to a much higher propensity of immigrants and ethnic minorities to enlist in the Reserves than in the Active Forces. The Canadian Armed Forces is also downsizing and shifting increasing emphasis to Reserve Forces.

Review of the Literature

The literature regarding measurement of communicative skills was reviewed. Appendix D provides a fully-developed, annotated bibliography. This literature review summarizes information developed for the comprehensive annotated bibliography. It does not include discussions of writing or speaking anxiety; psychomotor skills; or potential bias, such as English-as-a-Second-Language (ESL) or sex differences in media preference. The annotated bibliography in Appendix D includes discussions of these issues.

Writing. There are two primary methods for evaluating writing quality: Direct and indirect. Direct methods involve

writing samples. Indirect methods are standardized multiple-choice tests used as replacements for, or in conjunction with, writing samples.

There are three generally accepted procedures for direct evaluation of writing quality: Primary trait, analytic, and holistic (Huot, 1990). Primary trait scoring involves the identification of one or more traits relevant to a specific writing task. These traits are related to the specific context of the situation created by the purpose, audience, and writing assignment.

Analytic assessment focuses on several identifiable qualities germane to good writing. Once these qualities of good writing are identified, the quality of a paper is judged by how many components of good writing it contains.

Holistic scoring reflects a rater's general impression of a piece of writing based on a six-point scale. In most holistic procedures, scoring guidelines detail which general characteristics represent writing quality for each score of the scale being used (for example, sentence structure).

Direct methods of writing evaluation are subject to a variety of sources of error including inter-rater, inter-mode, and attenuated reliability. Inter-rater error refers to the fact that two raters looking at the same paper can arrive at different assessments. These different evaluations can be a function of different backgrounds or experiences and/or different instructions for evaluation. Similar to inter-rater error is inter-mode error. Holding constant the variance accounted for by raters and writers, evaluations still vary significantly as a function of topic. Attenuated reliability refers to the phenomenon of rating a paper low after giving an immediately preceding paper a high mark or vice versa.

Although generally more reliable than direct methods, indirect methods, to date, have not demonstrated an ability to tap abilities in all of the subdomains of writing. Indirect methods are used primarily to assess proficiency in mechanics including spelling, capitalization, and punctuation. Until recently, it was felt that attempts to expand the use of indirect methods to other subdomains would be fruitless. Recently, researchers have uncovered indirect methods that demonstrate a high degree of reliability and validity in measuring organization as well.

Of primary interest to this investigation is the ability of indirect methods to predict writing ability. Breland and Gaynor (1979) demonstrated an equivalence between direct and indirect evaluation methods in predicting writing ability. Their conclusion was that both methods may, in fact, be tapping the same writing skills.

In an experiment by Benton and Kiewra (1986), college student subjects each wrote two essays. Each essay was graded by two raters on a six-point holistic scale (inter-rater reliability was .80). They also completed the Test of Standard Written English (TSWE). The same subjects returned 2 days later and completed four organizational tests: Anagram solving, word reordering, sentence reordering, and paragraph assembly. Results indicated that a composite score from the four tasks had the highest correlation with the holistic measure of writing ability.

Speaking. Speaking ability is closely linked to writing ability in the literature. In accordance with the "whole-language" concept, some institutions of higher learning include speech communication in composition classes (Raforth, 1989). The implicit assumption is that oral and written language is the same, and all students have to do is write down what they said.

The whole-language concept does not take into account differences between the two modes (Hammond, 1987), nor does it take individual differences into account. For example, there are differences in audience. In speaking, the audience is known while the writer has to imagine an audience (Ward, 1985). This, in turn, leads to differences in the way meaning is conveyed. A speaker can depend on a listener to fill in meanings, while a writer must provide explicit meaning.

Another consideration is that although a person may, in fact, be a very good speaker, he may not be able to write. The converse holds true as well.

Measuring speaking ability is new. There is little in the literature to suggest that speaking tests have been subjected to the same rigorous investigation as have tests of either writing or listening. It is very much context driven. This is a fertile area for further investigation.

Listening. There are two major issues involved in measuring listening (Faires, 1980). The first is a lack of knowledge about the process itself (Ridge, 1984). The second is a lack of valid instruments. Any measure of listening, by nature, involves a measure of recall as well.

Bostrom (1984) proposes a five-factor model to describe the listening process. These five factors are short-term listening, short-term with rehearsal listening, interpretive listening, lecture listening, and selective listening. These five factors have been statistically supported as being independent through a factor analysis of the American College Testing Program (ACTP).

Most existing listening tests are designed to measure only one of these factors. Therefore, the test user must determine exactly what he is interested in measuring (Ridge, 1984).

Summary

Some NCOs selected to attend NCOES courses are ill-prepared in communicative skills. At present, there is no mechanism for identifying and/or isolating these individuals prior to attending NCOES courses. Of value is identification of a means to accurately predict performance in NCOES coursework. Since NCOES is highly communicative skills-dependent, a prime candidate is a test or battery that will detect individuals deficient in communicative skills and direct them to remediation before they attend an NCOES course. The review of the literature supports the use of instruments to diagnose communicative skills deficiencies.

METHOD

Overview

This investigation examined existing instruments that potentially could be used as diagnostic indicators. As pretests to NCOES, these instruments could help identify candidates for remediation.

The investigation employed a two-step, multi-rater agreement method of evaluation. Once instrument publishers were identified, catalogs and samples were solicited. Publishers who responded generally sent catalogs. From the catalogs, a list of candidate instruments was identified. The Army also presented candidate instruments. Publishers were then requested to send sample copies of these instruments for review. At least two raters (one an educational specialist) examined the candidate instruments. They asked two basic questions of each instrument: Does this instrument appear to measure the communicative skills tasks in Appendix B, and, if so, to what extent? Overall ratings were based on a scale of zero to eight.

Step One

Instrument publishers were identified from the **Mental Measurements Yearbook** and educational and psychological measurement texts (Anastasi, 1982 & Hopkins and Stanley, 1981). Thirty-three letters were sent to test publishers (see Appendix E for a list of publishers). In response, 14 catalogs, one sample, and one letter were received. Nine letters were returned as undeliverable. No response was received from the remainder after two requests.

Instruments were identified from the catalogs that appeared to meet the Army standards (see Appendix E for a list of instruments identified). For criteria, publishers' statements were examined regarding what the test measures and any statistical information provided along with the age group for

which the test was designed. From the catalogs, nine instruments were identified that appeared to measure proficiencies in communicative skills to the Army standards. These nine instruments were in addition to the five instruments identified by the Army.

Step Two

As soon as sample instruments and manuals were received, they were placed under a controlled-access environment. Only instrument evaluators directly involved with this investigation were provided access to the sample products.

Evaluation Team. The evaluation team consisted of a senior education specialist, an education specialist, and a psychologist. The senior education specialist, a Ph.D. in English from the University of North Carolina at Chapel Hill, taught courses in communicative skills at the university level for 8 years. The education specialist has over twenty years of experience in Army training programs. The psychologist has a specialization in instrument development, use, and evaluation.

Procedure. Two evaluators reviewed each sample. Evaluators were instructed to compare each instrument to the set of communicative skills tasks and standards provided by the Army. Evaluators were advised to review administration manuals, instruments, and scoring information. The results of each of their analyses were kept on separate, individual instrument evaluation forms that were designed to capture instrument descriptions and evaluation information.

Once they had completed an individual instrument evaluation form, evaluators were further asked to provide an overall rating of the instrument's apparent ability to measure the Army communicative skills standards. This overall evaluation took the form of a "likert-like" scale with a range of zero (representing no perceived correspondence to the NCOES task list) to eight (representing complete concurrence with the NCOES task list). Although the evaluation data was subjective and nominal in nature (yes/no, pass/fail), it was felt that by forcing ratings into a likert-like scale format, a finer degree of comparability could be obtained. This also made it easier, not only to rank order the instruments, but also to provide a judgment of how much better one instrument was than another at measuring the appropriate NCOES list of communicative skills and tasks. The overall ratings were then averaged to provide an average overall rating for each instrument.

Instruments that measured writing quality were further reviewed to determine the extent to which they measure the factors of good writing used in ST 22-2 (see Appendix B).

Overall ratings were reviewed against the individual ratings to support judgments.

RESULTS

Over 200 instruments were looked at to arrive at the 14 which were evaluated. The distribution did not quite match that requested by the Army. Four problems were identified in not meeting the target maximum of 18 instruments. The first problem was the time-sensitive nature of this investigation. This investigation was limited to a total of 8 weeks. It is quite possible that more publishers and instruments exist. Due to time limitations, a decision had to be made when to curtail this line of investigation in order to complete other parts of the research. A second problem was the transient nature of instrument publishers. As noted above, almost one-third of the original letters were returned as undeliverable. The third problem was a lack of instruments that measure speaking and listening skills. The fourth problem was a lack of instruments designed for adult populations. Many of the instruments that would otherwise have been acceptable for evaluation failed to meet minimum acceptable levels due to the lack of age-appropriateness.

Appendix F provides a description of all of the instruments evaluated during the investigation. Table 3 summarizes the results of the overall ratings of evaluated instruments. The NCOES Task List (see Appendix B) suggest the diverse components of writing, speaking, and listening skills. There is some overlap between skills (e.g., use of grammatical English is a component of writing and speaking; organization is a component of all three skills). However, most standards and tasks are unique for writing, speaking, and listening. This observation is supported by the results which suggest that there is no single test that measures all of the Army communicative skills requirements. However, individual tests measure portions of the Army communicative skills.

Clearly, one factor consistently missing from all tests is the military subject matter.

Writing

From Table 3, it can be seen that three instruments received overall ratings of five or above. These instruments were the **Test of Written Language**, the **General Education Development** test, and the **Prentice-Hall Diagnostic Test**. Of these, the **Test of Written Language** and the **General Education Development** test were recommended to the Army for further evaluation. Tables 4a and 4b summarize the results of evaluations of instruments that measure

TABLE 3

INSTRUMENT RATINGS

INSTRUMENT. PUBLISHER	RATER 1	RATER 2	AVG.
1. WRITING			
TOWL-2, Form A & B. (PRO-ED, 1988)	7	7	7
GED. (American Council on Education, unk.)	6	7	6.5
Prentice-Hall Diagnostic Test. (Prentice-Hall, unk.)	6	5	5.5
BASE. (U.S. Army, unk.)	4	5	4.5
TABE-A, Form 5. (CTB, 1987)	4	5	4.5
WRAT-R. (Jastak, 1984)	6	2	4
EAS. (Psychological Services, 1984)	5	2	3.5
Expression, Form A. (London House, 1960)	2	2	2
Skill-Scope. (C.C.L., 1988)	1	3	2
Word Fluency. (London House, 1961)	0	0	0
Verbal Reasoning. (London House, 1958)	0	0	0
Understanding Communication. (London House, 1984)	0	0	0
2. SPEAKING			
D.P.P.S. (ETS, 1989)	5	7	6
3. LISTENING			
Watson-Barker Listening Test Form A. (Spectra Publishers, 1987)	5	5	5

Note: Ratings based on a scale from 0 (no match to NCOES task list) to 8 (complete match of NCOES task list).

TABLE 4a

SUMMARY OF WRITING INSTRUMENT RATINGS - STANDARDS

STANDARDS	INSTRUMENTS[1,2]					
	1	2	3	4	5	6
1. Well organized and clear enough for the reader to understand in a single, rapid reading.	X	X	X	X	X	
2. Written in complete sentences, without fragments and run-ons.	X	X	X	X		
3. Standard, grammatical English, with few, if any, errors and without slang, jargon, or inappropriate diction.	X	X	X	X	X	
4. Written in conformance with rules of capitalization & punctuation.	X	X	X	X		
5. Spelled correctly, with few, if any, spelling errors.	X	X	X	X	X	X
6. Use the active voice (Army Style).			X			
7. Identify the bottom line up-front.			X	X	X	

Note: [1] The following is a list of writing instruments evaluated and summarized in Table 4a with their corresponding instrument number.

1. **Test of Written Language, Second edition (TOWL-2).**
2. **General Education Development (GED).**
3. **Prentice-Hall Diagnostic Test.**
4. **Basic Army Skills Education Examination (BASE).**
5. **Test of Adult Basic Education (TABE).**
6. **Wide Range Achievement Test - Revised (WRAT-R).**

[2] An X indicates that the instrument measures the standard or task.

TABLE 4a (Continued)

SUMMARY OF WRITING INSTRUMENT RATINGS - STANDARDS

STANDARDS	INSTRUMENTS[1,2]					
	7	8	9	10	11	12
1. Well organized and clear enough for the reader to understand in a single, rapid reading.	X	X	X			
2. Complete sentences, without fragments and run-ons.						
3. Written in standard, grammatical English, with few, if any, errors and without slang, jargon, or inappropriate diction.	X	X	X	X		
4. Written in conformance with rules of capitalization & punctuation.						
5. Spelled correctly, with few, if any, spelling errors.						
6. Use active voice (Army Style).						
7. Identify bottom line up-front.	X	X				

Note: [1] The following is a list of writing instruments evaluated and summarized in Table 4a with their corresponding instrument number.

7. **Employee Aptitude Survey (EAS).**
8. **Expression.**
9. **Skill-Scope.**
10. **Word Fluency.**
11. **Verbal Reasoning.**
12. **Understanding Communication.**

[2] An X indicates that the instrument measures the standard or task.

TABLE 4b

SUMMARY OF WRITING INSTRUMENT RATINGS - TASKS

TASKS	INSTRUMENTS[1,2]					
	1	2	3	4	5	6
1. Write sentences. Write a variety of clear and concise sentences on one or more military topics.	X	X				
2. Write a paragraph. Write a simple, unified paragraph consisting of one thesis sentence and at least five detailed sentences.	X	X				
3. Write a paper. Write a paper by organizing information, grouping related information into paragraphs opening with the main point, and sticking to what the reader needs.	X	X				
4. Write a special purpose paper. Correctly write a research paper that involves solving a special problem or justifying a decision.						
5. Proofread and correct a written work using the rules of grammar, mechanics, usage and spelling.	X	X	X	X	X	

Note: [1] The following is a list of writing instruments evaluated and summarized in Table 4b with their corresponding instrument number.

1. **Test of Written Language, Second edition (TOWL-2).**
2. **General Education Development (GED).**
3. **Prentice-Hall Diagnostic Test.**
4. **Basic Army Skills Education Examination (BASE).**
5. **Test of Adult Basic Education (TABE).**
6. **Wide Range Achievement Test - Revised (WRAT-R).**

[2] An X indicates that the instrument measures the standard or task.

TABLE 4b (Continued)

SUMMARY OF WRITING INSTRUMENT RATINGS - TASKS

TASKS	INSTRUMENTS [1,2]					
	7	8	9	10	11	12
1. Write sentences. Write a variety of clear and concise sentences on one or more military topics.						
2. Write a paragraph. Write a simple, unified paragraph consisting of one thesis sentence and at least five detailed sentences.						
3. Write a paper. Write a paper by organizing information, grouping related information into paragraphs opening with the main point, and sticking to what the reader needs.						
4. Write a special purpose paper. Correctly write a research paper that involves solving a special problem or justifying a decision.						
5. Proofread and correct a written work using the rules of grammar, mechanics, usage and spelling.		X				

Note: [1] The following is a list of writing instruments evaluated and summarized in Table 4b with their corresponding instrument number.

7. **Employee Aptitude Survey (EAS).**
8. **Expression.**
9. **Skill-Scope.**
10. **Word Fluency.**
11. **Verbal Reasoning.**
12. **Understanding Communication.**

[2] An X indicates that the instrument measures the standard or task.

writing as compared to the NCOES task list of standards and tasks, respectively.

The Test of Written Language (TOWL-2). The **TOWL-2** was the highest rated writing instrument. It measures all of the writing tasks in the NCOES task list except task 4 (special purpose paper). It also measures all of the standards except standard #6 (active voice) and standard 7 (stating the bottom line up-front. A single drawback is that it requires considerable time to score.

The General Educational Development (GED). The **GED** is normed to a population of soon-to-graduate high school students. There are foreign language versions in Spanish and French. Its reading reliability coefficient mirrors high school baseline requirements. It measures all of the writing tasks in the NCOES task list except task 4 (special purpose paper). It also measures all of the standards except standard 6 (active voice) and #7 (stating bottom line up-front).

The TOWL-2 and the GED were the only two instruments of those studied that provide both direct and indirect evaluation of written communication skills. From the perspective of the communicative skills expert, the essay requirement is highly desirable. While this direct evaluation tool is more subjective than indirect tools, it is also more performance oriented. What better way to measure the ability to write than actual writing?

To lessen the time required in evaluation and to increase objectivity, specific guidelines for grading should be provided.

One might object that not all standards and tasks are currently evaluated by either of these two instruments. However, this objection can be eliminated if instructions for the essays specify that a military topic be addressed and if specific guidelines for grading are provided (e.g., use active voice, state bottom line up-front).

Specifying a military topic supports an important principle of adult learning: Provide students with training and evaluation that are realistic and relevant to their jobs. Providing students with a list of evaluation criteria for the essay allows the student a sense of control during the evaluation process.

Using the ST 22-2 guidelines, both the **TOWL-2** and the **GED** were found to measure organization and correctness. Neither instrument is designed to measure substance or style.

Speaking

Only one instrument was identified that measures speaking, the **Dantes Principles of Public Speaking (DPPS)** test. Its recommendation for further evaluation can be considered to be by default in that its average overall rating was marginally good.

Table 5 provides a summary of the NCOES tasks and standards that this instrument measures.

The **DPPS** certifies mastery of the equivalence of a semester course in public speaking. However, it can be easily and successfully converted to use for NCOES. It measures all of the speaking tasks for NCOES except the non-verbal performance and distractors.

Listening

Table 6 provides a summary of the evaluation of the only listening test identified. **The Watson Barker Listening Test (WBLT).** The video version of the **WBLT** was found to be acceptable for all listening tasks. It measures active listening; instruction following; and understanding, remembering, and evaluation of oral messages.

DISCUSSION

The purpose of this investigation was to determine the feasibility of using existing instruments to measure NCOs' communicative skills proficiencies to the Army standards. From an analysis of both the literature and existing instruments, the answer is a qualified yes. There are two key components to a statement of feasibility: A statement of whether or not it is possible; and if so, a statement of cost-effectiveness.

In response to the first component, several instruments were identified that appear to meet all or part of the Army's need. It would be convenient, economical, and efficient to suggest that, given the nature of the relationship between written and oral language, the **TABE** series can be effectively utilized to determine those individuals who have writing and speaking as well as reading deficiencies. However, there are individual differences in communicative skills. For example, some individuals speak with a high degree of fluency and articulation, yet, those individuals are unable to communicate as effectively in writing. Similarly, there are some excellent writers who are unable to give an acceptable oral presentation. It appears that the **TABE-A** can continue to be used effectively as a "pre-screener" to identify those individuals who may have a communicative skill deficiency. If an individual attains a minimum required score or better on the **TABE-A**, there would be no purpose in further screening or remediation. However, there may be any number of reasons why an individual fails the **TABE-A.** Further diagnostic testing could isolate the specific area requiring remediation. To this end, the Army could give further consideration to the **TOWL-2**, the **GED**, the **WBLT**, and the **DPPS.**

TABLE 5

SUMMARY OF SPEAKING INSTRUMENT RATINGS

STANDARD	DPPS*
1. The presentation will be delivered at a volume and speed that is appropriate to the audience and topic.	X
2. The speaker will maintain correct posture, bearing, and eye contact.	
3. The pronunciation will be clear and easy for listeners to follow.	X
4. The grammar and word choice of the student will reflect standard English, with few, if any, grammatical or usage errors.	X
5. The speaker will avoid distracting barriers to effective communication.	
6. Speech organized in accordance with Ch. 3, ST 22-2.	?
7. Content supports main idea of speech/oral presentation.	X
TASKS	
1. The soldier will answer the telephone clearly, will conduct an effective telephone conversation, and will clearly transmit the message orally.	
2. Deliver a well organized speech to a group. (Deliver a message, assign tasks to groups or individuals and deliver an information briefing).	
3. Deliver a performance-oriented training session including task, condition, and standard.	
4. Modify delivery of oral communication to meet needs of audience.	X

Note: * An X indicates that the instrument measures the standard or task.

TABLE 6

SUMMARY OF LISTENING INSTRUMENT RATINGS

STANDARDS	WBLT*
1. Demonstrate active listening and give appropriate feedback.	X
2. Ask questions to clarify garbled message.	
3. Follow instructions by correctly completing tasks assigned orally.	X
TASKS	
1. Demonstrate understanding and remembering of the meaning of verbal communication by following a series of oral directions, instructions, or commands.	X
2. Take notes from a short briefing on a military topic and list all main ideas, key points, and directions.	
3. Organize and summarize (orally or in writing) pertinent information from a series of orally delivered garbled passages.	
4. Perform a task following a performance-oriented training session.	
5. Evaluate message content.	X

Note: * An X indicates that the instrument measures the standard or task.

As to cost-effectiveness, all of these instruments are relatively inexpensive to purchase. The most expensive instrument reviewed has a list purchase price of $50.00 per testee. An added hidden cost is the time required to administer and score. Here, considerable differences were found (e.g., a range from 10 minutes to administer and 30 seconds to score, to 90 minutes to administer and 1 hour to score).

The results of this investigation have to be viewed within the context of the Army NCO leader development program. There are several parallel initiatives. As the Army reduces forces by 35 percent, programs are being cut and/or eliminated. Old systems are continually being replaced by more technically complex and sophisticated systems. Other recommendations from the NCO Leader Development Task Force continue to be studied and implemented.

Recommendation 18 from the NCO Leader Development Task Force has led to the development of "career maps" for enlistees. These career maps lay out the requirements for each enlistee's promotion and progression through the ranks. In a draft of these career maps, communicative skills proficiencies are explicitly detailed with recommended reading abilities prior to NCOES course attendance. For example, prior to PLDC, an NCO should read at the tenth grade level. Table 7 summarizes the results of a study performed by the Army Research Institute (ARI) in 1989 and the Army Personnel Integration Command (1991) for four Military Occupation Specialties (MOSs) with the recommendations. From this summary, it is clear that the Army has a long way to go to realize this objective.

Yet, it appears that it is the Army's intent to place an increased responsibility on the individual for communicative skills and any required remediation prior to attending NCOES courses. This observation is consistent with statements made during interviews with POCs. NCOES courses will be required to cut both the length of its POI and the number of students who will be allowed to attend. Pretesting will be performed at each level to determine candidates who are deficient in communicative skills. Communicative skills POIs will then be removed from NCOES courses. Mechanisms must be developed and implemented to allow for this.

Currently, there is no mechanism in place to identify candidates for remediation prior to NCOES course attendance. Once the NCO has been recommended to an NCOES, duty orders are cut. Currently, the NCO does not pretest until shortly prior to PCS. Therefore, if any remediation is to be accomplished, it must be performed at the NCOES course.

TABLE 7

NCOES RECOMMENDED READING LEVELS WITH FY 91 AC DEMOGRAPHICS

MOS[1]	SKILL LEVEL	NCOES COURSE	MINIMUM RL[2,3]	% AT OR ABOVE[4]	OBJECTIVE RL	% AT OR ABOVE
11B	1-2	PLDC	10	66.51		
	3	BNCOC	10	74.87		
	4	ANCOC	10	75.33		
	5	SMC	10	69.25	12	22.08
13B	1-2	PLDC	10	40.22		
	3	BNCOC	10	57.91		
	4	ANCOC	10	61.97		
	5	SMC	10	72.12	12	24.94
31C	1-2	PLDC	10	77.53		
	3	BNCOC	10	78.18	11	50.90
	4	ANCOC	10	100.00	12	27.27
	5	SMC	10	76.69	12	22.06
63B	1-2	PLDC	10	42.68		
	3	BNCOC	10	68.38		
	4	ANCOC	10	66.88		
	5	SMC	10	70.03	12	17.29

NOTES:
1. MOS selected from ARI Research Note 89-16, Academic Skills for NCO Job Performance and Career Development.
2. Reading level (RL) derived from GT score conversion table in USAPIC, Soldier Demographics, 1991.
3. Minimum and Objective RL derived from TRADOC, NCO Leader Self-Development Career Maps (DRAFT).
4. Percentages of Active Component soldiers attaining Minimum and Objective RL derived from USAPIC, Soldier Demographics, 1991.

This situation is not unique to NCOES. In fact, it appears to be the rule rather than the exception at all levels of Army training. At the Army War College for senior officers, pretesting in writing is done to determine candidates for remediation. The Army War College began developing and providing communicative skills bibliographies when they found a large percentage of entering students to be deficient in communicative skills.

OBSERVATIONS

During the course of this investigation, a variety of observations were made that bear merit for discussion. They fall under three general categories: Policy, doctrine, and training.

Policy

There is no Army standard for the communicative skills of NCOs in the sense that accession, school selection, promotion, and retention decisions are made with any direct measure of communicative skill performance. The TRADOC standards (as provided in TRADOC Regulation 250-25 and ST 22-2) provide Army-wide goals or objectives. GT and ASVAB scores are among the criteria used to set accession and initial MOS selection. High school degree or GED score is a promotion criterion.

Doctrine

There are six dimensions of doctrinally-related concerns which impact on, and may be impacted by, NCO communicative skills: 1) AirLand Operations doctrine, 2) equipment modernization, 3) force structure reductions and manpower utilization, 4) interdependence with sister services and allies in joint and combined operations, 5) interdependence with increasingly critical Reserve Component (RC), and 6) decentralized and distributed training execution.

Airland Operations. AirLand Operations doctrine, as described in TRADOC Pamphlet 525-5, introduces a high level of complexity in planning, preparation, and execution. Multiple campaign strategies for forward deployed deterrent forces, reinforcement, contingency forces, and peacetime competition forces across the conflict continuum must be executed by the same units. New dimensions, such as Theatre Ballistic Missile Defense, Deception Operations, and Deep Attack, have been added to an already complex battlefield plate. Contingency operations and continuous operations in joint and combined warfare will characterize the nature of battle in the future. Lethality of precision munitions and the tempo of combat will force NCOs to take charge of platoons and companies as officers become

casualties. Fratricide will be a constant fear. NCOs who can not comprehend or deliver clear instructions (orally, digitally, and in writing) will be a problem rather than a solution.

Equipment modernization. The initial modernization effort begun in the early 1980s is nearing completion. Every new system fielded since 1981 is more complex to operate, maintain, and repair than the system it replaced, with the exception of operation of the M-1 Tank. As new capabilities are introduced by Unmanned Aerial Vehicles, the Army Tactical Command and Control System, the Comanche Helicopter, the Joint STARS, Intelligence and Electronic Warfare systems, the Paladin Howitzer, Non-Line-Of-Sight Antitank Missile, and directed energy weapons, NCOs must be prepared to fight and sustain possibly more sophisticated and complex systems.

Force structure reductions and manpower utilization. As the Army reduces end-strength, its flexibility will be severely tested. A premium will be placed on NCO self-development. Additionally, NCOs will be required to adapt to rapid changes in mission and equipment and to increased operational readiness and unit training requirements.

Interdependence with other services and allies in joint and combined operations. Increasing interdependence on other services and allies will require NCOs to understand joint and combined operations and tactics; communicate effectively using joint terms, definitions, and procedures; and speak and understand foreign languages -- at least at the field operational level. Additionally, NCOs must be prepared to conduct joint training and serve on Mobile Training and Security Assistance Training Teams in the continental United States and overseas.

Interdependence with increasingly critical RC. The National Guard and Army Reserve will fight with the Active Component (AC) in any future conflict. They must be trained by, and trained with, an increasingly smaller group of active Army NCO trainers. RC NCOs, in turn, must also be effective communicators to optimize limited training time, adapt to control problems of dispersed units, cope with high duty position turbulence within their units, and respond to mobilization and deployment requirements inherent to the RC. The RC must also be prepared to fight on the joint and combined AirLand Operations battlefield with modernized equipment.

Decentralized and distributed training execution. As the Army gets smaller, an increasing proportion of its training will take place in units through distributed training and self-development. This will place extreme stress on NCOs who have not

attained objective levels of communicative skills while having an increased training load to develop their subordinates.

Training

Consideration should be given to part-task assessment using a variety of test instruments and interactive computer-based systems, as required, to measure the full task (or its objectively testable components). Leader Assessment and concurrent communicative skills training and education can also be used in combination with this approach.

Leader Assessment, a viable tool being used in Cadet Command, may be applied to communicative skills. This may be particularly useful for subtasks requiring subjective performance evaluation (for example, briefing techniques bearing, appearance, or distracting mannerisms). It can also be used to correlate judgment with performance and for task-related versus academic performance assessment.

Training and testing communicative skills concurrently with other training and education appear to be one way to improve the quality of instruction and level-up the students without significantly increasing resources. This is particularly applicable to formal resident or distributed training courses and may also be applied in unit NCO development programs. The individual instructor or senior NCO leader is in the best position to recommend remedial training/Basic Skills Education Program (BSEP). The NCO would then have self-development responsibility fixed. Commanders can be held responsible to assure appropriate support is provided.

CONCLUSIONS

Findings from this investigation suggest the following:

- Measuring communicative skills competencies is not a new subject; however, there continues to be considerable disagreement on how to proceed.
- The Army has several of the pieces that may be useful to the communicative skills program already in place; however, based on the disjointedness of previous efforts, it appears that there is no inventory of these pieces.
- The communicative skills research appears to be coupled with other research; however, each project appears to be performed independently.

RECOMMENDATIONS

The conclusions of this investigation lead to the following recommendations:

- Continue the Research
- Develop statistics for instruments based on an Army population
- Develop a Research Architecture and Methodology
- Examine Communicative Skills From a Manpower and Personnel Integration (MANPRINT) Perspective

The following paragraphs detail these recommendations.

Continue the Research

The major conclusion drawn from this investigation is that there are instruments in existence that measure some of the communicative skills to the Army standard. A remaining issue in this line of research is the feasibility of developing and/or adapting instruments.

One line of research is to examine the feasibility of developing a computer-based adaptive test. Preliminary results using the ASVAB as an example have been encouraging (Moreno et al., 1983). Moreno et al. found that results from computerized adaptive versions of selected ASVAB subtests correlated as well with initial ASVAB scores as did ASVAB retest scores. It is quite possible that this line of research can be extended to communicative skills testing as well. Brown and Kincaid (1982) found that through an iterative process, they were able to combine Word Knowledge (WK) and Paragraph Comprehension (PC) scores from the ASVAB to provide a composite score useful as a predictor of an individual's reading grade level. Questions that arise are: 1) Can the WK and PC subtests from the ASVAB be successfully converted to a computerized form; and 2) can subtests of the ASVAB be successfully used as diagnostic instruments for writing, speaking, and/or listening as well?

Two reasons to pursue this line of research are security and cost-effectiveness. Security is a major issue in test development and administration. If test information or samples can be obtained by unauthorized parties, the instrument is not

secure. It is more difficult to compromise a computer-based test than a paper-based test because of access limitation.

A second reason to investigate computer-based tests is cost-effectiveness. Although it is often more expensive to develop computer-based than paper-based tests, administration and revision are less expensive.

This investigation actively avoided a review of existing computer-based writing aids since there is no foundation for their use as testing instruments. However, it does not require a great deal of imagination to suggest that computers can be used to test and score writing, listening, and/or speaking competencies. Software already exists to aid writers. This software can likely be revised to provide reliable and valid measurements. Similarly, voice-activated computers are increasing in number. Over time, voice-activated computers can be developed and used to measure speaking and listening skills.

During this investigation, the communicative skills components of the Army Correspondence Course Program (ACCP), the BSEP, and the Job Skills Education Program (JSEP), as well as NCOES, were examined. Given the nature of the Army-stated overall goals and objectives, it may be to the Army's advantage to further explore these courses with a view toward consolidating the communicative skills elements of these programs into a single program with built-in pre- and post-testing.

Develop statistics for instruments based on an Army population

Few instruments that the Army uses to measure writing have been normed using a sample drawn from the Army (**Note:** The **BASE** was normed and validated by ETS). It is quite possible that the Army has all of the tools it needs. The only requirement remaining is to provide a set of statistics consistent with the Army requirements.

The Army should determine the criteria to which NCOs should perform and then test to that (or those) level(s). An area of controversy that remains is, "To what level should an NCO perform?" Before any test can be accepted for use, this crucial question should be addressed.

From a review of the literature, it seems plausible that scales drawn from the ASVAB will correlate well with any of the instruments mentioned in this investigation. The ASVAB requires a reading capability as do all of the communicative skills instruments evaluated in this investigation. These relationships should be studied and described.

Develop a Research Architecture and Methodology

It appears from the review of the literature that past efforts have been disjointed. There is a strong need to articulate the overall goals and objectives of such research and then continue within the context of these objectives. For example, one result of this investigation is a realization that this research is coupled with the **Action Plan** Recommendation 18 (career Maps). Future researchers must understand the nature of the relationship and how the communicative skills program will be implemented. The only way to determine that which is useful from that which is not is through a coordinated, contiguous, and continuous effort. Specifically:

Identify all communicative skills requirements by task. This can be done by reviewing the results of the task analyses completed by ARI. A principal components factor analysis will yield inter-MOS commonalities and discriminators, among which will be communicative skills. The result of this analysis will be a greater understanding of task-specific communicative skills requirements.

Inventory tools that are currently available. This includes communicative skills courses taught throughout the Army as well as other tools. From this investigation, it is clear that the Army already has many of the tools necessary to implement a communicative skills program. Some of these tools are being used for other purposes (for example, assessment centers, currently used for leadership development, could also be used to measure communicative skills). Some tools are not utilized or are under-utilized (for example, Electronic Information Delivery System Authoring Software System for Interactive Simulation and Training (EIDS ASSIST) could be used to develop communicative skills courseware). However, the extent of this cannot be determined until a full inventory of potential candidate tools along with their custodian, use, and utilization is provided.

Develop a model. Models are used in an attempt to explain behavior. Models can take a variety of forms from a factor analysis, multidimensional scaling, or simple linear regression to a multiple regression or decision tree format. A linear regression model is simple to explain while explaining the most systematic variance without extensive justification.

Communication is a higher-level cognitive skill composed of a variety of factors or dimensions. For example, in order to complete the most basic response to a question, the responder must first perceive the question, interpret it correctly, and decide how to respond before executing a response. Thus, a model

of communicative skills would include information processing as one dimension or factor.

There are a variety of dimensions that can be included in communicative skills, such as interpersonal abilities, cognitive style, and library skills. The important question in model building is what is the optimum number of factors and loadings that explain the greatest amount of individual difference (systematic variance)?

There are three criteria for an effective model: Necessity (is the factor really necessary to explain proficiency in communicative skills?); adequacy (does this factor add substantially to an explanation of proficiency in communicative skills?); and parsimony (is there a simpler model that will explain a greater amount of variance in proficiency in communicative skills?).

Test the model. The only way to determine a model's success is through rigorous testing. Testing will not only validate the model but will also suggest where fine-tuning needs to be performed.

From the model building and the testing process, a construct or constructs of communicative skills will fall out as natural by-products. An arbitrary decision will have to be made at some point regarding the desirability of a single construct or multiple constructs. These constructs will then open themselves to further testing in an iterative process.

Examine Communicative Skills From a MANPRINT Perspective

The Army emphasis on communicative skills as a common leader task is congruent with the Army "whole-man" or MANPRINT policy and procedures. MANPRINT is the Army program to consider human systems integration early in the materiel acquisition cycle. Its two major outcomes are early influence in systems design and reduced life cycle costs. The six MANPRINT domains (Manpower (M), Personnel (P), Training (T), System Safety (SS), Health Hazards (HH), and Human Factors Engineering (HFE)) potentially relate to the communicative skills of writing, speaking, and listening.

Potential communicative skills and their domains issues for MANPRINT consideration include:

Target Audience Description (MPT). This will aid both the Government and industry to match the requirements for

communicative skills with the demographics of the actual user, operator, maintainer, repairer, supporter, or leader.

Leader Assessment (T). This will aid the institutional trainer and unit chain of command in identifying and remediating communicative skills of leaders and potential leaders.

Risk Assessment, Risk Management, and SS/HH Analysis. This will aid in determining crew pairing and composition based on the degree of individual risk factors associated with the ability to communicate effectively.

Audio System, Human-Computer Interface, and Visual Information Display Design (HFE). This will aid the design engineer in optimizing communicative skill-dependent system specifications and interfaces to the demographics of the target audience.

Summary. To integrate communicative skills into MANPRINT considerations, performance measurement instruments must be identified or developed. A relationship must be established with instrument measures and communications-related task performance. The correlations of the resultant variables of these instruments with other measures, such as ASVAB scores or reading levels, must be identified.

The ability to communicate clearly and effectively is a prerequisite to leader success and fundamental to leader development. As Army materiel and automated information systems become increasingly more complex, operator and support personnel communicative skills also become increasingly more critical. The increasing emphasis on joint and combined operations requires increasing the facility with multi-service technical terms and foreign languages. Fundamental to these dynamics is the individual soldier and leader who can write, speak, and listen effectively.

APPENDIX A

APPENDIX A

LIST OF BREVITY CODES AND ACRONYMS

AA	Aptitude Area
AC	Active Component
ACCP	Army Correspondence Course Program
ACES	Army Continuing Education System
ACSP	Army Communicative Skills Program
ACTP	American College Testing Program
AFQT	Armed Forces Qualification Test
AFRAT	Air Force Reading Abilities Test
AI	Artificial Intelligence
AMA	American Medical Association
ANCOC	Advanced Noncommissioned Officer Course
APA	American Psychological Association
ARI	Army Research Institute
ART	Academic Remedial Training
ASCO	Army Communicative Skills Office
ASVAB	Armed Services Vocational Aptitude Battery
AWP	Army Writing Program
BASE	Basic Army Skills Education
BNCOC	Basic Noncommissioned Officers Course
BSEP	Basic Skills Education Program
CAI	Computer-Assisted Instruction
CAT	Culturally Appropriate Testing
CCAI	Communication Competency Assessment Instrument
CELT	Comprehensive English Language Test
CGSC	Command and General Staff College
CONUS	Continental United States
CRES	Computer Readability and Editing System
DLI	Defense Language Institute
DLT	Directorate of Language Training
DOD	Department of Defense
DPPS	Dantes Principles of Public Speaking
EAS	Employee Aptitude Survey
ECT	English Composition Test
EIDS ASSIST	Electronic Information Delivery System Authoring Software System for Interactive Simulation and Training
ERIC	Education Research Information
ESL	English as a Second Language
GED	General Educational Development

GFM	Government Furnished Material
GT	General Technical
HFE	Human Factors Engineering
HH	Health Hazards
IRT	Item Response Theory
IVI	Interactive Video Instruction
JSEP	Job Skills Education Program
LAB	Literacy Assessment Battery
LTL	Long-Term Listening
M	Manpower
M-PLUS	Memphis - Project Literacy U.S.
MANPRINT	Manpower and Personnel Integration
MLA	Modern Language Association
MOS	Military Occupational Specialty
NCO	Noncommissioned Officer
NCOES	Noncommissioned Officers Education System
NLD	Naval Leadership Development
NTIS	National Technology Information System
OCP	Oral Communication Program
OE	Open-Ended
P	Personnel
PC	Paragraph Comprehension
PCS	Permanent Change of Station
PLDC	Primary Leader Development Course
PMT	Psychomotor Tasks
POC	Point of Contact
POI	Program of Instruction
PSI	Personalized System of Instruction
RAT	Receiver Apprehension Test
RC	Reserve Component
RGL	Reading Grade Level
RL	Reading Level
SAT	Scholastic Aptitude Test
SCA	Speech Communication Association
SL	Skill Level
SMA	Sergeants Major Academy
SMC	Sergeants Major Course
SNCO	Senior Noncommissioned Officer
SPEAK	Speaking Proficiency English Assessment Test

SQT	Skill Qualification Test
SS	System Safety
ST	Student Text
STEP	Sequential Test of Educational Progress
STL	Short-Term Listening
T	Training
TABE	Test of Adult Basic English
TABE-A	Test of Adult Basic English - Advanced
TESOL	Teachers of English to Speakers of Other Languages
TOEFL	Test of English as a Foreign Language
TOWL-2	Test of Written Language - Second Edition
TRADOC	Army Training and Doctrine Command
TRIP	The Research Instruments Project
TSWE	Test of Standard Written English
TWE	Test of Written English
USAF	U.S. Air Force
USAPIC	U.S. Army Personnel Integration Command
VISTA	Videodisc Interpersonal Skills Training and Assessment
WBLT	Watson-Barker Listening Test
WK	Word Knowledge
WRAT-R	Wide Range Achievement Test - Revised

APPENDIX B

NCOES Task List

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND
FORT MONROE, VIRGINIA 23651-5000

October 16, 1991

REPLY TO ATTENTION OF

Training Development and
Analysis Directorate

MANDEX, Inc.
Canon Place Professional Offices
11828 Canon Boulevard, Suite H
Newport News, VA 23606

Dear Mr. Corson:

In response to your letter dated September 10, 1991, the Government has made final delivery of the required Government furnished material (GFM) for Delivery Order #0017, except for items 17, 18, and 19 (Enclosure 1). Mr. Carl Dolmetsch at CSC has agreed to review these items in Mr. Shepherd's office the week of October 14, 1991. Enclosure 1 is a revised GFM list.

In addition, the Government is delivering a revised task list (Enclosure 2). Please review the task list, initial in line 23 of Enclosure 1 to indicate that you have received this task list, and return a copy to me by October 18, 1991.

Now that the required GFM has been delivered, you should have everything required to complete the final delivery order performance plan and commence work for this delivery order.

If you have any questions, please feel free to call me at (804) 728-5589.

Sincerely,

Naomi L. Robinson

Naomi Robinson
Contracting Officer's
Representative

Enclosures

Copy Furnished:

Colonel Robert E. Seger, TDAD

STANDARDS	PLDC	BNCOC	ANCOC	SMC
WRITING STANDARDS				
1. Well organized and clear enough for the reader to understand in a single, rapid reading.	x	x	x	x
2. Written in complete sentences, without fragments and run-ons.	x	x	x	x
3. Written in standard, grammatical English, with few, if any, errors and without slang, jargon, or inappropriate diction.	x	x	x	x
4. Written in conformance with the rules of capitalization and punctuation.	x	x	x	x
5. Spelled correctly, with few, if any, spelling errors.	x	x	x	x
6. Use the active voice, (Army Style).	x	x	x	x
7. Identify the bottom line up front.	x	x	x	x

WRITING TASKS	STDS	PLDC	BNCOC	ANCOC	SMC
1. Write Sentences. Write a variety of clear and concise sentences on one or more military topics.	1-7	x	x	x	x
2. Write a Paragraph. Write a simple, unified paragraph consisting of one thesis sentence and at least five detailed sentences.	1-7	x	x	x	x
3. Write a Paper. Write a paper by organizing information, grouping related information into paragraphs opening with the main point, and sticking to what the reader needs.	1-7	x	x	x	x
4. Write a Special Purpose Paper. Correctly write a research paper that involves solving a special problem or justifying a decision.	1-7			x	x
5. Proofread and correct a written work using the rules of grammar, mechanics, usage and spelling.	1-7	x	x	x	x

SPEAKING STANDARDS	PLDC	BNCOC	ANCOC	SMC
1. The presentation will be delivered at a volume and speed that is appropriate to the audience and topic.	x	x	x	x
2. The speaker will maintain correct posture, bearing, and eye contact.	x	x	x	x
3. The pronunciation will be clear and easy for listeners to follow.	x	x	x	x
4. The grammar and word choice of the student will reflect standard English, with few if any grammatical or usage errors.		x	x	x
5. The speaker will avoid distracting barriers to effective communication.	x	x	x	x
6. Speech organized in accordance with Chap 3, ST 22-2.	x	x	x	x
7. Content supports main idea of speech/oral presentation.	x	x	x	x

SPEAKING TASKS	STDS				
1. The soldier will answer the telephone clearly and correctly, will conduct an effective telephone conversation, and will clearly transmit the message orally.	1,3,4	x			
2. Deliver a well organized speech to a group. (Deliver a message, assign tasks to groups or individuals and deliver an information briefing).	1-7	x	x	x	x
3. Deliver a Performance Oriented Training Session including task, conditions and standard.	1-7	x	x	x	x
4. Modify delivery of oral communication to meet needs of audience.	1-5	x	x	x	x

LISTENING STANDARDS		PLDC	BNCOC	ANCOC	BMC
1. Demonstrate active listening and give appropriate feedback.		x	x	x	x
2. Ask questions to clarify garbled message.		x	x	x	x
3. Follow instructions by correctly completing tasks assigned orally.		x	x	x	x
LISTENING TASKS	**STDS**				
1. Demonstrate understanding and remembering of the meaning of verbal communication by following a series of oral directions, instructions or commands.	1-3	x	x	x	x
2. Take notes from a short briefing on a military topic and list all main ideas, key points, and directions.	1-2	x	x	x	x
3. Organize and summarize (orally or in writing) pertinent information from a series of orally delivered garbled passages.	1,3			x	x
4. Perform a task following a performance oriented training session.	1-3	x	x	x	
5. Evaluate message content.	1-2	x	x	x	x

WHEN IT SHOULD BE SATISFACTORY 1-Research 2-Plan 3-Draft/Run Through 4-Revise 5-Proof/Dress Rehearsal

---

SUBSTANCE

1 ____ RELEVANT: to purpose? to audience?
1 ____ doesn't waste their time?
2 ____ FOCUSED: on a single controlling idea?
2 ____ appropriate scope?
2 ____ clear, simple?
1 ____ JUST ENOUGH: information, evidence?
1 ____ relevant questions accounted for?

ORGANIZATION

3 ____ INTRODUCTION: states controlling idea?
3 ____ * sets stage before controlling idea?
3 ____ * announces the major parts?
2 ____ DEVELOPMENT: controlling idea analyzed?
2 ____ major parts defined and simple?
2 ____ not too few? not too many?
2 ____ sequenced for best effect?
2 ____ major parts: properly analyzed?
2 ____ evidence: detailed and convincing?
3 ____ useful transitions and summaries?
3 ____ *CONCLUSION: returns to controlling idea?
3 ____ * summarizes major parts?
3 ____ PACKAGING: fits controlling idea, purpose?
3 ____ * correct format?

*consider this when necessary

STYLE

4 ____ COHERENT: paragraphs?
4 ____ sentences?
4 ____ word choice: exact?
4 ____ tone: implication, feeling?
4 ____ active voice primarily?
4 ____ EFFICIENT: paragraphs?
4 ____ sentences?
4 ____ word choice: simple? brief?
4 ____ * visuals: relevant? organized?

FOR SPEAKING ONLY

4 ____ voice: enunciation, rate, pauses?
4 ____ body language: eyes, face, hands?
4 ____ poise: control of self and situation?
4 ____ setting: use of equipment, locale?

CORRECTNESS

5 ____ CONVENTIONAL grammar?
5 ____ spelling?
5 ____ punctuation?
5 ____ PROFESSIONAL appearance?
5 ____ FOR SPEAKING ONLY: pronunciation?

APPENDIX C

APPENDIX C

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APPENDIX D

APPENDIX D

ANNOTATED BIBLIOGRAPHY

The annotated bibliography makes extensive use of abstracts taken in whole or in part from the following automated databases: Education Research Information Clearinghouse (ERIC) on Reading and Communication Skills, Modern Language Association (MLA), National Technology Information System (NTIS) and the American Psychological Association's (APA) PsychLit. It is divided into four sections. A general section (communicative skills and method issues) is followed by separate sections for writing, speaking, and listening. If an article or book overlaps classifications, it is forced under the category of "best fit." Some references did not contain complete citations. Content overrode form as it was determined that it was more important to provide the information, incomplete as it may be.

General

AF Pamphlet 13-2 (1985). **Tongue and Quill: Communicating to Manage in Tomorrow's Air Force.**

Air Command and Staff College (1988). **Are We Teaching Senior Noncommissioned Officers What They Really Need to Know? Student Report.** Maxwell, AFB, AL: Air Command and Staff College.

The aim of this project is to determine if the Senior Noncommissioned Officers (SNCO) Academy is meeting its purpose. This determination will be made by an analysis of data supplied by the Air University and the SNCO Academy. SNCOs have been part of the USAF for about 30 years. These SNCOs were and are an extension of the NCO corps, and they took a portion of officer positions and responsibilities. Are we educating these individuals to adequately carry out their duties? This report concludes there are two major areas where SNCO Professional Military Education is falling short: Communicative Skills, and Leadership and Management.

Anastasi, A. (1982). **Psychological Testing.** New York: Macmillan.

Bangert-Drowns, R.L. (1989). **Research on Wordprocessing and Writing Instruction.**

In response to critics' charges that use of the word processor may have a detrimental effect on writing, this study identified and analyzed 20 published studies that used experimental and control groups to compare conventional writing instruction (using handwriting) with instruction using the word processor. Five types of outcomes were analyzed: (1) number of revisions; (2) composition length; (3) students' attitudes toward writing; (4) basic writing skills (e.g., spelling, punctuation, and grammar); and (5) overall quality of written documents. Because a true meta-analysis was not possible using the available studies, calculation of effect sizes was supplemented with a narrative summary procedure. In spite of the various pitfalls that plagued the studies, word processing still proved to be a beneficial addition to writing instruction. Word processing appeared to increase students' enjoyment of writing and stimulate them to compose longer documents. Unexpectedly, it was found that word processing also tends to improve performance of basic writing skills. The securest finding, which came from 13 of the 15 studies that examined overall quality of writing, was that students instructed with word processing produced papers of better quality than students who produced handwritten papers. On the basis of these findings, it can tentatively be concluded that the word processor operates as an unsophisticated instructional tool (i.e., it instructs as it is being used) although it does not explicitly stimulate metacognitive activity.

Barton, P. & Kirsch, I. (1990). **Workplace Competencies: The Need to Improve Literacy and Employment Readiness.** Washington, DC: Department of Education.

Profiles literacy and educational requirements for the workforce.

Battelle Columbus Labs. (1988). **Description and Evaluation of the Army Communicative Skills Program. Final Technical Report,** Research Triangle Park, NC: Battelle Columbus Labs.

The Army Communicative Skills Program is a recent effort by the Army to improve the writing, speaking, and reading effectiveness of all personnel. This report describes the program, the writing standard it mandates, the programs of instruction it offers, and its precursor, the Army Writing Program. The report also evaluates the potential of the program and considers its relevance to the missions of the U.S. Army Research Institute.

Bejar, I. (1984). Educational diagnostic assessment. **Journal of Educational Measurement**, 21, 2, 175-189.

Critically reviews the literature with a demand for tests with more informative and diagnostic results than presently exist. Argues that existing static models may not be appropriate given the dynamic and sequential nature of diagnostic assessment.

Benedict, M. E. (1988). **A Comparison of Survey Length With Reading Difficulty and Selected Recruit Characteristics for the 1987 USAREC Survey of Active Army Recruits. (Research Report 1475).** Alexandria, VA: U.S. Army Research Institute.

Benson, B. (1991). Effective tests: Let them write! **English Journal**, 80, 2, 74-79.

Outlines the importance of essay tests as a method of learning and discovery. Suggests ways of helping students approach essay questions, how to determine what information is necessary for a complete answer, and how to fulfill those requirements.

Bircher, A. U. (1966). **Thinking patterns; A Study of Language as Mirror of Experience and Guide to Action.** University of California, Berkeley, Ph.D. Thesis.

This study investigated relationships among subjective experience, verbal formulations, and effective purposeful behavior in psychiatric nursing. The Quest (an unstructured, short paragraph paper and pencil test using 30 randomly chosen English words) was administered to a random sample of Northern California student nurses. A highly consistent pattern of language use emerged, virtually unaffected by characteristics of stimulus words or their referents, of the respondents, or of variations in educational or professional background. This pattern showed high concern with established standards and directives, repetition of directives, and narrative reporting about environmental aspects, other persons, and time-space relationships, but little or no concern with dynamic or action ideas, aspects of the future, goals to be sought, or higher levels of problem solving and thought. Twelve different patterns of thought were identified and illustrated, and implications and possible uses were discussed for psychiatric nursing, adult education, and other fields.

Bowman, H. and Others (1989). **U.S. Navy Recruit Characteristics on Reading Comprehension and Educationally Related Variables: A Twelve-Month Profile from June, 1988, to May, 1989.** Paper presented at the Annual Meeting of the Mid-South Educational Research Association (18th, Little Rock, AR, November 8-10, 1989).

This study investigated the reading comprehension and educationally related characteristics of the United States Navy's recruit population based on data for selected variables. The variable of primary interest was the recruit's grade level score on reading comprehension; other variables employed in the study were grade level score, years of education, aptitude score, high school graduation status, and month of entry into the Navy. Subjects, 66,296 recruits who entered the Navy between June 1988 and May 1989, took the Gates-MacGinitie Reading Comprehension Tests and the Armed Services Vocational Aptitude Battery (ASVAB). Results indicated that: (1) the typical Navy recruit has completed slightly less than 12 years of education; (2) the mean reading comprehension score placed the composite group near the tenth grade level and the median near the twelfth grade level; and (3) higher percentages of the recruits who scored below the 6.0 reading grade level were high school graduates in the earlier months of the period. Findings suggest that the recruit population remained relatively stable, showing little variability during recent years with regard to means on years of education, reading comprehension skills, and aptitude scores. Findings also suggest that factors for which distributions by month differ include reading grade level scores, high school graduation status, and high school graduation status of recruits who score below the 6.0 reading grade level.

Brown, N. and others (1981). **English as a Second Language Curriculum and Inservice Training.** Salt Lake City School District, UT, Community Education Services.

This handbook contains information to assist English as a Second Language (ESL) teachers and administrators in developing a course for pre- and semi-literate adults, testing, determining criteria for hiring ESL teachers, and training teachers. In the first section, an outline is provided for teaching basic literacy (reading and writing) skills. The course is designed as a guideline for a class for pre- and semi-literate students prior to their integration into beginning ESL classes. A list of suggested vocabulary items is provided. The outline contains objectives and performance indicators for these types of activities: oral pre-literate, pre-reading, symbol identification, numbers, and oral language with written forms.

An annotated bibliography of pre-literate materials is provided. The second section addresses teacher concerns regarding testing and includes an annotated bibliography of various ESL tests. Criteria for hiring ESL teachers are suggested in section 3. Professional competencies and personal qualities are discussed. A three-step interview process is recommended, and some questions for an oral interview are suggested. Designed to aid in training ESL teachers, section 4 presents teaching techniques for three areas: literacy skills, conversation skills, and grammar skills.

Brown, C. & Kincaid, J. (1982). **Use of the ASVAB for Assignment of Gates-MacGinitie Reading Test Levels. Focus on the Trained Person.** Naval Training Analysis and Evaluation Group, Orlando, FL.

This study was conducted to establish ASVAB cutoff scores for the assignment of the appropriate level of the Gates-MacGinitie Reading Tests to individual Navy recruits. The Word Knowledge (WK) and Paragraph Comprehension (PC) scores were combined to provide a composite score useful as a predictor of an individual's reading grade level. Both subtests of the ASVAB measure aspects of reading ability. The Gates-MacGinitie Reading Tests, the testing procedures used in the study, and the data analysis methods employed are described. Three levels (D, E, and F) of the Gates-MacGinitie Reading Tests were used to identify accurate reading grade levels for all recruits. This method made the test an appropriate screening device for remediation programs. The ASVAB (WK+PC) ranges for assigning Gates-MacGinitie Reading Test levels are presented. The results of the iterative testing process that was used to obtain the ranges are also outlined. Recommendations are made to ensure valid reading grade levels will be obtained for all recruits.

Cadet, L. & Heerman, C. (1990). Teaching reading, mathematics and writing in college reading laboratory. **Reading Improvement**, 27, 3, 192-195.

Examines the impact of multiple skills assistance on preservice teachers preparing for standardized tests. Finds significant gains in reading, mathematics, and writing skills. Demonstrates that a single comprehensive skills laboratory operated by a differentiated staff is a sensible method of procuring appropriate intervention for future teachers.

Cudeck, R. (1985). A structural comparison of conventional and adaptive versions of the ASVAB. **Multivariate Behavioral Research**, 20, 3, 305-322.

Twelve structural models of similarity were fitted to data from conventional and computer adaptive test (CAT) batteries measuring the same aptitude in a double cross-validation design. Three of the 12 models, including a multiplicative structure model, performed well, providing support for using CATs as replacements for conventional tests.

Douglas, B. (1986). Relationships among the Armed Services Vocational Aptitude Battery (ASVAB) and the PSAT, SAT, and ACT. **Journal of Studies in Technical Careers**, 8, 3, 199-207.

The author explores ways in which the ASVAB might provide the college admissions counselor with an additional set of test scores that, when used with scores from other standardized tests, might provide a more valid comprehensive evaluation of a student's academic potential.

Dwyer, H.J. (1990). **Diagnostic Evaluation of Composition Skills: Student Choice.**

This study investigated student preferences for either teacher-written or computer-generated marking of written compositions. Ninety-seven high school students typed assigned compositions on a word processor. Three skills pre-selected by the teacher were checked on each composition. Students were randomly assigned to treatments so that, on the first composition, half were marked by the teacher and the other half by a computer-proofing program. On the second assignment, the teacher/computer groups were switched to the opposite type of marking. On a third assignment, students chose either teacher or computer marking. Results of a questionnaire showed that after experiencing both types of marking, 87 percent of the students selected teacher marking over computer marking. The most common reasons for selecting the teacher were the more personalized marking, ease of understanding, the marking of additional areas, and the fact that the teacher is the ultimate grader. Eighty-six percent of the students reported that they liked using word processors, and 93 percent reported that word processors made writing easier.

Eisenberg, N. (1989). **Computers and College Writing. Selected College Profiles.** City Univ. of New York for the Fund for the Improvement of Postsecondary Education (ED), Washington, DC.

This report contains profiles of computer-based writing programs at 49 colleges which were originally submitted for empirical assessment by a 3-year project sponsored by the Fund for the Improvement of Postsecondary Education and the City University of New York. The profiles, representing two-year and four-year, public and private, rural and urban, and small and large colleges, offer advice on topics such as: (1) setting up, expanding, or modifying writing programs with a computer component; (2) how much technical information to give novices in word processing and when to give it; (3) setting up laboratories, the arrangement of furniture, and the scheduling of courses; and (4) using the computer in the English class with a variety of target populations--basic writing students, learning disabled students, students in freshman composition and literature classes, and upper-level students. The descriptions are listed in alphabetical order by the name of the college. Each begins with a summary statement and provides the names and addresses of authors.

Enochs, J. And Others (1983). **The Relationship of Learning Style, Aptitude and Instructional Program Variables to Achievement in the Military Training Environment.**

The purpose of this study was to determine how 16 Navy (self-paced) and 18 Marine Corps (group-paced) Aviation Storekeeper Schools students would perform on the same test, assessing mastery of an identical topic related to the selected variables of learning styles and ASVAB test scores. No significant difference was found between the self-paced or group-paced instruction. Pretest scores indicated that students knew very little information regarding the learning tasks prior to instruction. Those who scored higher on the ASVAB test preferred learning styles utilizing independent work and direct experience in learning. The better achievers also did not need as much specific information on assignments and also did not prefer to work with things. Data in this research study do indicate that students who enjoy learning independently tend to achieve better, which would be expected in classes taught by self-paced methods.

Feth, L.L. (1990). **Demodulation Processes in Auditory Perception. Final Report.** Ohio State Univ. Research Foundation, Columbus for the Air Force Office of Scientific Research, Bolling AFB, DC.

The overall goal of this project is to understand the ability of the human listener to extract information from complex, time-varying sounds such as speech, music, or other environmentally important signals. Specifically, we are interested in the listener's ability to process modulations of frequency and amplitude which are thought to carry the information of such signals. This report represents the continuation and extension of work begun at the University of Kansas in 1987. Preliminary work to determine the temporal acuity of normal hearing listeners for spectrally-dynamic signals is complete. Pilot work on processing of frequency transitions in a 'Proving frequency' paradigm has been started; and work on listeners with cochlear hearing impairments has been added to the scope of work undertaken on the project.

Forehand, G. & Rice, M. (1988). Diagnostic assessment in instruction. **Machine Mediated Learning**, 2, 4, 287-296.

Describes an experimental program of interactive assessment and instruction called Guides to Learning and Instruction, which is designed for use in college level remedial and developmental programs in writing, reading, and study skills. Highlights include microcomputer administration of measurement; response formats; feedback; validity for instruction; and roles of instructors.

Gagne, E. D., Hickey, D. T., Rositol, M. A., Campbell, R., & Dowd, K. J. (1989). **Academic Skills for Noncommissioned Officer Job Performance and Career Development. (Research Note 89-16).** Alexandria, VA: U.S. Army Research Institute.

The greatest overall need is for lower level academic skills, e.g., reading and comprehending clearly stated information and speaking and writing in sentences. Of the three difficulty levels established, most skill requirements are at the basic and intermediate levels. Requirements for advanced skills occur in cases such as assignments to new MOS or as a part of higher grade NCO supervisory and leadership duties. Requirements for academic skills increase as soldiers advance from Sergeant to Sergeant First Class/Platoon Sergeant.

Grafton, F. & Horne, D. (1985). **An Investigation of Alternatives for Setting Second-to-Third Tour Reenlistment Standards. Technical Report 690.** Alexandria, VA: Army Research Institute.

This report investigates the appropriateness of using the General Technical (GT) composite of the ASVAB test as a reenlistment criterion. Three aptitude measures, all ASVAB composites, were compared to measures of proficiency in job performance: the Armed Forces Qualification Test (AFQT), the GT, and the specific Aptitude Area (AA) composites. The GT is similar to the AFQT except for exclusion of a speed test. The AA composites are differential aptitude measures and would be expected to provide a better prediction of performance in specific military occupational specialties (MOS). The predictive ability of each of these composites was analyzed and the results compared. Job proficiency was measured by the Skill Qualification Test (SQT). The univariate and multivariate statistical methods used in this research demonstrated that all aptitude measures were significantly related to performance across MOS and skill levels. This is true even when variables measuring experience and education are included in the analysis. The specific AA composites generally predicted performance better than AFQT or GT. The results suggest that, when no MOS-specific performance measures are available, AA scores are the preferable reenlistment criteria relative to either AFQT or GT scores.

Green, B. (1988). Critical problems in computer-based psychological measurement. **Applied Measurement in Education**, 1, 3, 223-241.

Emerging areas and critical problems related to computer-based testing are identified. Topics covered include adaptive testing; calibration; item selection; multidimensional items; uses of information processing theory; relation to cognitive psychology; and tests of short-term and spatial memory, perceptual speed and accuracy, and movement judgment.

Gutstein, S. P. (1983). **Using Language Functions to Measure Fluency.** Paper presented at the annual meeting of Teachers of English to Speakers of Other Languages, Toronto, Ontario.

The lack of authentic, real-world interaction practice in the ESL classroom is described and discussed, and the ways in which dialogue journals answer this classroom need are detailed. A dialogue journal is an interactive, self-generated, cumulative and functional writing and reading exchange between teacher and

student. The results are reported of a pilot study of the functional nature of the language in dialogue journals of adult Japanese as ESL students. The study used a system of language function analysis developed by Roger Shuy (1982). A definition of written fluency is offered, and the relationship of language functions to written fluency is discussed. Methodological considerations and research suggestions are proposed.

Hammill, D., Brown, L. & Bryant, B. (1989). **A Consumer's Guide to Tests in Print.** Austin, TX, Pro-Ed.

Provides the uninitiated with standard techniques for evaluating tests. Then reviews over 1200 instruments. Among them are tests of writing composition. Of 11 such tests, seven are considered acceptable.

Hannah, L. S. & Michaelis, J. U (1977). **A Comprehensive Framework for Instructional Objectives: A Guide to Systematic Planning and Evaluation.** Reading, MA, Addision-Wesley.

Suggests various ways of gathering data upon which to make an evaluation through clear, specific objectives to point the direction and/or assessment devices which are as precise as possible.

Harman, J. (1984). **Three Years of Evaluation of the Army's Basic Skills Education Program. (Research Report 1380).** Alexandria, VA: U.S. Army Research Institute.

All programs improve soldier's basic skills; however, many soldiers graduate from training without achieving criterion scores on standard tests. Soldiers show most enthusiasm for job-related curricula.

Hopkins, K. & Stanley, J. (1981). **Educational and Psychological Measurement and Evaluation 6th Edition.** Englewood Cliffs, NJ: Prentice-Hall, Inc.

Hoover, M. R. (1982). A culturally appropriate approach to teaching basic (and other) critical communication skills to black college students. **Negro Educational Review**, 33, 1, 14-27.

The Culturally Appropriate Teaching (CAT) method combines the "Back to Basics" paradigm with a culturally oriented approach and has proved to be successful in Black colleges and adult education programs. The CAT method improves the reading levels of students by two years per semester and gives them standard English as a skill in one or two semesters.

Hudson Institute (1987). **Workforce 2000: Work and Workers for the 21st Century.** Indianapolis, IN, Hudson Institute.

Study to project requirements for education and labor for the year 2000. Provides projected demographics of the workforce.

Humphreys, L. G. (1975). Educational uses of tests with disadvantaged students: Addendum. **American Psychologist,** 30, 1, 95-96.

Responds to criticisms by G. D. Jackson (1975) and by E. M. Bernal (1975) of the report by T. A. Cleary et al. on standardized testing with minorities. Support for testing and proper interpretation of test scores is reiterated, since abolishing the use of tests does not abolish the deficits found in some students.

Jackson, G. D. (1975). On the report of the Ad Hoc Committee on Educational Uses of Tests with Disadvantaged Students: Another psychological view from the Association of Black Psychologists. **American Psychologist,** 30, 1, 88-93.

Responds to the paper by T. A. Cleary et al., which states the position of the American Psychological Association's Ad Hoc Committee on Educational Uses of Tests with Disadvantaged Students. The Committee's report reflects the reaction of the vested interests in the testing agency and is blatantly racist in its defense of standardized tests. Not only should a moratorium be imposed on psychological testing, but there should also be government intervention in this area.

Jones, P. & Armitage, B. (1984). **A Comparison of Three Reading Tests for Determining Reading Grade Level of Navy Recruits.** Paper presented at the Annual Meeting of the Mid-South Educational Research Association (New Orleans, LA, November 14-16, 1984).

Having implemented a testing procedure using the Gates-MacGinitie Reading Tests to identify recruits with reading deficiencies, the United States Navy conducted a study comparing the performance of recruits on three different reading tests. A total of 716 recruits completed the comprehension portion of the Gates-MacGinitie Reading Tests, the Tests of Adult Basic Education (TABE), and the Nelson-Denny Reading Tests. The results of the tests showed that the mean scores for the Gates-MacGinitie and the TABE, 11.04 and 10.32, respectively, were significantly different from the 9.65 mean score for the Nelson-Denny. The Nelson-Denny Reading Tests yielded a wider range of variability among the scores of the individual respondents as reflected by the standard deviation than did the Gates-MacGinitie Reading Tests or the TABE. Thus, the Nelson-Denny Tests did not appear to have any advantage over the reading tests currently being used by the Navy to measure recruit reading grade level. The Gates-MacGinitie Reading Tests have a number of test levels designed for particular grade levels, which the TABE does not have. The data suggest that the Gates-MacGinitie Reading Tests are best suited for the Navy's program.

Jones, P. & Medley, V. (1987). **Memphis-Defense Logistics Agency Reading Improvement Program. Report No. 87-2.** Memphis Literacy Coalition, TN; Naval Technical Training Command, Millington, Tenn. Research Branch.

A reading immersion program was conducted for 23 Memphis Defense Logistics Agency employees using the Navy Reading Improvement Program. Participants ranged in age from 30-71 and in schooling from 7 years of formal education to some college. Pretesting with the Gates-MacGinitie Reading Tests yielded scores ranging from 3.0 to 7.4 with a mean reading grade level of 4.9. Four experienced teachers were hired for the program. Participants were taught for full days for two weeks (10 days), in four instructional groups based on test scores. The program used a diagnostic-prescriptive approach to reading instruction. Instructional methods included individual-assisted reading and silent reading, phonics analysis, small group oral reading, and completion of practice exercises. A variety of materials were used. Standardized instruments, questionnaires, and information sheets were used to evaluate the program. Some of the findings were as follows: (1) mean reading scores for the participants increased by 1.9 grade levels; (2) participants indicated a positive attitude toward education; (3) motivation to learn was improved when family and friends were involved in the reading program; (4) the literacy consciousness developed by some learners transferred from the classroom to the home and the workplace; (5) the teachers established an instructional climate

that was conducive to learning; (6) adult learners must feel some input to the content/method of their learning; (7) diagnostic tests and years of formal schooling are not a good indicator of reading skill; and (8) the immersion reading program stimulated many to continue their learning. The study concluded that a reading immersion program can raise the reading level of adults and that it is appropriate for the workplace.

Jones, P. And Others (1987). **Memphis-Project Literacy U.S. (M-PLUS) Reading Improvement Program. Report No. 87-1.** Memphis Literacy Coalition, TN; Naval Technical Training Command, Millington, Tenn. Research Branch.

A study sought to apply the Navy's Academic Remedial Training (ART) program to illiterate adults by concentrating on intensive reading instruction. Administrators from the City of Memphis selected 16 participants based on employee interest and need. They were primarily middle-aged, black males with 4 years of education who earned between $14,000 and $18,000 per year. The learners also brought a sense of past failure in school to their classes. The learners participated in the program for 10 days over a period of 2 weeks, spending the whole day in learning activities. The program used a diagnostic-prescriptive approach to reading instruction. Following testing, instructors used methods such as assisted reading, oral and silent reading, small group reading, and mini-lessons. Many reading skills were taught using the "Detecting the Sequence" materials from Barnell Loft, Ltd., and community-based materials, such as newspapers. Five volunteers made up the staff; all were veteran teachers or Navy-trained instructors. Standardized instruments, interviews, questionnaires, and observations were used to evaluate the program. Some of the findings were: (1) learners had physiological disorders that interfered with learning; (2) the learners had a short attention span; (3) learning materials must be selected carefully; (4) instructional personnel must foster independence in learners; and (5) adult learners became mutually helpful, gained self-esteem, and expressed a desire for further education. The study concluded that the Reading Improvement Program can be adapted for older civilian learners and that further tests should be made.

Koehler, L. E. (1967). **Basic Education for Adults: A Report of the California State Committee on Basic Education.** Sacramento, CA, California State Dept. of Education.

Adult basic education encompasses four stages: (1) introductory, for the illiterate who is learning to read but who must also learn to listen and communicate; (2) elementary, for those with a foundation in communication skills who must develop vocabulary and social competencies and explore occupational interests; (3) intermediate, with emphasis on further skill development based on individual educational and occupational goals; and (4) developmental, with courses leading to high school diploma and vocational training. Readiness for each stage can be assessed informally, through nonstandard, teacher-made tests, or through standard tests. Programs can be held in schools or elsewhere, but the site must be accessible with room for small group instruction and individual work. A variety of teaching methods may be used within the laws of adult learning.

Kozol, J. (1985). Literacy instruction in the U.S. military: some reflections on the words of C.P. Snow. **Journal of Education**, 167, 2, 42-49.

Describes the literacy training provided by the Armed Forces as both minimal and dehumanizing, with an overriding emphasis on training young, disadvantaged recruits to perform necessary tasks without any thought or analysis.

Lyle, B. (1988). The GED certificate as an alternative credential in the U.S. Army enlistment process. **Adult Literacy and Basic Education**, 12, 3, 142-150.

Army enlistees (1,894) with General Educational Development (GED) certificates who completed military service were compared with 2,085 GED enlistees who dropped out. Enlistees with GED certificates had higher GED scores and ASVAB subtest scores. It was recommended that GED scores be an integral part of recruitment screening and a permanent part of enlistee records.

Marinelli, D., Ed. (1979). **Competency-based Adult Education/ English as a Second Language Modules: Health.** De Kalb, IL, Northern Illinois University.

This packet contains four competency-based adult education/ESL lessons in the health content area designed for beginning level students. Each lesson revolves around one central character who, in the course of the four lessons, successfully performs four life-coping skills: (1) calling for a doctor's appointment, (2) visiting the doctor, (3) filling a prescription, and (4) going to the Emergency Room. Contents of each lesson include statement

of purpose, list of outcomes, pre-post test with means of evaluation, and suggested instructional resources and activities. Within the instructional activities is a section titled "Required Level of English" specifying what language content the student should be familiar with in terms of reception and production, prior to using the lesson. The lessons are keyed to two major ESL basic texts--New Horizons and ESL--A New Approach for the 21st Century. Each lesson contains some or all of the following skill areas: listening/speaking, reading, writing, computation, problem-solving, and cultural information. Parts of the lesson available in the native language are indicated. Translations are available in the four most common languages in Illinois: Spanish, Vietnamese, Korean, and French.

Mathews, J. & Roach, B. (1983). **Reading Abilities Tests: Development and Norming for Air Force Use.** Brooks AFB, TX, Air Force Human Resources Lab., Manpower and Personnel Div.

This report describes the development and norming of parallel forms of the Air Force Reading Abilities Test (AFRAT) which have been designed for Air Force use as replacements for commercial reading tests. A previous study on service applicants found considerably divergent Reading Grade Levels (RGLs) from different commercial tests for subjects of the same ASVAB ability level. In addition to varying norms, the use of commercial tests has several other drawbacks, including high testing material costs and RGL norms of unknown appropriateness for military personnel. The goal of this effort was to develop reading tests with appropriate norms. Samples of airmen (n=12,938) were experimentally administered reading tests including one or two forms of the AFRAT. After editing, analyses were done to determine the equivalence of the AFRAT forms, their relationships to other tests, AFRAT raw score to RGL equivalents, and training grade validity of AFRAT item types. The two parallel forms of the AFRAT appear to meet administrative and psychometric specifications. AFRAT appears to be a highly reliable instrument and is recommended as a replacement for commercial reading tests.

McNamara, T. (1990). Item response theory and the validation of an ESP test for health professionals. **Language Testing**, 7, 1, 52-76.

Discusses the role of the Rasch model Item Response Theory (IRT) in evaluating two subtests of the Occupational English test and argues for its use in exploring test constructs and in

considering the implications of the empirical analysis presented for the validity of communicative language tests involving speaking and writing skills.

Mitchell, K. (1983). **Cognitive Processing Determinants of Item Difficulty on the Verbal Subtests of the Armed Services Vocational Aptitude Battery.** Alexandria, VA: Army Research Institute.

A model of verbal performance was developed which defined cognitive processes thought to underlie performance on the Word Knowledge and Paragraph Comprehension subtests of the ASVAB. The items from two forms of these ASVAB verbal subtests were rated on five conceptualized cognitive storage processes: (1) perceptual processing; (2) executive or control processing; (3) short-term storage--lexical access semantic, and syntactic analysis; (4) long-term storage of information structures; and (5) selection and execution of the response. The relative effects of the cognitive dimensions on Rasch model item difficulties were assessed for eight groups of Army applicants and personnel, using linear logistic latent trait methods. Analyses suggested that these cognitive processing variables were related to item difficulty. The logistic latent trait models predicted from 17 to 30 percent of the variance in the item difficulty values estimated by the Rasch models for the word knowledge items. However, results for the paragraph comprehension items were inconclusive.

Mitchell, K. (1984). **Verbal Information Processing Paradigms: A Review of Theory and Methods.** Alexandria, VA: Army Research Institute.

The purpose of this research was to develop a model of verbal information processing for use in subsequent analyses of the construct and predictive validity of the current Department of Defense military selection and classification battery, the ASVAB) 8/9/10. The theory and research methods of selected verbal information processing paradigms are reviewed. Work in factor analytic, information processing, chronometric analysis, componential analysis, and cognitive correlates psychology is discussed. The definition and measurement of cognitive processing operations, stores, and strategies involved in performance on verbal test items and test-like tasks is documented. Portions of the reviewed verbal processing paradigms are synthesized and a general model of text processing is presented. The verbal processing model serves as a conceptual

framework for the subsequent identification and assessment of cognitive processing contributions to performance on the verbal subtests of ASVAB 8/9/10.

Moreno, K. And Others (1983). **Relationship between Corresponding Armed Services Vocational Aptitude Battery (ASVAB) and Computerized Adaptive Testing (CAT) Subtests.** San Diego, CA, Navy Personnel Research and Development Center.

The relationship between selected subtests from the ASVAB and corresponding subtests administered as CAT was investigated using a sample of Marine recruits. Results showed that the CAT subtest scores correlated as well with initial ASVAB scores as did ASVAB retest scores, even though the CAT subtests contained only half the number of items. Factor analysis showed the CAT subtests loaded on the same factors as did the corresponding ASVAB subtests, indicating that the same mental abilities were being measured. The Armed Forces Qualification Test (AFQT) composite was predicted equally well from either ASVAB or CAT administrations, even though the CAT contained only three of the four AFQT subtests. CAT requires fewer test items to perform the same task as the current paper-and-pencil ASVAB.

Muckler, F. A., Seven, S., & Akman, A. (1990). **Proposed Method for Military Intelligence Job Ability Assessment (Research Note 90-135).** Alexandria, VA: Army Research Institute.

Noncommissioned Officer Leader Development Task Force (1989). **Action Plan.** Ft. Monroe, VA: U.S. Army, TRADOC.

Otte, G. (1989). What do writing teachers think? **WPA: Writing Program Administration**, 12, 3, 31-41.

Discusses the results of a survey of freshmen composition instructors which focused on how well developmental instruction meshed with instruction in the composition core. Concludes that basic writing courses should give priority to the development of thought.

Oxford-Carpenter, R. & Harman, J. (1983). **English-as-a-Second Language Programs in the Army (Research Report 1354).** Alexandria, VA: Army Research Institute.

Most soldiers in ESL programs were well educated Puerto Rican males, whose English speaking skills were weak. All programs produced gains in English proficiency as measured by the standardized test. The longer the training time, the greater the gains.

Oxford-Carpenter, R., Pol, L., & Gendell, M. (1984). **Demographic Projections to the Year 2000 of Limited English Proficient Hispanic Accessions in the U.S. Army. (Research Report 1349)**. Alexandria, VA: U.S. Army Research Institute.

The U.S. Hispanic population age 17-35 was projected to increase by 36.1 percent between 1980-2000. Hispanic accessions were projected to grow up to 5.8 percent of total accessions between 1980-1990. Puerto Rican males were projected to comprise a significant proportion of ESL eligibles through the end of the century.

Oxford-Carpenter, R. & Schultz-Shiner, L. (1985). **Military Reading Assessment: What Theory Tells Us.** Paper presented at the Annual Meeting of the American Educational Research Association (69th, Chicago, IL, March 31-April 4, 1985).

This paper addresses practical Army problems in reading assessment from a theory base reflecting the most recent research on reading comprehension. Military and occupational research shows that reading proficiency is related to job performance. Reading assessment is a key issue in the Army due to changes in the reading ability levels of the Army population. Three current types of reading theory have important implications for reading assessment in terms of appropriate validity, reliability, norms, and standards: (1) perceptual-cognitive theory; (2) information processing theories; and (3) the emerging interactive-inferential theory. Commercial reading tests used by the Army, such as the Adult Basic Literacy Examination, the Test of Adult Basic Education, the Nelson-Denny Reading Test, and the Metropolitan Achievement Test (Reading, Form D) differ widely in psychometric characteristics and overall quality when evaluated using theory-based standards. The ASVAB correlates highly with various reading tests but should be used with caution as a reading surrogate. The Army should consider using the available alternatives to grade equivalent scores.

Pitts, B. (1988). Peer evaluation is effective in writing course. **Journalism Educator**, 43, 2, 84-88.

Explains that peer evaluation in news writing courses is an effective way to increase the amount of information provided to student writers without adding to an instructor's grading load. Suggests several feedback structures including source questionnaires, grading grids, and directed peer evaluation guides.

Priestley, M. (1982). **Performance Assessment in Education and Training: Alternative Techniques.** Englewood Cliffs, NJ: Educational Technology Publications.

There are seven steps to design an assessment program: 1) define the purpose, 2) identify resources, 3) decide who is to be assessed and when, 4) define what to assess, 5) decide how to assess, 6) draft a preliminary plan, and 7) evaluate the plan. The book continues with types of assessment techniques, test design, actual performance assessment, simulation, observational assessment, paper and pencil and oral assessment, program requirements, and assessment centers and program integration.

Quan, B. And Others (1984). **Microcomputer Network for Computerized Adaptive Testing (CAT). [Final Report, FY81-83].** San Diego, CA, Navy Personnel Research and Development Center.

CAT offers the opportunity to replace paper-and-pencil aptitude tests such as the ASVAB with shorter, more accurate, and more secure computer-administered tests. Its potential advantages need to be verified by experimental administration of automated tests to military recruit applicants whose subsequent training and job performance could be correlated with their CAT performance. A hardware and software system was developed for experimental administration of computerized aptitude tests to military personnel. A network of microprocessors was used, with each testing station including an Apple III personal computer. Eight such computers shared a 10-million byte Winchester disk containing the database of items, programs, and examinee records.

Read, J. (1990). Providing relevant content in an EAP writing test. **English for Specific Purposes**, 9, 2, 109-121.

Considers the question of how best to elicit samples of writing for assessment in an English-for-academic-purposes proficiency test and assure that every test taker has something to write about. Three types of writing tasks are defined and analyzed, and examples are given.

Regional Lab. for Educational Improvement of the Northeast and Islands (1988). **Cutting Edge: R&D Products To Strengthen Curriculum and Instruction.** Andover, MA, Regional Lab. for Educational Improvement of the Northeast and Islands.

This is more than an annotated bibliography. It offers information to teachers and instructors in many subject areas including mathematics, science (interfacing microcomputer software for science laboratories), ESL, oral communication, keyboarding (software), writing, basic skills, test taking skills, vocational education, reading, and social studies. The summaries fall into two categories: (1) abstracts of opinion papers that provide advice and instructional tips for the classroom; and (2) descriptions of program models or products developed in response to a stated problem. Summaries falling into the first category contain a problem statement and a short discussion of some of the solutions to that problem. Summaries in the second category contain a problem statement, a discussion of the research conducted, a brief explanation of the conclusions reached, and a description of the program or product developed.

Richards, T & Fukuzawa, J. (1989). A checklist for evaluation of courseware authoring systems. **Educational Technology**, 29, 10, 24-29.

Outlines technological and cognitive considerations in the selection of authoring systems for writing computer-assisted instruction (CAI) lessons. Topics discussed include hardware selection, documentation, text display, screen appearance, branching and sequencing, text editing, graphics, animation, sound and voice input and output, student records, and feedback.

Rivera, W. & Walker, S. (1987). **Lifelong Learning Research Conference Proceedings** (8th, College Park, Maryland, February 19-20, 1987). Maryland Univ., College Park. Dept. of Agriculture and Extension Education.; Maryland Univ., College Park. Univ. Coll.

Among the 46 papers in these proceedings are the following 36 selected titles: "The Intergenerational Exercise/Movement Program" (Ansello); "Using Computers for Adult Literacy Instruction" (Askov et al.); "Measuring Adults' Attitudes toward Computers" (Delcourt, Lewis); "Issues in Computers and Adult Learning" (Gerver); "Preassessment of Adult Student Interest in Relation to Success in Introductory Computer Courses" (Korhonen, McKenzie); "Self-Initiated Learning Projects of Prison Inmates of the District of Columbia Department of Corrections" (Brown);

"Role of the Adult Educator in the Prisons" (Collins); "Instructional Television Programs for Graduate Professionals" (Baldwin); "Northern Ontario Distance Education Access Network" (Croft); "Development of Distance Education in the United States" (Granger); "Distance Education: Practitioners' Pleas for Research" (Mugridge); "Graduate Education Desires, Detractors, and Determinants for Navy Aviation Officers" (J.D. Smith); "Contact in Telecourses: The Trade-Offs" (Wiesner); "International Programming in the Cooperative Extension System" (Lambur et al.); "Functional Skills--Experiential Learning Outcomes of the Volunteer 4-H Leader" (Howe); "Perceptions of the Effectiveness of 4-H Volunteer Key Leaders as Held by Key Leaders and County 4-H Agents in Ohio" (Richey, K.L. Smith); "Re:Fit: Career Change Options for Well Defined Dislocated Worker Populations" (Heimlich, Van Tilburg); "Defining Human Resource Development" (D. Smith); "Representation Technologies in the Future of Lifelong Learning" (Jackendoff); "Missing Pieces in the Evaluation of Extension Training Programs in Developing Countries" (Jones); "UNICEF: A Children's Program with High Adult Education Impact" (Marsick); "India's Agricultural Extension Development: The Move toward Top-Level Management Training" (Rivera); "Public and Private Sector Extension in Agricultural Development" (Crowder); "A Factor Analytic Study of an Adult Classroom Environment Scale" (Aagaard, Langenbach); "The Scope and Evolution of Hermeneutics and Its Challenge to Lifelong Learning Professionals" (Boucouvalas); "Participatory Modes for Empowering the Disadvantaged" (Cassara); "The Psychological Well-Being and Sources of Stress in Returning Students" (Copland, Yu); "Context and Learning" (Ingham); "Three Forms of Learning in Social Context" (Jarvis); "Informal Adult Experiential Learning--Reality in Search of a Theory and a Practice" (Rossing, Russell); "A Comparison of the Value Orientations and Locus of Control of Adult Learners in Schools of Business and Education" (Londoner et al.); "Adult Experiential Learning: A Grasping and Transforming Process" (Sheckley); "Qualitative Evaluation Research: Issues and Dilemmas" (Fingeret); "Typology of Law-Literate Adults Based on Deterrents to Participation in Adult Basic Education" (Hayes); "Hispanic Participation in Adult Education" (Wallace et al.); "Adult Education Policy: The Missing Link" (Oaklief); "Quality Control in Non-Traditional Education" (Shaw, Fox); "The Uses of Innovative Methodology in Adult Education Research" (Beder et al.); and "Marketing to Adult Learners: Using Focus Group Research to Develop a Marketing Plan" (Rosenbloom, Thole).

Rush, R. (1986). **Job Skills: Basic Literacy Competencies Which Schools Overlook.** Paper presented at the Conference on Learning Disabilities (Cheyenne, WY, April 10, 1986).

The lack of emphasis on occupational literacy competencies in most public school reading curricula leaves students poorly prepared for the demands of the workplace. Most jobs require mastery of the following literacy competencies: technical vocabulary, locating and using information, following directions, and self-monitoring of comprehension and performance during work tasks. While it is not possible to equip students for specific job settings, teachers can help students develop these literacy competencies by using such instructional techniques as semantic mapping, monologing, metacognition, and reciprocal teaching.

Schalow, S. & Mears, J. (1986). **Computer Readability and Editing System (CRES). Programmer's Reference Manual. Technical Report 86-001.**

The Navy has long been aware of a literacy gap existing between the level at which Navy technical documents are written and the reading comprehension level of enlisted personnel. In order to provide guidance in the restructuring of text and the limiting of vocabulary to reduce this gap, the Training Analysis and Evaluation Group developed CRES. This system not only analyzes the sentence construction of various reading materials and determines the reading grade level, but it also provides suggestions for simplification and clarification of the material. Intended to serve as a programmer's reference guide to assist in the implementation, maintenance, and modification of CRES, as well as an aid in its conversion to other languages and machines, this report is divided into two sections: (1) a brief description of the CRES and its major options and sub-options, and (2) a detailed description of the individual programs comprising the system and a commented listing for each program. Eight related reports are listed as references; and appendices include word list definitions and the control file describing each word list data file, a list of programs and data files included in CRES, sample flowcharts for the creation and maintenance of the word lists, and a sample text passage and the output obtained from a CRES analysis of the text.

Scharton, M. (1989). Writing assessment as values clarification. **Journal of Developmental Education**, 13, 2, 8-12.

Offers rationale for assessing entering students writing skills. Argues that locally developed writing skills tests are more valid than commercial tests. Suggests that teachers draw on their own experiences when constructing tests, develop holistic scoring guides, and involve a broad range of educators, parents, and students in scoring the tests.

Schmidt, F. And Others (1988). **General Cognitive Ability vs. General and Specific Aptitudes in the Prediction of Training Performance: Some Preliminary Findings.** Paper presented at the Annual Meeting of the American Psychological Association (96th, Atlanta, GA, August 12-16, 1988).

Recently, there appears to have been an increase in interest in the relative power of general ability and narrower cognitive aptitudes to predict real world performance in training programs and on the job. This area has important practical implications for personnel selection and classification, particularly for large organizations such as the United States military which assigns people differentially to jobs based on patterns of measured abilities. This study examined the ability of ASVAB, forms 8, 9, and 10 to predict training performance, using 10 technical jobs in the U.S. Navy with at least 900 people in each job. Performance was the measured criterion. For one job, Mess Management Specialist, performance was measured as final school grade. The other nine technical jobs were self-paced; the criterion was the number of hours required to complete training. General mental ability alone did about as well as differential weighting at the level of the three general aptitudes (quantitative, verbal, and technical). Using all 10 specific aptitude tests as separate predictors increased validity by about 8 percent. Future analysis will examine the specific values of beta weights and will be testing Hunter's (1983) path models for fit to the data from individual jobs.

Schneider, M. & Connor, U. (1990). Analyzing topical structure in ESL essays: Not all topics are equal. **Studies in Second Language Acquisition**, 12, 4, 411-427.

Topical structure analysis of ESL essay tests identified two topical structure variables, proportions of sequential and parallel topics in the essays, that differentiated the highest-rated essays from the lower-rated essays.

Seddon, G. And Others (1990). A comparison of written and oral methods of testing in science. **Research in Science and Technological Education**, 8, 2, 155-162.

Discussed in this study is whether there are differences in the assessment of student understanding as measured by written tests vs. oral tests. Age and sex differences, as well as the impact of different languages and cultures, were investigated.

Simutis, Z., Ward, J., Harman, J., Farr, B., & Kern, R. (1988,). **ARI research in basic skills education: An overview. Research Report 1486.** Alexandria, VA: U.S. Army Research Institute.

Soldiers who participate in basic skills training have lower attrition and higher retention. Computer and videodisc technology can serve as efficient delivery systems for basic skills training. Significant improvements in learning resulted from training in learning strategies.

Smith, J.B. & Lansman, M. (1990). **Cognitive Basis for a Computer Writing Environment. Interim Report. Oct 86-Oct 89.** North Carolina Univ. at Chapel Hill., Dept. of Computer Science for the Army Research Inst. for the Behavioral and Social Sciences, Alexandria, VA.

This research of cognitive psychologists and composition theorists offers important insights that can guide development of more compatible computer systems. In the sections that follow we first review some of their more important theories and experimental results in order to establish a cognitive basis for a computer writing environment. We then show how those sights influenced key design decisions for a system we are developing. While our system could be used by a variety of writers for many different purposes, it is intended primarily for professionals who write as a part of their jobs. Nevertheless, we believe it illustrates the important relation between cognitive theory and system design and the necessity to consider them together. Our discussion ends with a brief description of our efforts to test both the theoretical basis and the system we have developed in accord with it.

Steinberg, A. & Leaman, J. (1990). **Dimensions of Army Commissioned and Noncommissioned Officer Leadership. (Technical Report 879).** Alexandria, VA: U.S. Army Research Institute.

Steinberg, A. & Leaman, J. (1990). **The Army Leader Requirements Task Analysis: Commissioned Officer Results. (Technical Report 898).** Alexandria, VA: U.S. Army Research Institute.

Steinberg, A. & Leaman, J. (1990). **The Army Leader Requirements Task Analysis: Noncommissioned Officer Results. (Technical Report 908).** Alexandria, VA: U.S. Army Research Institute.

Sticht, T. And Others (1982). **Literacy, Oracy, and Vocational Aptitude as Predictors of Attrition and Promotion in the Armed Services.** Alexandria, VA: Human Resources Research Organization.

A project was conducted to: (1) produce normative data for the Literacy Assessment Battery (LAB), and (2) evaluate the LAB as a potential supplement to the ASVAB for use as a selection and classification instrument for the military services. The distribution of auding and reading skills in the population that applies for military service was first determined by administering the LAB test to more than 4,500 applicants for service; these scores were normed and related to other literacy tests and composite scores of the ASVAB. It was found that auding and reading are highly correlated, indicating that people who are unskilled at reading are the least skilled in comprehending oral language also. However, for the lowest-scoring populations, the lower the reading skill, the more likely the auding skills were better. The predictive validity study showed the value of the LAB for predicting qualification status, predicting attrition, and predicting promotion (although education level emerged as the best single predictor of promotion). It was concluded that understanding the nature of literacy and the relationships of literacy to aptitude assessment can lead to improvements in selection and classification. The LAB should continue to be used in conjunction with the ASVAB to predict success in training schools where the demands for literacy and oracy skills are higher than on the job.

Sympson, J. And Others (1982). **Predictive Validity of Conventional and Adaptive Tests in an Air Force Training Environment. Interim Report.** Minnesota Univ., Minneapolis. Dept. of Psychology for the Air Force Human Resources Lab., Brooks AFB, TX.

Conventional ASVAB-7 Arithmetic Reasoning and Word Knowledge tests were compared with computer-administered adaptive tests as predictors of performance in an Air Force Jet Engine Mechanic training course (n=495). Results supported earlier research in showing somewhat longer examinee response times for adaptive tests in comparison to conventional tests. These longer response times were attributed to the higher relative difficulty of the items in the adaptive tests. Score information analyses showed that the adaptive tests provided considerably higher levels of information than did the conventional tests at all ability levels. Analyses of composite validities also showed significant effects involving adaptive vs. conventional tests, although there

was again a significant interaction involving the adaptive tests. The data thus indicated no significant differences in validities between equal-length adaptive and conventional tests. It is concluded that similar validities for adaptive tests and conventional tests are supportive of the use of adaptive tests in military selection testing because of additional advantages inherent in computerized adaptive administration of ability tests.

Tedick, D. (1990). ESL writing assessment: Subject-matter knowledge and its impact on performance. **English for Specific Purposes**, 9, 2, 123-143.

Focuses on subject matter influences in writing assessments and the extent to which ESL graduate students' writing performance is affected by their knowledge of the subject matter of the assessment topic. Writing performance was found to be superior when the subject matter was well known.

Teichman, M. & Poris, M. (1989). Initial effects of word processing on writing quality and writing anxiety in freshman writers. **Computers and the Humanities**, 23, 2, 93-103.

Reports a study of the initial effects of word processing on essay-writing performance and on writing apprehension. Concludes that college freshmen using word processing showed greater progress in writing performance from pre- to post-essay tests than did those using traditional methods, but they did not show significant difference in writing apprehension.

U. S. Army War College Library (1990). **Communicative Skills: A Selected Bibliography, 4th edition.** Carlisle Barracks, PA, Army War College.

This bibliography, now in its 4th edition, includes notable publications that were added to the U.S. Army War College Library collection since the 3rd edition was published in June 1989, as well as most of the citations from the previous editions. This edition includes references for books, periodical articles, and video and sound recordings for readings that will specifically aid in learning to effectively express one's ideas. Citations are provided to report on: Communicating person-to-person; Public speaking; Basic principles and guidelines for clear writing; Military, business and academic writing; etc.

U.S. Army (1990). **Military Qualification Standards I: Manual of Common Tasks (Precommissioning Requirements. STP-21-I-MQS).** Washington, DC: Headquarters, Department of the Army.

U.S. Army. (1991). **Military Qualification Standards II: Manual of Common Tasks for Lieutenants and Captains. (STP-21-II-MQS).** Washington, DC: Headquarters, Department of the Army.

U.S. Army. (1987). **TRADOC regulation 350-25: Communicative Skills Program.** Fort Monroe, VA: Headquarters, U.S. Army Training and Doctrine Command.

U.S. Army. (1991). **Final Version of Standards and Guidelines, Recommendation 11, NCO Leader Development Action Plan (NCOLDAP). (Memorandum).** Fort Leavenworth, KS, U.S. Army Command and General Staff College, ATZL-SWC.

U.S. Army. (1984). **Contractor's Instructional Guide to Implementation of the U.S. Army NCOES BSEP II.** (Available from Mc Fann, Gray, and Associates, Inc.).

Valencia, Atilano A. (1970). **Instructional Effectiveness of Fifteen Video, Oral English Programs with Non-English Speaking Mexican American, Puerto Rican, and Cuban Adults. 1969-70 Field Study Report.** Albuquerque, NM, Southwestern Cooperative Educational Lab.

The first field testing of the Adult Basic Education Oral Language video tapes, conducted during 1968-69, included five television video lessons and used three testing conditions: a classroom condition with video exposure, a classroom condition with video exposure and follow-up drills conducted by a teacher, and a home condition with video exposure and no drills. Only the home setting treatment (found advantageous in terms of cost) was used in the 1969-70 video field testing program. The testing scheme was designed specifically to determine the effectiveness of 15 ESL video programs among rural adult Mexican Americans in two different geographical areas, urban Mexican American adults in two different geographical areas and time arrangements, and urban Cuban and Puerto Rican adults. It is concluded that the video programs do not tend to effect a dramatic change in attitude toward learning and using English among Mexican Americans, Cubans, and Puerto Ricans, but also is noted that the

majority of the subjects in the experimental population already have a favorable attitude toward this variable. It can be tentatively concluded that, where the population attitude is lowest, greater goals are realizable through the Program. This report includes an outline of the research design, statistical findings, summary, conclusions, and recommendations.

Waters, B. (1989). **Development of a Single DoD Reading Grade Level (RGL) Scale.** Paper presented at the Annual Meeting of the American Psychological Association (97th, New Orleans, LA, August 11-15, 1989).

Research on military reading abilities has shown a direct relationship between reading ability and training and job performance. The objectives of this study were to: (1) measure the reading ability of military applicants using six commonly used reading tests; (2) use the ASVAB as a composite anchor against which the reading tests can be equated; (3) equate each test to the anchor; and (4) recommend an RGL scale for Department of Defense (DoD) use in reporting to the U.S. Congress. Subjects were 20,422 applicants for the armed forces who were tested during a 6-week period beginning on April 13, 1987, on the ASVAB and one of the six reading tests. Scores on the reading tests yielded widely-varying average RGL levels for examinees of equivalent ability. The ASVAB verbal standard score was taken as the anchor, and a conversion table was made for the ASVAB and each of the five reading tests found adequate for equating purposes. An RGL scale was then proposed for DoD use that would allow each branch of military service to use the reading test that best meets its requirements with each converting the scores to the RGL scale for congressional reporting purposes.

White, D.A. & White, R.K. (1991). **Improving Risk Communication Through Interactive Training in Communication Skills.** Oak Ridge National Lab., TN.

This paper describes a workshop in communication and public speaking skills recently conducted for a group of public officials whose responsibilities include presenting risk information at public meetings associated with hazardous waste sites. The paper details the development and execution of the 2-1/2 day workshop, including the development and integration of a 45-minute video of a simulated public meeting used to illustrate examples of good and bad communication behaviors. The workshop uses a mock public meeting video, participatory video exercises, role-playing, an instructor, and a resource text. This interactive approach to teaching communication skills can help

sensitize scientists to the public's understanding of risk and improve scientists' confidence and effectiveness in communicating scientific information.

West Virginia Northern Community Coll (1987). **Workplace 2000 Project. Final Performance Report.** West Virginia Northern Community Coll. for the Office of Vocational and Adult Education (ED), Washington, DC. Div. of Adult Education and Literacy.

West Virginia Northern Community College provided workplace literacy education and training for employees of Weirton Steel Corporation and Union Carbide Corporation. For Weirton Steel, the training included 4,040 hours of instruction in fundamental literacy skills (reading, writing, speaking, and math), oral and written communications (including report writing), problem analysis, decision making, time management, automated data processing using personal computers, manual and automated accounting systems, and interpersonal communications. Weirton participants constituted about one-third of the company's employees. For Union Carbide, there were approximately 96 hours of computer literacy training, 20 hours of communication skills training, 12 hours of interpersonal skills training, and 32 hours of training for instructors. Evaluation of the program revealed that 93.7 percent of the trainees agreed that stated course objectives were achieved, 81.2 percent agreed the courses taught skills directly applicable to the job, 71.6 percent agreed the information and skills learned would enable them to perform their current jobs more effectively, 51 percent reported using the newly acquired skills on their current jobs, 67 percent indicated the training enhanced their opportunity for job advancement, and 50 percent declared they are performing their jobs more efficiently as a result of the training; of the supervisors surveyed, 79.3 percent said the trainees had been able to perform their jobs more effectively as a result of the training.

Writing

Ackerman, T. & Smith, P. (1988). A comparison of the information provided by essay, multiple-choice, and free-response writing tests. **Applied Psychological Measurement**, 12, 2, 117-128.

The similarity of information provided by direct and indirect methods of writing assessment was investigated using 219 tenth graders. A resulting cognitive model of writing skills indicates

that practitioners interested in reliably measuring all aspects of the proposed writing process continuum use both direct and indirect methods.

Bauer, R. & Shlechter, T. (1990). **Evaluation Issues Related to Writing Skills of College Educated Professionals.**

This study addressed the writing of college educated officers compared to their overall performance in an introductory Army course. The effects of an effective writing (communicative skills) program and a remedial enrichment program were also examined. A total of 137 U.S. Army lieutenants, who were students in the 15-week Military Police Officer Basic Course during January through June of 1987, completed both indirect and direct measures of writing skills. The indirect measure was the Test of Standard Written English (TSWE), and the direct measures consisted of six different written exercises. Officers scoring a scaled score of 40 or above on the TSWE were sorted into groups of AC and RC officers and then were randomly assigned to two experimental groups. All officers scoring below a scaled score of 40 had to take the enrichment program. Ninety-eight of the students were placed in the writing enrichment program. The enrichment program significantly improved the writing skills of officers with initially deficient skills. However, the enrichment program improved neither the writing skills of officers initially scoring higher on the initial, indirect measure nor their performance in the overall course. There was a significant relationship between the indirect and direct assessment techniques. The indirect assessments provided a statistically significant predictive measure of overall course averages. The results support the usefulness of remedial writing programs with indirect tests of writing performance; effective writing programs would significantly improve the productivity of college educated professionals.

Benton, S. & Kierwra, K. (1986). Measuring the organizational aspects of writing ability. **Journal of Educational Measurement**, 23, 4, 377-386.

Suggests that writing ability can be measured through cognitive, information processing means using four tasks (anagram solving, word reordering, sentence reordering, and paragraph assembly). Researchers found that a composite score on all four tests was found to have a higher correlation with a holistic measure of writing ability than either the TSWE or any of the individual scores.

Bergholz, E. (1986). **ASEP Communications 1: Effective Military Writing.** Big Bend Community College. (Available from U.S. Army Training and Doctrine Command, Fort Monroe, VA).

Breland, H. & Duran, R. (1985). Assessing English composition skills in Spanish-speaking populations. **Educational and Psychological Measurement**, 45, 2 309-18.

English writing ability of Hispanic college candidates taking the College Board's English Composition Test (ECT) was studied. The performance of three groups on essay and multiple choice portions of the ECT were compared with each other and with performance on the same measures by ECT test takers as a whole.

Breland, H. & Gaynor, J. (1979). A comparison of direct and indirect assessments of writing skill. **Journal of Educational Measurement**, 16, 2, 119-128.

Describes a study to compare the two methods of writing quality assessment. Concludes that both are equally valid and may tap the same skills.

Breland, H. & Lytle, E. (1990). **Computer-assisted Writing Skill Assessment Using WordMAP (TM).** Paper presented at the Annual Meetings of the American Educational Research Association (Boston, MA, April 16-20, 1990).

The utility of computer analysis in the assessment of written products was studied using the WordMAP software package. Data were collected for 92 college freshmen using: (1) TSWE; (2) the English Composition Test of the College Board; (3) verbal and mathematical SAT; (4) two narrative essays; (5) two expository essays; and (6) two persuasive essays. The variables analyzed by WordMAP were used to predict the score on a single essay and a combined score for the other five essays that three human readers would give. In either situation, the computer could predict the reader's score reasonably well. It is not likely that many institutions will choose to assess writing without using human readers, but the fact that assessment of writing skills can be enhanced through software analysis may make it possible to reduce the amount of labor required, perhaps by using only one reader instead of the two or three usually required. Computer analysis also makes possible a level of feedback to students and teachers that is not possible using human readers alone. Five tables contain data from the study.

Breland, H. & Jones, R. (1984). Perceptions of writing skills. **Written Communication**, 1, 1, 101-119.

Examines the questions: (1) What criteria do raters use when making holistic judgments of brief, impromptu essays?, and (2) Do raters judge such essay in the same way they think they do?

Breland, H. & And Others (1987). **Assessing Writing Skill. Research Monograph No. 11.** New York, College Entrance Examination Board.

Six university English departments collaborated in this examination of the differences between multiple-choice and essay tests in evaluating writing skills. The study also investigated ways the two tools can complement one another, ways to improve cost effectiveness of essay testing, and ways to integrate assessment and the educational process. College freshman wrote six essays involving expository, narrative, and persuasive writing skills. They were scored by nine readers using a holistic scoring method. College Entrance Examination Board data files also provided six multiple-choice test scores for most of the subjects, including SAT, TSWE, and ECT. Essay assessment was found to be less reliable than multiple-choice tests, but the use of multiple essays or the combination of essays with non-essay measures alleviated this. Essay testing, even of a single essay, was more costly; it was also reasonably valid despite low reliability. Combination of essay and non-essay measures provided very good predictions of writing ability with non-essay measures losing importance as the number of essay readings increased. This, however, increased cost. To better control cost, it was suggested that fewer readings be combined with a multiple-choice test. It was also recommended that the writing assignments be drawn from work completed in a writing course.

Breland, H. (1983). **The Direct Assessment of Writing Skill: A Measurement Review. College Board Report No. 83-6.** Princeton, NJ: Educational Testing Service.

Direct assessment of writing skill, usually considered to be synonymous with assessment by means of writing samples, is reviewed in terms of its history and with respect to evidence of its reliability and validity. Reliability is examined as it is influenced by reader inconsistency, domain sampling, and other sources of error. Validity evidence is presented which shows reported relationships between direct assessment scores and criteria, such as class rank, English course grades, and instructors' ratings of writing ability. Evidence on the

incremental validity of direct assessment over and above other available measures is also given. It is concluded that direct assessment makes a contribution but that methods need to be developed to improve its reliability and reduce its costs. New automated methods of textual analysis and new kinds of direct assessment in which more than a single score is produced are suggested as two approaches to better direct assessment.

Brock, M. (1990). Can the computer tutor? An analysis of a disk-based text analyzer. **System**, 18, 3, 351-359.

Examines second-language classroom applications of computerized text analysis by ESL writers, suggesting that the Grammatik III disk-based text analyzer may not be a suitable addition to ESL composition pedagogy.

Busch, J. (1988). Factors influencing recommended standards for essay tests. **Applied Measurement in Education**, 1, 1, 67-78.

A panel of 24 public school teachers and 37 college/university faculty members provided recommendations on minimal standards for the essay portion of the National Teacher Examinations Communication Skills Test. Public school judges' recommendations were significantly more variable than were those of college/ university judges.

Chafe, W. (1988). What good is punctuation? **Quarterly of the National Writing Project and the Center for the Study of Writing**, 10, 1, 8-11.

Claims that punctuation contributes substantially to writing effectiveness. Argues that punctuation's primary function is to signal the "prosody" (patterns of pitch, stress, and hesitations) that authors have in mind when they write. Observes that a sensitivity to the sound of written language is essential for the effective use of punctuation.

Dean, R. (1989). **English Language Needs and Preparation for Non-Native English Speaking Army Personnel.** American Inst. for Research, Washington, DC, Washington Research Center. Army Research Inst. for the Behavioral and Social Sciences, Alexandria, VA.

A study evaluated language needs, preparation, and screening among non-native-English-speaking U.S. Army officers and enlisted personnel, focusing primarily on the needs of officers. The purpose was to help determine the minimum competency levels needed on two measures of English proficiency. Evaluation questions guiding the study were: (1) What level of English language ability is needed for success as an officer or enlisted member? and (2) Are English screening and instruction adequate? Results from interviews with service members and their supervisors and supervisors' ratings of service members' job performance are reported. Some data are also drawn from English language tests used for screening. Results indicate that while non-native-English-speaking service members were relatively competent and well-educated in their native languages, some service members found English language deficiencies interfered with their job performance. Conversational skills, pronunciation, and the ability to understand accents, dialects, and colloquial expressions were seen as important, and adequate writing skills were found to be crucial for officers. Screening could be improved by focusing more on skills that are most difficult or most important for non-native English speakers. Increased opportunities to speak English within and outside the classroom and instruction in military document writing were found desirable. Specific recommendations are made.

Gates, R. (1989). Defining and teaching voice in writing: The phonological dimension. **Freshman English News**, 17, 2, 11-17.

Summarizes linguistic research on the sound, shape, and meaning of phrases, and describes several classroom procedures for helping students become aware of the phonological rules underlying spoken English and incorporate that knowledge in developing a written voice.

Greenberg, E. (1989). Some pointers on basic training techniques. **Personnel-(AMA)**. 66, 9, 22-24.

Three experts in the field of basic skills training (David Harman, Diane Kangisser, and Karl Haigler) share their thoughts on giving employees and/or job applicants proficiency tests and, when necessary, remedial training in reading, writing, and mathematics.

Greenberg, K. (1988). Assessing writing: Theory and practice. **New Directions for Teaching and Learning**, 34, 47-58.

Writing is central to learning and to evaluation of student progress. Holistically scored writing samples, portfolios, and evaluative grids provide effective assessments of writing proficiency and show students that writing is an essential communication skill. Writing assignments also can be used to evaluate learning in a discipline.

Gunning, R. (1952). **The Technique of Clear Writing.** New York: McGraw-Hill.

Guthrie, J. & Kirsch, I. (1983). **What Is Literacy in the United States? Reading Competencies and Practices. Technical Report #5.** International Reading Association, Newark, Del. Army Research Inst. for the Behavioral and Social Sciences, Alexandria, VA.

Growing scientific literature provides a perspective of literacy that is at variance with traditional points of view, which see literacy as a unitary, dichotomous, psychological capability that is learned with the appropriate educational opportunity. However, an individual is not easily categorized as literate or illiterate. While the goal is to ensure that every adult will be able to understand all printed materials likely to be encountered in everyday life, it is unreasonable to suppose that there is one measure of a unitary competency that can be partitioned into two levels to divide literates from illiterates. Attempts of this sort ignore the pluralism of the social and occupational conditions in which people live, the diversity of uses for reading, and the variability of demands for literacy within the United States. A better question is, "Do people exhibit activities and competencies that satisfy the demands for literacy in their social contexts?" The answer to this question requires: (1) a description of the demands for literacy within defined social situations, (2) the competencies needed to meet these demands, and (3) the activities or practices of literacy. These sets of information may be juxtaposed to observe the degree of correspondence between the profile of demands and the profile of activities for literacy in a person or group. This correspondence provides a basis for determining the nature and extent of literacy.

Hayes, J.R. & Flower, L.S. (1990). **Expert Planning Processes in Writing. Final Report.** Carnegie-Mellon Univ., Pittsburgh, PA.

This report summarizes research conducted under contract No. 00014-85-K-0423 on the nature of planning processes in writing. Section 1 presents a general characterization of planning based on an integration of planning research in the fields of AI, cognitive science, and writing. This characterization provides a framework for studying planning in writing. Section 2 summarizes two protocol studies designed to identify characteristics of planning in writing. Several differences among expert and novice writing strategies are identified. Section 3 reports two experimental studies of skills which are fundamental to planning in writing. The first explores the writer's ability to judge when the use of a metaphor will help readers to comprehend a text. The second demonstrates that providing writers with topic knowledge can make them insensitive to the readers' need to have that topic knowledge explained to them.

Holt, D. & Eison, J. (1989). Preparing freshmen to take essay examinations successfully. **Journal of the Freshman Year Experience**, 1, 2, 108-119.

College faculty are placing increasing importance on writing across the curriculum and the use of essay tests. Freshman seminar courses provide an ideal opportunity to teach students to take essay tests successfully. This article describes 10 ways faculty can help students improve their writing skills.

Hunter, W. And Others (1990). The effects of using word processors: A hard look at the research. **Writing Notebook: Creative Word Processing in the Classroom**, 8, 1, 42-46.

Reviews research: (1) concerning the use of word processors in improving children's writing; (2) students' attitudes toward writing; and (3) how improvements in writing are measured. Notes that current research should not be accepted at face value. Argues that teachers should seek ways in which the availability of word processors can help students set higher goals for their writing.

Huot, B. (1990). The literature of direct writing assessment: Major concerns and prevailing trends. **Review of Educational Research**, 60, 2, 237-263.

Reviews the literature from a viewpoint that suggests research directs major trends and issues that seek to inform efficient and accurate writing assessment procedures.

Lederman, M. (1988). "Why test?" **Journal of Basic Writing**, 7, 1, 38-46.

Explores the history, motivations, procedures, and the inevitable limitations of testing. Argues that writing program faculty and administrators must clarify and profess their values, decide what they want students to know and what sort of thinkers they should be, and develop tests reflecting those needs.

Leggett, G., et. al. (1988). **Prentice-Hall Handbook for Writers.(10th ed.)**. Englewood Cliffs, NJ: Prentice Hall.

McIntosh, W. (1986) **Guide to Effective Military Writing: A Handbook for Getting Things Written Quickly, Correctly, and Easily**. Harrisburg, PA: Stackpole Books.

O'Shea, J. (1987). Writing apprehension and university tests of writing competence. **English Quarterly**, 20, 4, 285-295.

Argues that writing apprehension can be dispositional, but that it can also arise in response to elements in the writing situation. Discusses the elements in timed writing competence tests that can trigger writing apprehension and hinder effective writing.

Padak, N. & Padak, G. (1988). Writing instruction for adults: present practices and future directions. **Lifelong Learning**, 12, 3, 4-7.

The authors review current practices in writing instruction in adult literacy classes. They observe that students spend little time writing. Innovative teaching activities are mentioned. They discuss goals of writing instruction and how to adapt present practices to meet the writing requirements of the GED Test.

Rozakis, L. (1988). Holistic evaluation: A primer. **Exercise Exchange**, 34, 1, 11-17.

Claims that holistic scoring offers significant advantages over conventional grading systems for: (1) placing students in extra help or enrichment classes; (2) evaluating incoming or transfer students; (3) regrouping existing classroom situations; and (4) providing an expedient measure of writing achievement.

Schroeder, J. And Others (1986). **Videodisc Interpersonal Skills Training and Assessment (VISTA): Overview and Findings, Volume 1. Final Report.** Litton Mellonics Systems Development Div., Fort Benning, GA. Army Research Inst. for the Behavioral and Social Sciences, Alexandria, VA.

The VISTA project was conceived as a means to use computer-assisted leadership training to reduce high personnel costs associated with assessment center training and simulation. Originated by the Army Research Institute's Ft. Benning Field Unit, the research effort included topic analysis, hardware selection, software development, scenario writing, studio production, editing, and videodisc mastering. Final evaluation of the videodiscs included the administration of two tests, one designed to measure the acquisition of leadership skills and the other a subjective preference test designed to measure user acceptance. Nine highly interactive videodisc training scenarios covering 20 leadership problems were produced. The evaluation of the scenarios indicated that the videodisc method resulted in significantly greater learning of leadership principles with the majority of students indicating that a combination of videodisc and role playing would be optimal for leadership training.

Schultz, J. (1986). **Locked Apart, Brought Together/The Power of the Speech Writing Relationship.** Paper presented at the Annual Meeting of the Conference on College Composition and Communication (37th, New Orleans, LA, March 13-15, 1986).

Research from various fields supports the crucial relationship of speech and writing. Experience with the Story Workshop used in composition classes can show how thinking, speaking, listening, reading, writing, recalling, and immediate audience focus can be integrated into every phase of the writing process. Activities must enable students to find subject matter that intrigues and stimulates them and over which they have control. The use of group discussion in semi-circles during topic development allows every nuance of oral telling and audience reaction to be either observable or "hearable" to the audience. Literary forms and models that have a built-in sense of audience, such as letters, how-tos, and speeches, are quickly accessible to beginning college students. Well-coached, effective oral reading provides written language a pleasurable integrative pace and demonstration more closely akin to the way perception, thinking, and language come together and function in the actual act of writing. Recall and comment activities use the power of speech to develop memorable principles of the use of written language out of the stimulated and coached behavioral repertory of the students

themselves. With coaching, while beginning a piece in class, students carry the sense of the immediate audience into the situation where they write alone, fictionalizing the audience, thus stimulating and building their capacity for inner sounding and listening while they write. When reading their in-class writing aloud, students hear immediately the transfer of what occurred in the oral tellings, what occurred in the prewriting mental and oral rehearsal and build-up. In almost every case, there will be effective written language behavior to recognize and build upon, however small.

Starr, D. (1991). Using word processor to evaluate student papers benefits student and instructor. **Collegiate-Microcomputer**, 9, 1, 55-58.

Describes a method that writing instructors can use for evaluating and commenting on college students' composition papers that uses a stand-alone word processor. Software is discussed, the instructor's role is explained, methods of evaluation and marking papers are suggested, and electronic grading is described.

Stevenson, C. (1985). **Challenging Adult Illiteracy: Reading and Writing Disabilities in the British Army.**

The study described in this book was designed to create an overall picture of the type of student found at a school for educationally substandard army recruits in England, to establish the causes of the student's educational backwardness and relate these to linguistic performance, and to compare the effectiveness of the approaches and methods used to alleviate the disabilities. The introduction presents background information including the aims, selection of students, organization, and testing for the study. The remaining chapters discuss: (1) the nature of the illiteracy problem; (2) the basic philosophy of the school and the principles that formed the basis of its teaching doctrine; (3) the relationship of environmental factors to reading achievement; (4) factors appearing to be associated with failure or progress in reading and any real development in academic ability or personality that took place; (5) a specific remedial program carried out as far as possible under controlled conditions; and (6) the study's findings and its implications. The appendixes include a charter of the School of Preliminary Education, a student background questionnaire, test materials and scores, and statistical information.

Terry, R. (1989). Teaching and evaluating writing as a communicative skill. **Foreign Language Annals**, 22, 1, 43-54.

In an effort to encourage the integration of writing as a communicative act in the second language classroom, information is presented about the purposes of writing in the second language classroom, types of writing tasks, proficiency levels in writing, writing activities, and writing evaluation.

Townsend, P. (1990). **Developing Writing Skills in a Speech Writing Course.** Paper presented at the Annual Meeting of the Speech Communication Association (76th, Chicago, IL, November 1-4, 1990).

Speech writing can be an excellent vehicle for helping students develop writing skills. The course described in this paper blends rhetorical principles and practices from public speaking, speech composition, persuasion and public relations with "real world applications." Students work on developing purposeful communication, a consistent and appropriate voice, and a workable system of topic analysis. Writing for clarity is emphasized through work on grammar and punctuation, logic, organization, and some of the rhetorical devices for promoting clarity and retention. Style is always the most difficult professional canon to teach in performance classes. Emotional impact can be heightened by means of discussion of word choice and by checking for mistakes of commission and omission. The speech-writing teacher can promote applied rhetorical criticism by making students editors and critics of each other's work. As effective public discourse is a constant in an inconstant world, the speech writing course can help develop better creators and consumers of public discourse.

U.S. Air Force (1980). **Effective Writing Course.** Washington, DC: Government Printing Office.

U.S. Army (1959). **DA Pamphlet 1-10, Improve Your Writing.** Washington, DC: Department of the Army.

U.S. Army. (1991). **Writing and Speaking Skills for Senior Leaders. (Student Text 22-2).** Fort Leavenworth, KS, U.S. Army Command and General Staff College.

U.S. Army. (1988). **Army Regulation 25-50: Preparing and Managing Correspondence.** Washington, DC: Headquarters, Department of the Army.

Ward, J. (1985). **Speaking, Writing, and the Making of Meaning.** Paper presented at the Annual Meeting of the Conference on College Composition and Communication (36th, Minneapolis, MN, March 21-23, 1985).

By investigating the similarities and differences between speech and writing, teachers can help students mature as writers. The difference between speech and writing in conveying meaning is explained by the degree of context dependence of the utterance or passage. Speech is highly context-dependent because a speaker depends on a listener to assist in filling in meaning, while writing must provide its own context, audience, and explicit meaning. Writing problems may reflect a student's effort to apply inappropriate oral language habits to writing. The writing instructor's task is to move students from the high context-dependence of speech to the relative context-independence of writing. Because of the differences between speech and writing, some inferences can be made to help students achieve context-independence in their writing. Instructors should: (1) see speaking and writing as developmentally and functionally complementary, (2) devote time to requesting clarification or elaboration of ideas, (3) provide inexperienced writers with activities in which the form and function of speech and writing are made as similar as possible, (4) recognize that meaning is more important and should precede developing grammatical context, and (5) realize that some qualities desirable in speech, such as consistency in voice and tone, are desirable in writing.

Speaking

Anson, C. & Miller, H. (1988). Journals in composition: An update. **College Composition and Communication**, 39, 2, 198-216.

This article provides a comprehensive listing of all journals that publish articles related to writing and/or communication.

Arena, L. (1989). Proficiency English language testing of international employees: a case history. In: **Proceedings of the Annual Eastern Michigan University Conference on Languages and Communications for World Business and the Professions** (8th, Ann Arbor, MI, March 30-April 1, 1989).

Developments in one major corporation's ongoing program to evaluate employees' English language proficiency are discussed. The testing program was developed by the multinational E. I. DuPont de Nemours Corporation for use with international employees. The history and rationale for the selection of the five English tests used are outlined; the tests are described; and some sample training recommendations based on test performance are presented. The tests selected include the Test of English as a Foreign Language (TOEFL), Speaking Proficiency English Assessment Kit (SPEAK), a writing sample evaluated according to guidelines for the Test of Written English (TWE), the Preliminary TOEFL, and the Comprehensive English Language Test (CELT). Recommendations for training are based on test scores and focus on improving rapid listening and reading comprehension skills, spoken comprehensibility, and writing abilities. The recommendations are implemented in ongoing training programs in the U.S.

Arenz, D. (1985). A process option for speech pedagogy. **Iowa Journal of Speech Communication**, 17, 2, 13-24.

The "process option" approach for speech students should be expanded through the development of a learning context in which: (1) topic development replaces last minute subject selection through the spoken equivalent of freewriting; (2) the revision process of writing occurs in preparation for delivered speeches; (3) student/teacher interaction maintains a sense of authorship for the student; (4) peer response carries the same importance as teacher response; and (5) the content, form, and nature of the spoken communication is determined by student need rather than by prescription and formula. Writing pedagogy is shifting dramatically from student-centered instruction toward process-centered instruction, thus effecting a similar change in speech pedagogy which is usually teacher oriented. Research in process-oriented writing instruction should include essays and responsive commentary on the subtleties of the learning process, rather than relying entirely on statistical data. In addition, the similarities between writing and speaking should be recognized. Some research has been done to establish the theoretical framework for a process-centered approach to speech instruction and to explore some specific applications to the discipline of speech pedagogy.

Bangs, T. (1985). **Integrating Speech Communication and Composition in the Classroom.** Paper presented at the Annual Meeting of the International Communication Association (35th, Honolulu, HI, May 23-27, 1985).

One way of giving students a sense of audience in their writing is to combine speech communication and written communication in the classroom. If students can be taught to write as they speak, they can perceive their audience to be real people rather than the amorphous "indefinite other" they typically write for in the traditional writing class. The advantage of teaching students to write as they are taught to speak is that writing permits the recursive process better than speaking does. A sophomore speech and writing course offered at the U.S. Air Force Academy (Colorado) teaches students how to use spoken language in both their speaking and writing. Each student gives five speeches during the semester; and the assignments require the students to narrate, define, inform, argue, and persuade. For four of the five assignments, the students must write an essay on the same topic as their speech. The course theme is persuasion, so each assignment emphasizes the persuasive nature of speaking and writing. The unified approach awakens the students to the power of spoken language and helps them keep foremost in their minds the primary purpose of both speech and composition--to communicate an idea to people.

Behnke, R. & King, P. (1984). Computerized speech criticism. **Communication Education**, 33, 2, 173-177.

Describes how a computer can be used to help instructors evaluate classroom speaking. Discusses the value of a computerized system of speech criticism.

Benoit, W. & Moeder, M. (1984). **The Theory of Rhetorical Criticism: A Bibliography.** Annandale, VA: Speech Communication Association.

An updated version of a bibliography which appeared in a 1982 edition of "Rhetoric Society Quarterly," this 132-item bibliography is divided into books and articles and book chapters. The selections date from 1933 through 1989.

Buerkel-Rothfuss, N. & Yerby, J. (1982). **PSI vs. A More Traditional Model for Teaching the Basic Course.** Paper presented at the Annual Meeting of the Speech Communication Association (68th, Louisville, KY, November 4-7, 1982).

A study examined the acceptance and effectiveness of a basic public speaking course that uses a modified Personalized System of Instruction (PSI) approach. Based on behavioristic psychology, PSI stresses mastery learning, self-pacing, the

written word, student proctors, and lectures that motivate rather than just supply essential information. Five PSI sections of 45 to 50 students each were conducted at the same time as 38 traditionally taught sections of 22 students each. During the eighth week of classes, students completed a questionnaire that assessed perceived speaking anxiety, reasons for taking the course, expectations about it, and interest in topics. During the last week of regular classes, a second questionnaire sought the same information as well as other information pertaining to perceived learning from the course and attitudes toward it. Results indicated that students in the PSI sections reported higher levels of perceived learning, higher overall satisfaction with course content and format, lower levels of communication apprehension, and higher cognitive retention of course material than did students in the traditionally taught course sections. Their final grades were also higher.

Clarke, L. (1983). **Improving Oral Communication Skills in the Basic Business Communication Course.**

Recent studies show that training in oral communication skills is one of the primary needs of industry. Among those skills are listening, persuading, and instructing. One reason that oral communication skills are becoming increasingly important is that business, industrial, and government organizations are larger and more complicated than they were 20 or 30 years ago, so employees must work together with more and more people. Another reason is that the diversity in the American work force requires that one be a skilled communicator. Business educators can implement a number of strategies in their basic business communication classes to make oral communication an integral part of their classes. First, students should be encouraged to talk in class as early as the first meeting. Second, students should give short presentations to the class as it progresses through its first weeks, although these do not necessarily have to be assigned letter grades. Third, grades should be given on formal oral presentations during the final weeks of class. Fourth, one of the short presentations should be videotaped and evaluated by peers. Fifth, listening skills should be incorporated as an important part of oral communication. Finally, teacher's lesson plans should allow for impromptu speaking opportunities. These strategies will improve a basic business communication course by making it more exciting and significant.

Clevenger, T. (1983). Toward a definition of communication: Speech communication in the context of the field of communication. **Association for Communication Administration Bulletin**, 46, 21-23.

Defines speech communication as a field of study and application in which diverse strands are drawn together to clarify and to enhance the practice of speaking-listening and related processes.

Crapse, L. (1983). **Instructional Improvement Speech Handbook. Secondary Level.** Florence, SC, Florence School District 1, SC.

Recognizing that speech is an important component of the language arts and that the English curriculum is the most natural place for speech skills to be fostered, this handbook examines several methods of developing speech competencies within the secondary school English classroom. The first section, "Looking at Speech," examines the nature of speech, the origins of speech, functions of speech, history of speech instruction, current speech instruction, the importance of speech skills, and state the standards for oral communication. The second section, "Oral Communication," examines the models of the communication process of Berlo, Schramm, and Allen. It also discusses major communication functions, audience context, and the speaking process. The final section, "Speech Activities," discusses the planning of speeches, types of speeches, gathering and evaluating information, developing a speech, rehearsing and delivering speeches, discussion techniques, debate, and oral interpretation. Among the appendixes are a list of oral communication skills needed in business and industry, guidelines for minimal competencies in speaking and listening, speech functions and corresponding behaviors, and the Massachusetts Department of Education Assessment of Basic Skills Speaking Assessment Ratings Guide (related to the Massachusetts Improvement Policy).

Cronin, M. & Grice, G. (1991). **Speech Communication Across the Curriculum: Development of the Radford University Oral Communication Program.** Paper presented at the Annual Meeting of the Southern States Communication Association (Tampa, FL, April 1991).

The Oral Communication Program (OCP) was established in 1988 at Radford University, Radford, Virginia, as a comprehensive program of oral communication across the curriculum. The OCP has generated student and faculty involvement using a variety of information outlets such as meetings, retreats, and

communication-intensive courses. Faculty from the Department of Communication have initiated several projects to develop innovative ways of providing instruction to students and faculty, to give faculty consultative assistance, and to create methods and materials for classroom use. The program has introduced the use of Interactive Video Instruction (IVI) programs and has begun production of three interactive video modules on overcoming speech fright, effective introductions for a speech, and presenting an argument. Budget information, dissemination of results, expansion activities, and plans for the future are also discussed.

Curtis, D. & Hansen, T. (1984). **Business Communication: An Annotated Bibliography.** Annandale, VA: Speech Communication Association.

Focusing on oral communication and presentational speaking, this 34-item annotated bibliography contains sources of information that are primarily concerned with communicating in contemporary business and professional settings.

Decker, W. (1982). An investigation of the procedures used to assign students to remedial oral communication instruction. **Communication Education**, 31, 2, 131-140.

Suggests that the verbal score on the SAT is not an adequate criterion for assigning students to remedial communication instruction. Concludes that the communication skills deficit model demonstrates the capacity for consistent measurement of communication skills if evaluators are trained to use the same decision-making criteria.

Div. of Vocational Education (1984). **Communication Skills II. Using the Telephone, Conducting a Meeting, Making a Speech.** Columbus, OH, Ohio State Dept. of Education, Columbus. Div. of Vocational Education.

This student workbook contains two instructional units, the first dealing with using the telephone and the second dealing with conducting a meeting and making a speech. Addressed in the unit on telephone usage are using the telephone directory, placing a call, answering the telephone, and taking messages. The unit on conducting a meeting and making a speech includes materials about organizing a club or group, conducting club meetings and activities, developing a constitution or by-laws, being a good club officer, preparing and delivering a speech, and

understanding the communicative value of nonverbal signs. Each unit includes some or all of the following: an introduction, a list of skills that students will have mastered after completing the unit, a unit outline, vocabulary exercises, and passages of instructional text with related student activities.

Elbow, P. (1985). The shifting relationships between speech and writing. **College Composition and Communication**, 36, 3, 283-303.

Examines the cognitive processes associated with speech and writing.

Gray, P. (1989). **The Basic Course in Speech Communication: An Historical Perspective.** Paper presented at the Annual Meeting of the Speech Communication Association (75th, San Francisco, CA, November 18-21, 1989).

The history of the basic course in speech communication in college shows that it has maintained a continued emphasis on public speaking and that change has been slow. A review of the literature revealed that the course has been typically viewed as a public speaking course taught in self-contained sections with one instructor responsible for teaching 20 to 25 students. While theoretical rifts abound, major deviations from the predominance of public speaking are found in isolated situations only. Throughout the 1960s and 1970s, the emphasis did not change; however, a significant change has taken place in the basic course as a result of pragmatic issues. Economics, in particular, have encouraged the use of more graduate assistants and have forced departments to look for ways to increase enrollments without sacrificing quality. In the 1980s, experimentation was done with a new teaching technique called Personalized System of Instruction (PSI)--a format which uses large groups of students (often 70 or more) with one instructor. Continued experimentation with new formats for instruction and research into optimal learning of communication skills appear to be called for.

Hagge, J. (1984). **Strategies for Verbal Interaction in Business Writing.** Paper presented at the Annual Meeting of the Conference on College Composition and Communication (35th, New York City, NY, March 29-31, 1984).

Business writers often use, or may be taught to use, strategies for verbal interaction analogous to those they use in conversation. Unfortunately, much current composition theory discounts analogies between verbal interaction in speaking and writing, and therefore, disallows applying the results of linguistic investigations of spoken language use to writing. However, the logic of business writing resembles that of ordinary conversation because in both cases discourse participants have available a shared situational context from which to draw meaning-producing inferences. Since business writers and readers interact with one another, they must acknowledge the requirements of "face" in these interactions through linguistic politeness forms. Because students already know how to use a wide range of politeness markers that signify the requisite level of courtesy for any given situation, they need only be shown how they can make that pragmatic competence explicit so that they can apply it to their business writing tasks.

Haynes, W. (1987). **Communication for Scientists and Engineers: A 'Computer Model' in the Basic Course.** Paper presented at the Annual Meeting of the Speech Communication Association (73rd, Boston, MA, November 5-8, 1987).

Successful speech should rest not on prepared notes and outlines but on genuine oral discourse based on "data" fed into the "software" in the computer which already exists within each person. Writing cannot speak for itself, nor can it continually adjust itself to accommodate diverse response. Moreover, no matter how skillfully performed, as though it were spontaneous and interactive, the predetermined speech can never in fact be either. Basic communication classes, particularly for scientists and engineers, should primarily address the restoration of an oral experience of the shared and sounded word. The categories of data that the mental software of the orator needs to draw on are: (1) thorough knowledge of the subject; (2) audience awareness; (3) the speaker's own oral style; and (4) an understanding of the theory behind the communication process. Perhaps the greatest evidence that can be offered to stress the virtue of orality is that the computer only works well in consort with its human belief system. The contemporary human computer possesses the capacity to evolve and act on an infinite body of potential intentions.

Hammond, J. (1987). **Oral and Written Language in the Educational Context.** Paper presented at the World Congress of the International Association of Applied Linguistics (Sydney, New South Wales, Australia, August 11-16, 1987).

It is useful to stress the similarity of the linguistic system that underlies oral and written language, but the whole language approach fails to take into account the real and significant differences that exist between oral and written language and the different purposes for which they are used. Children need explicit guidance and support in making the shift from oral to written language. A classroom exercise in which students gather and discuss a topic involving their own experiences and then are asked to write about it exemplifies the problem. The implicit assumption is that oral and written language is the same, and all students have to do is write down what they said. However, the children do not see any difference in purpose for the oral and written activities. There is no sense of the purpose of writing as forming a context-free and permanent record of events. In developing effective literacy programs, an extra step is required. A lesson could begin with oral discussion then provide children with information about what a successful text, written for a particular purpose, actually looks like. Only after such information would the children attempt to write texts themselves.

Ilyin, D. (1976). **Assessing Oral Communication in Adult Program English Second Language Classes.** Revised edition of paper presented at the annual meeting of the Teachers of English to Speakers of Other Languages (TESOL), New Orleans, LA, March 3-7, 1971.

Even though modern methods of teaching emphasize listening and speaking, seldom are students of English tested in a standardized way on their ability to communicate through these skills. Many people learn to communicate well enough to conduct daily affairs in a new language, yet are unable to read, write, or speak any educated form of it. They are often required to take tests designed for native speakers or for foreign students entering colleges and universities in the U.S. Such tests are inappropriate and too difficult for most students enrolled in adult school ESL courses. These students need tests designed and developed on adult school ESL students. They especially need tests that measure their ability to understand and communicate orally--even if inaccurately. This paper describes the development and field testing of an oral interview designed to assess oral communication in a contextual setting. While the test is easy to administer, examiners must become familiar with its uniqueness. It is hoped that the interview will be useful to ESL programs, basic education programs, industry, and employment agencies in more objectively assessing foreign and second language speakers' oral levels of English proficiency.

Jay, A. (1970). **Effective Presentation.** London: Management Publications.

A "cookbook" text for presentation skills. The checklist provides evaluation points.

Katz, A. And Others (1985). **The Use of Paper and Pencil Testing in a Statewide Placement Testing Program.** Paper presented at the Annual Meeting of the Speech Communication Association (71st, Denver, CO, November 7-10, 1985).

The first stage of a three-stage speech placement test that can be used by individual campuses of the University of Wisconsin is discussed in this paper. The following applications of this speech theory test are described first: to exempt students from the basic communication course, to place students in an appropriate communication course, and to demonstrate competency. The paper then focuses on administration of the two 42-item placement tests for public speaking and interpersonal communication and on joint administration of these tests. The paper also points out that, although four different methods of taking the test have been developed, it is necessary to work individually with faculty on each campus to develop a set of guidelines for interpreting test scores; that it will be imperative to continually update and secure the tests; and that the use of this test provides the University of Wisconsin system with a consistent and accurate gauge of student readiness for learning in the area of communication.

Krampien, P. (1990). **Speech Communication Makes a Difference.** Paper presented at the Annual Meeting of the Speech Communication Association (76th, Chicago, IL, November 1-4, 1990).

Speech communication can make a difference in the teaching of English Language Arts and in improving basic teacher communication skills. A wealth of research indicates that instruction in speaking is not only important in itself but also highly influential in the development of other language arts competencies. Preparation in both English and speech communication can help English teachers incorporate the following items into lessons: (1) skills in both classroom and small group discussion; (2) functional communication competencies and good listening skills; (3) methods for helping students become more competent at each stage of development in oral and written communication; and (4) skills in diagnosing and assessing student strengths and weaknesses in both written and oral communication.

Preparation in speech communication can often be a deciding factor in getting an English teaching position in which the teaching or coaching of forensics or debate is desired. Furthermore, a knowledge of speech communication (for example, simple tips on language delivery in the classroom) can improve teaching in all subject areas.

Krashen, S. D.; and others (1976). Adult performance on the SLOPE test: More evidence for a natural sequence in adult second language acquisition. **Language Learning**, 26, 1, 145-151.

Discusses the results of the administration of the SLOPE test, a measure of oral production, to 66 adult speakers of ESL.

Lawrence, R. (1983). **Making Connections between Speaking and Writing.** Paper presented at the Annual Meeting of the Midwest Writing Centers Conference (Iowa City, IA, October 21-22, 1983).

By emphasizing the similarities between writing and speaking, writing instructors can help students generate coherent, natural sounding prose. Instructors can point out the connections between speaking and writing by: (1) reading good student writing aloud, (2) having students read their work aloud in class, (3) encouraging students to develop sensitivity to the sound of their writing through reading aloud to themselves or reading into a tape recorder, (4) developing purposeful class discussions as part of prewriting activities, (5) having students give oral tellings in class, (6) assigning writing emphasizing the writer's audience, and (7) performing student dramatic works.

Liggett, S. (1984). The relationship between speaking and writing: an annotated bibliography. **College Composition and Communication**, 35, 3, 334-344.

Presents annotations of materials representing the range of current cross-disciplinary theories and research connecting speaking and writing. Topics range from cognitive psychology, linguistics, and rhetoric to learning theory.

Liggett, S. (1985). Speaking/writing relationships and business communication. **Journal of Business Communication**, 22, 2, 47-56.

Examines how speaking/writing relationships help and hinder communication. Suggests ways to make business communication students aware of differences between speaking and writing. Identifies research needed to further the understanding of these relationships in business communication.

Loacker, S. (1981). **Alverno College's Program in Developing and Assessing Oral Communication Skills.** Paper presented at the Annual Meeting of the Speech Communication Association (67th, Anaheim, CA, November 12-15, 1981).

The rationale and procedures for assessing students' oral communication skills at Alverno College (Milwaukee, Wisconsin) are outlined in this paper. Since the curriculum at Alverno emphasizes ongoing performance assessment as an integral part of the learning process and as an effective measurement of educational progress, the discussion focuses on the six levels or stages specified for each ability required for graduation from Alverno. Six levels of oral communication ability are listed and discussed: (1) assessing one's own speaking ability, (2) speaking with analytic consciousness, (3) speaking effectively (advanced training), (4) integrating effective speaking within the framework of academic disciplines, (5) integrating theory with effective speaking, and (6) speaking effectively within a multimedia context and with advanced content. For each of these performance levels, learning objectives and evaluation criteria and methods are offered. Excerpts from publications by Alverno faculty are attached to indicate the general context for developing and assessing oral communication skills at the college.

Marlin, J. (1990). **Like It or Not, You Are Judged by Your Words.** Paper presented at the Annual Meeting of the Speech Communication Association (76th, Chicago, IL, November 1-4, 1990).

Debaters have several poor word-choice and word-formation habits that detract from their ethos as advocates as well as from the clarity of their arguments. In many instances, debaters, to their competitive and educational detriment, employ habitual phrases, questionable redefinitions, and poorly coined new words. Many currently popular debate phrases, terms, and usages derive from the hardware of debate: the flowsheet, and the evidence card. A second important etymological source of "debatespeak," and the hardest to uproot, is precedent. There are methods, however, that coaches and teachers can use to improve debaters' lexical habits. Good speaking habits can be developed through

practice rounds and drills. Coaches should avoid using debate jargon or theoretical terms, and should critique debaters' written arguments. The close relationship between thinking and good language use is a knowledge that is critical to any effective speaking or writing, in or out of debate.

Marshall, J. & Durst, R. (1991). Annotated bibliography of research in the teaching of English. **Research in the Teaching of English** 24, 2, 205-221.

Note: The citation reference given is just for the most recent in a series that is published regularly, semi-annually. Specific subsections list articles which have appeared during the preceding 6-month period in a variety of categories including assessment.

McDermott, S. (1986). **Persuasion: A Selected, Annotated Bibliography.** Annandale, VA: Speech Communication Association.

Designed to reflect the diversity of approaches to persuasion, this annotated bibliography cites materials selected for their contribution to that diversity as well as for being relatively current and/or especially significant representatives of particular approaches. The bibliography starts with a list of 17 general textbooks on approaches to persuasion. The 19 research references that follow were selected to represent the variety of approaches used and contexts investigated for persuasive effects including interpersonal studies, public studies, and mass contexts.

McLaughlin, G. (1989). How to make the speech connection work. **English Journal**, 78, 4, 51-53.

Advocates reinforcing the connections among speaking, listening, reading, and writing in the English classroom. Discusses the author's frustrations experienced in integrating speaking and listening with reading and writing instruction and suggests several ways to deal with these frustrations.

Meyers, G. (1985). The scholar who helps me teach better: Adapting Zoellner's "talk-write" to the business writing classroom. **Bulletin of the Association for Business Communication**, 48, 2, 14-16.

Points out how the work of Robert Zoellner helps students to achieve professional competence as speakers and writers. Discusses the "talk-write" model, which focuses on speaking and writing as behaviors and uses reinforcement to shape effective writing.

Morreale, S. (1990). **"The Competent Speaker": Development of a Communication-Competency Based Speech Evaluation Form and Manual.** Paper presented at the Annual Meeting of the Speech Communication Association (76th, Chicago, IL, November 1-4, 1990).

As part of the Speech Communication Association (SCA) 1990 Summer Conference on Communication Competency Assessment held in Denver, Colorado, one work group worked on the development of a speech performance evaluation form and/or process grounded in and driven by the competency paradigm. Prior to and during the conference, the group developed a description of a manual for in-class speech evaluation at the college sophomore level to be used for both the evaluation of public speaking skills in the classroom, and pre-(testing out) and/or post-(exit) assessment of speaking performance. At the conference, eight competencies regarding public speaking were identified, and performance criteria/ standards by which each competency could be evaluated were articluated. Following the conference, a pilot speech evaluation form was developed utilizing the eight competencies and attendant criteria. That instrument and criteria presently are being refined, and appropriate reliability and validity testing is planned. It is the intention of the work group to develop a manual for speech evaluation grounded in the communication competency literature and containing, among other components, "The Competent Speaker" evaluation form. That manual will be submitted to the Educational Policies Board for SCA approval and distribution.

Morrisey, G. (1968). **Effective Business and Technical Presentations.** Menlo Park, CA, Addison-Wesley.

A "cookbook" text for presentation skills. The appendixes provide excellent criteria for evaluation.

Ochs, D. (1986). **A Delightful Couple: Writing and Speaking Together.** Paper presented at the Annual Meeting of the Western Speech Communication Association (Tucson, AZ, February 15-19, 1986).

The rhetoric program at the University of Iowa is an integrated skills program based on four assumptions: (1) writing and speaking are modes of communication; (2) writing and speaking are equally important; (3) writing and speaking can be taught together; and (4) the administration, relevant faculty, and teachers must believe that writing and speaking can best be taught in an integrated format. If a university decides to implement an integrated skills program, problems may arise in the areas of logistics, staffing, politics, and pedagogy. However, these problems can be solved. Although no research yet exists proving that students in integrated courses develop better skills than students in composition courses, studies have shown that teachers who have been involved with integrated courses prefer the integrated concept. Finally, learning speaking and writing skills together helps students overcome weaknesses inherent in single skill instruction.

Pearson, J. & Nelson, P. (1981). **The Influence of Teacher and Student Gender on Grading in the Basic Public Speaking and Interpersonal Communication Courses.** Paper presented at the Annual Meeting of the Speech Communication Association (67th, Anaheim, CA, November 12-15, 1981).

A study examined the effects of gender on academic achievement in speech communication courses. In order to test the research hypothesis that females would receive higher grades than males, 2,190 grades given by 74 speech communication teachers over a 5-year period were examined. The analysis of variance placed gender of the instructor, gender of the student, and type of course (public speaking or interpersonal communication) as the dependent variables, while course grade was the independent variable. The results showed that females received higher grades than males regardless of the course in which they were enrolled. The type of course did not yield significantly different grading patterns, nor did female and male instructors appear to grade in a significantly different manner. However, further examination of the trends in the analysis of variance indicated that male instructors tended to grade slightly lower than female instructors in both kinds of classes, and grades in the interpersonal communication course tended to be slightly higher than the grades in the public speaking course.

Rafoth, B. (1989). **Speaking-writing courses--a survey of writing program administrators.** Paper presented at the Annual Meeting of the Conference on College Composition and Communication (40th, Seattle, WA, March 16-18, 1989).

A survey investigated the type and frequency of integrated speaking-writing courses or programs at college-level institutions. The purpose of the survey was to gain a sense of the extent to which courses integrate speaking and writing (where speech is valued not merely as a convenience for conducting classroom business, but as a medium for cultivating the cognitive, social, and aesthetic qualities that engender good writing); to gather sample syllabi and course materials; and to identify some of the obstacles which program administrators perceive in developing such curricula. Surveys were mailed to 498 college-level writing program administrators; the response rate was 44 percent. Forty percent of respondents indicated that their institutions offered courses in which at least 10 percent of instructional time was devoted to speaking and writing activities integrated in a deliberate, theory-based manner. Another 45 percent reported no such courses. The most frequent type of speaking-writing activity reported was "group discussion for invention or revision," followed by "oral presentations that also involve a writing assignment." Other common responses included peer tutorials, interviews, and reading essays aloud.

Reid, L. (1986). **Collaborative Learning: Bridging the Gap between Speaking and Writing.** Paper presented at the Annual Meeting of the National Council of Teachers of English (76th, San Antonio, TX, November 21-26, 1986).

Collaborative learning (the construction of knowledge through interaction of pairs or small groups of students) is an effective tool for helping students bridge the gap between speaking and writing. To accomplish this type of learning, students must practice talking and writing in a small group structure. Concrete teaching experience has shown that small groups can be extraordinarily successful, do not always work, and sometimes do not seem to work when they really do. However, the educational value of collaborative learning makes it worth teachers' efforts. When students are in small groups, they participate, risk exploring new ideas, learn from one another, expect success because a group is tackling the task, and learn important social skills. To make these groups work, a classroom climate must be created in which students are free to explore ideas within a structure based on the following guidelines: (1) keep the groups small (3 to 5 students), (2) know each group's task in advance, (3) designate a student in each group to record events, (4) physically separate groups as much as possible, (5) do not intervene unless it is necessary to keep the discussion moving, (6) join in if asked, and (7) plan ahead. With careful structuring, the need for control is greatly minimized.

Rubin, D & Bazzle, R. (1981). **Development of an Oral Communication Assessment Program: The Glynn County Speech Proficiency Examination for High School Students.** Brunswick, GA, Glynn County Board of Education.

The rationale, development, and structure of a high school oral communication assessment program are described in this paper. Following information on competency based education and the need for developing and testing students' oral communication skills, the development of an assessment instrument by the Glynn County (Georgia) school system is discussed. This discussion reports on the selection of primary and alternate speaking tasks (primary--speaking before a simulated public hearing, alternate--participating in a job interview); how raters were trained to evaluate speech performances; how cutoff scores were established; what resources were needed to conduct the assessment; and the effects of the use of the assessment instrument on student and staff development during a pilot program. Appended materials include guidelines, forms, and records used by students and teachers during the pilot assessment program.

Schafer, J. (1983). Linguistic descriptions of speaking and writing and their impact on composition pedagogy. **Journal of Advanced Composition**, 4, 85-106.

Examines three phases of linguistics' influence on writing instruction. Suggests that the production of context-independent, explicit texts is too narrow a goal and that helping students imitate speech in their writing is a proper goal for an advanced composition class.

Shaughnessy, M. & Marquez, M. (1991). **Thirty Days and Thirty Ways towards Better Public Speaking.**

The ability to speak in various public speaking situations is imperative for success in school, business, and industry. Aspects which improve public speaking skills include preparation, organization, paying attention to the "nuts and bolts" of the speaking situation, identifying the topic, using invigorating language, watching other public speakers, reading books on the topic, being energetic, using humor, keeping and maintaining the audience's attention, giving the right amount of information, using the voice well, using emphasis and visual aids, using good posture, assessing the scene, and using gestures. Also helpful are skills regarding talking to (not at) the audience, convincing them, dealing with problems, building rapport, using variety,

dealing with interruptions or non-receptive audiences, asking for feedback from the audience, practicing the speech beforehand, organizing the notes, and dealing with questions.

Sussman, L. (1988). Managing to speak by managing the speech. **Personnel (AMA)**, 65, 12, 60-64.

The essence of giving a good speech is to view it as a managerial problem/opportunity and apply the four management functions to resolve it. These four functions are: (1) planning; (2) organizing; (3) motivating; and (4) controlling.

Trank, D. (1983). **An Overview of Present Approaches to the Basic Speech Communication Course.** Paper presented at the Annual Meeting of the Speech Communication Association (69th, Washington, DC, November 10-13, 1983).

Recent surveys have shown that the basic speech communication course, designed to introduce students to the discipline and to meet their basic proficiency needs, is alive and growing rapidly. While this is generally good news, a more critical examination reveals a variety of issues in need of resolution. A significant amount of course time is given to public speaking and related topics with little variation. The dominant course pattern involves a single, nearly autonomous instructor teaching each class. The surveys have noted that in recent years there has been a shift toward more communication-oriented, less public-speaking focused classes and toward staffing with graduate assistants and junior faculty. The surveys have not, however, provided much information on the importance of communication courses to institutions or to a liberal arts education. Faculty attitudes toward the basic course show a fundamental lack of interest, and there is little information on the philosophy behind content and approaches. Even the most drastic criticisms have failed to create change, partly because the basic course fulfills certain traditional obligations that other courses, departments, and instructors are not anxious to add to their responsibilities, and partly because few departments are able to support and initiate radical changes in their approach to the basic course. The paper concludes with six suggestions for bringing about meaningful revision to the basic course: (1) frequent regional and national surveys need to be conducted, (2) the speech communication discipline and departments need to reestablish their commitment to the basic course, (3) curriculum decisions need to be based on valid educational goals and research, (4) basic course directors should be given increased

support to experiment, (5) publishers and authors should be encouraged to provide innovative materials, and (6) alternative approaches to the basic course should be closely examined.

U.S. Army. (1991). **Techniques of Military Briefing, SMC Advance Sheet. C1. (C505).** Fort Bliss, TX, U.S. Army Sergeants Major Academy.

Webb, L. (1989). A program of public speaking training: one consultant's approach. **Southern Communication Journal**, 55, 1, 72-86.

Describes a program of public speaking training, including development of a written proposal, conducting the workshop in four 3-hour sessions, and evaluating the program. Notes that training was well received and reduced trainees' self-reported communication apprehension. Presents ethical guidelines for scholar/consultants.

Wells, G. And Others (1985). **From Speech to Writing: Some Evidence on the Relationship between Oracy and Literacy from the Bristol Study "Language at Home and at School."** Paper presented at the Annual Meeting of the International Writing Convention (Norwich, England, March 31-April 4, 1985).

Prepared as part of a British project investigating children's language at home and at school, the study described in this paper centered on an examination of the spoken and written narrative texts produced by children to determine: (1) the relationship between spoken and written texts; (2) the differences, if any, in the production processes used in each; (3) the characteristics that most influenced raters in ranking the texts; and (4) whether the qualitative differences that led to the ranking of the texts as successful or unsuccessful were the result of individual differences or represented different stages in common sequences of development. The major portion of the paper consists of discussions of specific narrative samples that explain how and why each was rated successful or unsuccessful. The paper concludes with a brief discussion of the complex interrelationships between speech and writing and offers several implications of the study for teachers.

Listening

Bostrom, R. (1984). **Conceptual Approaches to Measuring Listening Behavior.**

Although the listening construct has been defined more widely in order to deal with the issue of lecture retention, these wider definitions suffer from serious conceptual and methodological problems, such as the assumption that receiving behavior is the same regardless of differing situations and messages. However, the literature would indicate that a comprehensive view of listening would include at least five factors: short-term listening, short term with rehearsal, interpretive listening, lecture listening, and selective listening. The usual factor-analytic tests have confirmed the statistical independence of these factors, but more interesting are the differing listening "profiles" that result from the testing of different groups of listeners. Three groups (university students, Army officers, and high school students) produced specific differences on a listening test for all five listening factors. Each of the scales also has a distinct "profile" with regard to the various ACT measures. This five-factor listening model has a number of immediate utilitarian benefits. First, it provides a comprehensive theoretical model based on fairly well-known memory functions. Second, it provides a comprehensive answer to the problems originally raised and ignored by researchers since the middle 1960s. And, third, it points to new directions in listening research.

Bostrom, R. & Waldhart, E. (1988). Memory models and the measurement of listening. **Communication Education**, 37, 1, 1-13.

Noting weaknesses in "standard" methods of measuring listening skills, develops a five-factor model utilizing three different kinds of memory and adding tasks requiring interpretation and concentration. Varying subscales, with the exception of the interpretive task, are found to be sufficiently reliable for research purposes.

Canale, M. (1984). Considerations in the testing of reading and listening proficiency. **Foreign Language Annals**, 17, 4, 349-357.

Considers the nature of receptive language proficiency, the nature of performance on language tests, and possible improvements in receptive language testing. Emphasizes how

testing of reading comprehension and testing of listening comprehension raise similar concerns which should be addressed in the design of receptive language tests.

Center for Performance Assessment (1983). **Speaking & Listening Assessment. Resources in Performance Assessment.** Portland, OR, Northwest Regional Educational Lab.

This annotated bibliography contains 10 items addressing speaking and listening assessment methodology. Specific topics include: (1) a national survey of state practices; (2) criteria for minimal high school requirements; (3) recommendations for instrument development; (4) the impact of listening on other language arts; (5) measuring oral communication; (6) guidelines for planning listening assessments; and (7) assessment at the college level. Items include the "Massachusetts Assessment of Basic Skills 1979-80, Summary Report: Speaking and Listening" and a guide, "Resources for Assessment in Communication," developed by the Speech Communication Association (SCA).

Child, J. (1984). Testing language proficiency in the receptive skills; Native vs. learner performances. **Foreign Language Annals**, 17, 4, 361-364.

Responds to Michael Canale's paper, "Considerations in the Testing of Reading and Listening Proficiency." Approaches Canale's three points of discussion from a textual point of view. Discusses the kinds of language materials likely to be encountered in texts at selected proficiency levels and how this material may be tested.

Dansereau, D. (1983). **Cooperative Learning: Impact on Acquisition of Knowledge and Skills. Technical Report 586.** Texas Christian Univ., Fort Worth. Army Research Inst. for the Behavioral and Social Sciences, Alexandria, VA.

In three experiments investigating both the features of cooperative learning in pairs that lead to improved mastery and retention of information and transfer of learning strategies to individual situations and the individual characteristics that contribute to cooperative learning outcomes, 126 college students studied excerpts from expository texts and were tested on retention of main ideas and details. Students worked either in pairs or individually with or without experimenter-provided learning strategies. In the cooperative learning situations, one partner summarized the text read while the other either simply

listened or provided elaborative and corrective feedback. Recaller/listener roles were either fixed or alternated. Effects of cooperative learning strategies on individual learning tasks were also assessed in a transfer task and eight measures of cognitive style and ability were administered. Findings showed: (1) cooperative learning was consistently more effective than individual learning, (2) recallers consistently learned more than listeners, (3) the summary recall and feedback strategy transferred positively from cooperative to individual learning situations, and (4) field independent and highly verbal partners facilitated the learning of field dependent and moderate verbal ability partners with no adverse consequences to themselves.

Delaney, H.D. (1990). **Validation of Dichotic Listening and Psychomotor Task Performance as Predictors of Primary Flight Training Criteria: Highlighting Relevant Statistical Issues. Interim Report. Jun-Aug 89.** Pensacola, FL, Naval Aerospace Medical Research Lab.

A statistical evaluation of the automated dichotic listening (DLT) and psychomotor tasks (PMT) indicated that both contributed to the prediction of primary flight training criteria. Prior to the main analyses, the extreme skewness-squadron differences in flight grades were removed by tranformations based on z-scores. Primary flight grades were highly correlated with the psychomotor scores (r's between -.26 and -.41) and moderately related with the dichotic listening scores (r's between -.22 and -.28). These r's were significant at an experiment-wise alpha of .05. Multiple regression analysis indicated an even stronger validity coefficient when a combination of the performance measures was used (R = .442). Furthermore, the 19.5 percent of flight grade variance accounted for by the performance based tests was largely independent of the 16.6 percent variance accounted for by a combination of current selection tests and demographic variables. For the pass/fail criterion, a statistically optimal combination of DLT/PMT variables, selection tests scores, and demographic variables was specified that could be used to identify individuals who are relatively more likely to attrite. Classification matrices illustrate how such predictions could reduce attrition.

Devine, T. And Others (1981). **Listening Skills Assessment: Manual and Script. 1980 New Hampshire Educational Assessment Program.** Concord, NH, New Hampshire State Dept. of Education

Designed to assess listening ability and to indicate implications for listening instruction, this instrument comes in a full and an abbreviated form. The 45 multiple-choice items on the full form measure 53 specific listening skills in five categories: (1) simple recall, (2) recognizing and following spoken directions, (3) recognizing a speaker's purpose and plan, (4) critical listening, and (5) higher level listening skills. The items are developed around real-life listening situations, such as conversations overheard on the street or in the supermarket, talk at meetings, a radio weather forecast, and spoken directions given by a service station manager. Validity, reliability, and normative data are included. (This document is one of those reviewed in The Research Instruments Project (TRIP) monograph "Measures for Research and Evaluation in the English Language Arts, Volume 2," published by the Committee on Research of the National Council of Teachers of English in cooperation with the ERIC Clearinghouse on Reading and Communication Skills. The TRIP review, included here as an introduction to the instrument, describes the instrument's category (language), title, author, date, age range (grade 6 for the abbreviated form, grade 11 for the full form), purpose, and physical characteristics.)

Edwards, P. (1991). **Listening: The Neglected Language Art.**

A number of educators have expressed concern over the poor quality of listening skills exhibited by U.S. public school students. Furthermore, there is concern regarding "automaticity," or "passive" listening which involves the perception of sounds without understanding. Not until a 1978 amendment to the Elementary and Secondary Education Act was listening (along with speaking) added to reading, writing, and arithmetic as a determinant of literacy and basic competency. Professional research and literature suggest that listening continues to be a neglected skill. To improve the teaching of listening in schools, it has been suggested that children be trained in three ways: (1) to concentrate on body language and gestures to enhance attention; (2) to practice techniques to overcome negative attitudes toward listening; and (3) to learn to identify important aspects of a speaker's material. Children should be involved in listening exercises and real-life experiences. Students can be presented with situations in which they must listen and understand to perform a task. Listening programs must be integrated as a vital part of language arts in all content areas in a similar way to reading. This will incorporate listening as a major communication skill in all facets of learning.

Faires, C. (1980). **The Development of Listening Tests.** Paper presented at the Annual Meeting of the Mid-South Educational Research Association (New Orleans, LA, November 12, 1980).

One of the major factors for the lack of quality listening research is a lack of knowledge about the process itself. The second major factor is the lack of a reliable and valid listening test. From a review of 107 articles on listening, 38 reports of listening research, and from studies of seven examiner-developed and three commercially-developed listening tests, a chart was developed to report correlations between each of the listening tests and the intelligence measures and reading assessments used in the validation process or in the research study. The listening tests reviewed include: the Wallner Test of Listening Comprehension, the Tipton and Weaver listening test, the Orr-Graham Listening Test, Sprache's Auditory Comprehension Test, the Brown diagnostic test of listening comprehension, Biggs' diagnostic test of listening effectiveness, Blewett's listening test, Heilman's listening test, the Brown-Carlsen Listening Comprehension Test, the Sequential Tests of Educational Progress (STEP) - Listening, and the Jones-Mohr Listening Test.

Gordon, P.C. (1990). **Perception and Temporal Properties of Speech. Annual Technical Report Jul 89-Jul 90.** Harvard Univ., Cambridge, MA. Dept. of Psychology for the Air Force Office of Scientific Research, Bolling AFB, DC.

Two series of experiments are reported on the role of prosody in human speech comprehension. One series looked at the role of prosodic information in the listeners' ability to recognize adjacent vowels and consonants cued by the common temporal feature of vowel duration. The stimuli consisted of syllables from a large sample of natural speech which listeners heard with or without prosodic context. Prosodic context was found to aid listeners in correctly attributing the phonological source of vowel duration. The second series of experiments examines the role of stress in syllable accessibility during the on-line comprehension of language and from short-term memory. During on-line comprehension, stress is found to interact with lexical processing, while the effect of stress on syllable accessibility from short-term memory is not dependent on lexical effects. Partial contents: Disambiguation of segmental dependencies by extended phonetic context; and coming to terms with stress -- Effects of stress location in sentence processing.

Halay, K. & Roberts, C. (1989). **The 'Watson-Barker Listening Test' for High School Students.** Paper presented at the Annual Meeting of the International Listening Association (10th, Atlanta, GA, March 1-4, 1989).

The high school version of the WBLT was developed in response to the need for a listening test appropriate for high school students. The test was comprised of conversations that would normally occur in either the high school setting or in the home and was developed in two different versions. The test consists of five sections each of which has ten questions based on two or more stimuli. The sample included 397 high school students from around the country (218 females and 179 males) aged 13 to 18, who were asked to complete one or both forms of the test. Males scored consistently lower than females on all parts of each form of the test, a difference in keeping with previously reported gender differences. The standard deviations on all parts, and the total scores, were lower than those reported for the adult video version of the WBLT. Although there was great variability among the testing sites, tremendous differences among the subjects, differences in motivation in subjects, and less than rigorous application of standard empirical control during much of the testing, the alternative forms of the test still were found to be significantly correlated, with each form capable of predicting a significant amount of the variation in the alternative form.

Jones, R. (1984). Testing the receptive skills: some basic considerations. **Foreign Language Annals**, 17, 4, 365-367.

Reacts to Michael Canale's paper, "Considerations in the Testing of Reading and Listening Proficiency," concentrating on three areas: (1) the nature of the receptive skills and the requirements of a valid instrument to measure them, (2) the design features that are consistent with his test design principles, and (3) adaptive testing procedures.

Karr, M. & Vogelsang, R. (1989). **A Comparison of the Audio and Pilot Video Versions of the Watson-Barker Listening Test: Forms A and B.** Paper presented at the Annual Meeting of the Western Speech Communication Association (Spokane, WA, February 17-21, 1989).

Using the alternate forms A and B of the WBLT, a study compared total scores and sub-scores for the audio versus the pilot video format, pre- versus post-instruction, and males versus females. Subjects consisted of 183 males and 292 females in a succession

of upper-division college classes on listening at a metropolitan university in the Pacific Northwest. The WBLT assesses five types of listening: (1) the ability to evaluate message content using short-term listening (STL); (2) the ability to understand meaning in conversations using STL; (3) the ability to understand and remember information in lectures using long-term listening (LTL); (4) the ability to evaluate emotional meanings in messages using STL; and (5) the ability to follow instructions and directions using LTL. Form B of the test, both audio and pilot version, was an alternate form test to Form A with the same format but different questions. Results indicated video format subjects had two higher sub-test scores and higher total score pre-instruction but not post-instruction. Subjects scored higher on the post-instruction tests except for one sub-test (following instructions and directions), and females scored higher than males on one pre-instruction sub-test, two post-instruction sub-tests, and on post-instruction total score. Alternate-form correlations were low but statistically significant. Findings indicate that the WBLT is an easy to administer and effective tool for measuring skill improvement separate from academic learning.

Liskin-Gasparro, J. (1984). Practical considerations in receptive skills testing. **Foreign Language Annals**, 17, 4, 369-373.

Discusses Michael Canale's paper, "Considerations in the Testing of Reading and Listening Proficiency," focusing on the third section, "Suggestions for improvements in receptive language testing." Considers such areas as: (1) level descriptions for academic use, (2) item and item types, and (3) validation.

Mead, N. & Rubin, D. (1985). **Assessing Listening and Speaking Skills. ERIC Digest.** Urbanna, IL, ERIC Clearinghouse on Reading and Communication Skills.

Intended for administrators and policymakers as well as teachers, this digest explores methods of listening and speaking skills assessment. The digest first provides a rationale for teaching and assessing listening and speaking skills. It then examines definitions of oral communication and listening, noting: (1) the trend toward defining oral communication by setting, by purpose, or in terms of basic competencies; and (2) an expanded definition of listening that includes critical and nonverbal listening skills. Next, the digest discusses how speaking skills are assessed, explaining observational and structured approaches and their respective rating systems, and touching on the effects of

rater reliability. The digest also discusses how listening skills are assessed, expanding on the three important elements in all listening tests: (1) the listening stimuli, (2) the questions used, and (3) the test environment. Finally, the digest explores how assessment instruments should be selected or designed, noting that selection depends upon the purpose for the assessment, and providing guidelines for various purposes.

Powers, D. (1984). **Considerations for Developing Measures of Speaking and Listening. College Board Report.** New York, College Entrance Examination Board.

The College Board has identified several basic intellectual competencies thought to be essential for effective work in all fields of college study, among them listening and speaking. An issue that arises in connection with these competencies is the availability of suitable measures to assess students' development in these areas. This report considers the availability and adequacy of existing measures of speaking and listening and discusses a number of issues that should be considered in any efforts to develop new measures of these skills. These issues include: availability and adequacy of existing measures; defining listening and speaking; developing content specifications; relationships among reading, writing, listening, and speaking; instructional effort directed towards speaking and listening; conforming to professionally accepted standards for educational and psychological tests; and administrative feasibility and costs.

Ridge, A. (1984). **Assessing Listening Skills.** Paper presented at the Annual Meeting of the International Listening Association (St. Paul, MN, July 12-13, 1984).

Teachers confronted with the task of teaching or assessing listening skills should realize that competence in listening is acquired by knowing and doing and is evidenced by appropriate feedback or response. Various state curriculum and assessment projects have identified and grouped competencies in listening according to function, such as sensing, interpreting, evaluating, and responding to the message. The lack of a conclusive definition of listening contributes to the difficulty in measuring listening skills. Nevertheless, standardized listening tests may serve a useful purpose in locating a strength or weakness in a student's listening skills. Context-generated paper and pencil tests can be used to ask questions about a discussion rather than about a reading assignment. Other ideas for assessment include the evaluation of student journals, class

notes, inference activities, vocabulary improvement, and logical thinking. Aside from written proof of active listening, a teacher can also make observations about student listening during class discussions about content material, perhaps keeping a check list concerning specific skills. Listening behavior can be observed, too, in the school environment outside of class. The measure for assessment may be varied, but there are many context-oriented opportunities for the classroom teacher to use to assess listening among students.

Roberts, C. (1985). **A User's Response to the Use of Listening Assessment Instruments.** Paper presented at the Annual Meeting of the Speech Communication Association (71st, Denver, CO, November 7-10, 1985).

Noting that the attention of the speech communication discipline to listening skills does not mirror the apparent importance of such skills, this paper examines five listening assessment tests--focusing on the strengths, weaknesses, procedural problems, and conceptualizations of each--that potential users should be aware of before selecting any one of the instruments. The major portion of the paper discusses individually the five instruments: (1) the Learning Skills Inventory, (2) the Communication Competency Assessment Instrument, (3) the Brown-Carlsen Listening Comprehension Test, (4) the WBLT, and (5) the Kentucky Comprehensive Listening Test. The remainder of the paper presents conclusions drawn from the previous discussions, specifically that one instrument cannot win acceptance without its underlying conceptual definition being agreed to by the majority of users, and that perhaps no one instrument will be found to be acceptable for all situations. This section also acknowledges many of the shortcomings of existing listening research and the need for longitudinal investigations that would document effective methods for teaching listening.

Roberts, C. (1986). **The Question of Validity and Application: How Do We Know How Well We Are Listening.** Paper presented at the Annual Meeting of the Eastern Communication Association (77th, Atlantic City, NJ, April 30-May 3, 1986).

To test the validity of the WBLT, a study was conducted based on the hypothesis that there is a curvilinear relationship between receiver apprehension and listening ability. Subjects, 120 undergraduate speech students, completed the Receiver Apprehension Test (RAT) and the WBLT. Analysis of the data revealed a significant correlation between RAT scores and both long-term memory and total listening ability, though not between

RAT scores and short-term memory. These significant relationships were curvilinear in nature, supporting the claims of validity for the Watson-Barker instrument. However, conclusions drawn from the study emphasize that more data must be accumulated before the WBLT can be considered "externally valid."

Rohs, F. & Howell, J. (1989). **Evaluating Listening Skills of Extension Staff.** Paper prepared for the Annual Meeting of the American Evaluation Association (San Francisco, CA, October 19-21, 1989).

The listening skills component of the Interpersonal Skills Training Program for staff of the University of Georgia Cooperative Extension Service was evaluated. Such services can help individuals and client families explore alternatives and develop resources for coping with crises. An instrument developed by J. E. Jones and L. Mohr (1986) was used to measure the listening skills of 150 county and state extension staff before and after the 3-day training program. The listening test consists of responses to taped statements that would reveal how accurately respondents had understood the statement's intended meaning. Pre-test scores indicated that the extension staff did not generally have adequate listening skills. The 30-item post-test indicated that extension personnel improved significantly in listening ability with the greatest increases in the scores of males and those working in agriculture rather than home economics. No significant relationship was found between educational level and post-test scores. In addition, listening skills improved more for some geographic areas than for other areas, perhaps a reflection of higher personal contact in some areas.

Rubin, R. & Roberts, C. (1987). A comparative examination and analysis of three listening tests. **Communication Education,** 36, 2, 142-153.

Examines the conceptual and methodological similarities and differences of three listening measures: the WBLT, Kentucky Comprehensive Listening Test, and the Communication Competency Assessment Instrument (CCAI). Provides information on the concepts being assessed in each and illuminates major methodological issues for listening test users.

Rubin, R. & Shepherd, P. (1985). **Listening Assessment via the Communication Competency Assessment Instrument.** Paper presented at the Annual Meeting of the Speech Communication Association (71st, Denver, CO, November 7-10, 1985).

The CCAI was developed as a college-level communication competence measure. However, because the listening portion of the CCAI requires individual testing and is not practical for large-scale testing situations, an additional multiple-choice measure was developed. In a study conducted at Kent State University, 339 students in introductory speech communication classes completed three listening measures: the Kentucky Comprehensive Listening Test, the WBLT, and the open-ended (OE) and multiple-choice forms of the CCAI. Analysis of the students' scores indicated that there are many similarities between the Kentucky and the Watson-Barker tests, but that the strongest relationship among the listening tests exists between the WBLT and the CCAI-OE. Comparison of these three tests has shown that listening to an audiotape may differ from receiving the stimulus through videotape or in actual performance and that the questions must be worded accurately. Several additional concerns have been discovered and should be addressed in listening test construction and development.

Shohamy, E. & Inbar, O. (1988). **Construct Validation of Listening Comprehension Tests: The Effect of Text and Question Type.** Paper presented at the Annual Colloquium on Language Testing Research (10th, Urbana, IL, March 5-7, 1988).

A study examined the construct validity of second language listening comprehension tests that use different types of texts by determining to what degree the text's listenability facilitates or hinders comprehension. Three hypotheses were tested: (1) texts containing more listenable features, thus closer to the oral end of the oral/literate continuum, will yield higher scores than texts closer to the literate end; (2) second language learners will perform better on questions related to the local rather than global text elements; and (3) the interaction between oral text types and local question types will yield higher scores than the interaction between literate text types and global questions. Three text type versions of the same text (news broadcast, mini-lecture, and consultative dialogue) were used in a test administered to 150 high school seniors who were students of ESL. Open-ended questions concerning the texts were categorized as local, global, or trivial. Results indicated that the most literate text type, the news broadcast, was more

difficult to comprehend than the other two which contained more orally oriented features. The findings supported all three hypotheses.

Steil, L., et. al. (1983). **Effective Listening: Key to Your Success**. New York: Random House.

U.S. Army. (1990). **Effective Listening: SMC Advance Sheet. (C504)**. Fort Bliss, TX: U.S. Army Sergeants Major Academy.

Wyatt, D. (1984). Computer-assisted teaching and testing of reading and listening. **Foreign Language Annals**, 17, 4, 393-407.

Describes and assesses what can be achieved in the learning and testing of the receptive language skills with computer hardware now available. Provides guidelines and suggestions for the development of language learning and testing software. Defines three types of computer programs: instructional, collaborative, and facilitative.

APPENDIX E

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Instrument Publishers

Addison-Wesley Publishing Company, Inc.
2725 Sand Hill Road
Menlo Park, CA 94025

American College Testing Program
P.O. Box 168
Iowa City, IO 52240

American Guidance Service
Publishers' Building
Circle Pines, MN 55014

Bobbs-Merrill Educational Publishing
4300 West 62nd Street
Indianapolis, IN 46206

Bureau of Educational Research and Service
University of Iowa
Iowa City, IO 52242

Center for Creative Leadership
5000 Laurinda Dr.
P.O. Box 26300
Greensboro, NC 27438

Consulting Psychologists Press, Inc.
577 College Avenue
Palo Alto, CA 94306

CTB/McGraw-Hill
Del Monte Research Park
Monterey, CA 93940

Educational and Industrial Testing Service
P.O. Box 7234
San Diego, CA 9210

Educational Testing Service
Princeton, NJ 08541

Harcourt Brace Jovanovich, Inc.
757 Third Avenue
New York, NY 10017

Hodder & Stroughton Educational
P.O. Box 702
Dunton Green, Sevenoaks
Kent TN13 2YD, England

Houghton Mifflin Company
1 Beacon Street
Boston, MA 02107

Human Sciences Research Council
Private Bag 41
Pretoria, Republic of South Africa

Industrial Relations Center
University of Chicago
1225 East 60th Street
Chicago, IL 60637

Institute for Personality and Ability Testing
1602 Coronado Drive
Champaign, IL 61820

Jastak Associates, Inc.
1526 Gilpin Avenue
Wilmington, DE 19806

National Institute for Personnel Research
P.O. Box 10319
Johannesburg, Republic of South Africa

National Occupational Competency Testing Institute
45 Colvin Avenue
Albany, NY 12206

Nfer Publishing Company
2 Jennings Buildings
Thames ave., Windsor Berks S14 1QS England

Pro-ed
8700 Shoal Creek Blvd.
Austin, TX 78758

The Psychological Corporation
757 Third Avenue
New York, NY 10017

Psychological Test Specialists
Box 9229
Missoula, MT 59807

Psychometric Affiliates
Box 3167
Munster, IN 46321

Riverside Publishing Company
1919 South Highland Avenue
Lombard, IL 60148

Scholastic Testing Service, Inc.
480 Meyer Road
Bensenville, IL 60106

Science Research Associates, Inc.
155 North Wacker Drive
Chicago, IL 60606

Scott, Foresman and Company
1900 East Lake Avenue
Glenview, IL 60025

Sheridan Psychological Services
P.O. Box 6101
Orange, CA 92667

Spectra Communications Assoc.
P.O. Box 5031, Contract Station 20
New Orleans, LA 70118

C.H. Stoelting Company
1350 South Kostner Avenue
Chicago, IL 60623

Western Psychological Services
12031 Wilshire Boulevard
Los Angeles, CA 90025

INSTRUMENTS IDENTIFIED - STEP 1

1. WRITING

Test of Adult Basic Education.
CTB/McGraw-Hill
2500 Garden Road
Monterey, CA 93940

Employee Aptitude Survey.
Psychological Services, Inc.
100 W. Broadway, Suite 1100
Glendale, CA 91210

BASE.
U.S. Army.

General Education Development.
American Council on Education.
One Dupont Circle
Washington, DC 20036

Prentice-Hall Diagnostic Test.
Prentice-Hall.

Word Fluency.
London House, Inc.
1550 Northwest Highway
Park Ridge, IL 60068

Verbal Reasoning.
London House, Inc.
1550 Northwest Highway
Park Ridge, IL 60068

Understanding Communication.
London House, Inc.
1550 Northwest Highway
Park Ridge, IL 60068

WRAT - R.
Jastak. Associates, Inc.
15 Ashley Place, Suite 1A
Wilmington, DE 19804

Looking Glass.
Center for Creative Leadership
5000 Laurinda Dr.
P.O. Box 26300
Greensboro, NC 27438

2. SPEAKING

3. LISTENING

Watson-Barker Listening Test Form A.
Spectra Publishers
Box 13591
New Orleans, LA 70185

APPENDIX F

APPENDIX F

INSTRUMENTS IDENTIFIED AND EVALUATED

This appendix provides a description of all instruments evaluated during this investigation. Included are rationale for consideration and reasons for non-selection for those instruments that did not merit recommendation for further evaluation. Disposition for each instrument is also included.

Note: Only those instruments that received the highest overall evaluations were recommended to the Army for further consideration.

Note also: Instruments in this appendix are listed in the same order in which they appear in Table 3 of the text.

WRITING

Test of Written Language, Second edition (TOWL-2) Forms A&B, 1988.
Pro-Ed, Inc.
8700 Shoal Creek Blvd.
Austin, TX 78758

The **TOWL-2** measures aspects of written language that are related to expression. It is divided into two broad categories (contrived and spontaneous) with 10 subtests (vocabulary, spelling, style, logical sentences, sentence combining, thematic maturity, contextual vocabulary, syntactic maturity, contextual spelling, and contextual style).

Of instruments designed to measure writing quality, the **TOWL-2** received the highest rating from both evaluators in the investigation. The **TOWL-2** addresses the first five writing standards. Standards 6 and 7 are not addressed. This is a powerful diagnostic tool. A point both in its favor and against it is that it requires a writing sample. This provides a direct measure of writing quality. However, it also requires the instructor to spend a considerable amount of time evaluating. Based on the above, although not complete, the **TOWL-2** appears to be a good measure of the Army's writing standard.

This instrument was recommended to the Army for further evaluation. Although no cost was involved in obtaining samples, it was converted to GFM.

General Education Development.
American Council on Education
One Dupont Circle
Washington, DC 20036

Scores on this instrument are used as criteria for high school equivalency based on representative expected outcomes of a 4-year high school education. It was included in this study because the **GED** plays a prominent role in Army recruiting, testing, and promotion. Reliability coefficients for reading mirror high school baseline requirements. The writing skills portion also has a high reliability coefficient.

This instrument received the second highest rating for tests that measure writing quality. The newest GED format, dating from 1988, consists of two parts. Part I includes questions on sentence structure, usage, and mechanics (spelling, punctuation, and capitalization). Part II requires a 200-word essay in which students state an opinion and support it or give an explanation. The **GED** addresses all NCOES task list standards except 6 and 7. It measures all tasks except task 4. As a measure of the Army's writing standard, only the **TOWL-2** received a higher rating.

Information on the **GED** was provided as part of the GFM and was returned on completion of the investigation.

Prentice-Hall Diagnostic Test.
Prentice-Hall, Inc.
Englewood Cliffs, NJ 07632

The **Prentice-Hall Diagnostic Test** is among the diagnostic tests currently used by the Army. It is divided into two subtests (A & C) with five and three parts each, respectively. Test A measures mechanics (spelling, punctuation, capitalization, basic grammar and usage, and sentence recognition) while Test C measures diction and sentence style, parallelism, paragraphs, and aspects of whole compositions. It focuses on elements of writing and their correctness or incorrectness.

This instrument addresses the seven standards; however, since students do not actually write anything, it does not measure writing tasks 1 - 4. While this instrument covers the mechanics of standard English fairly well, some directions require students to know grammatical terminology with which they may not be familiar (e.g., fragments, subjects, predicates). This instrument received the third highest rating. Its only major drawback to providing a measure based on the Army writing standard is the lack of a direct measure of writing quality.

This instrument was provided as a part of the GFM and was returned upon completion of the investigation.

Basic Army Skills Education Examination (BASE).
U.S. Army
USAREUR Pamphlet 621-12.

The **BASE** is used by the Army in Europe. The rationale for its use is that writing skills are generally required of enlisted soldiers in Europe. There are 77 questions designed to assess mechanics, grammar, and organization. Although it measures only one of the tasks in the NCOES task list (task 5 - proofreading and correcting), it measures six of the writing standards (1, 2, 3, 4, 5, and 7).

Because of its limitations to measure writing quality to the Army's standard, this instrument was not recommended for further evaluation and was returned upon completion of the investigation as a part of the GFM.

Test of Adult Basic Education (TABE) (1987).
CTB/McGraw-Hill
2500 Garden Road
Monterey, CA 93940

The **TABE** is currently used by the Army at both officer and enlisted levels as one diagnostic test for communicative skills. Although listed with other Government-Furnished Material (GFM) for this investigation, the Army felt that provision of this instrument could potentially lead to compromise. Samples of Form 5 of all levels of the **TABE** (E,M,D, and A) were purchased from the publisher and evaluated.

The **TABE** measures comprehension, computation, mathematical concepts and application, language mechanics, expression, and spelling. Results of evaluation against other instruments indicate that it ranked fifth among instruments that measure writing. The only NCOES writing task that it measures to any extent is task 5 ("proofread and correct a written work ..."). The language mechanics and expression subtests do appear to marginally measure NCOES writing standards 1, 3, 5, and 7.

The **TABE** has limited utility in measuring writing ability to the Army's standards. Although the **TABE** was not recommended for further evaluation, it was converted to GFM (26 Dec 91) because it had been purchased under contract.

Wide Range Achievement Test - Revised (WRAT-R) (1984).
Jastak Associates, Inc.
15 Ashley Place, Suite 1A
Wilmington, DE 19804

The **WRAT-R** is a respected and widely-used test of general achievement. It has a wide range of applicability (from preschool to adult) and can be administered individually or in groups. The only NCOES task list standard that it measures is spelling. It also measures listening standard 3 (following instructions). Clearly, these must be viewed as limitations toward further consideration for Army use.

The **WRAT-R** has almost no utility in measuring writing quality to the Army's standards. Because of this, the **WRAT-R** was not recommended for further evaluation. Since the product was obtained on 30-day approval, it was returned to the vendor.

Employee Aptitude Survey (EAS) (1984).
Psychological Services, Inc.
100 W. Broadway, Suite 1100
Glendale, CA 91210

The **EAS** is attractive if for no other reason than it measures a variety of employee aptitudes, is easy to administer (5 minutes), and is quick to grade (30 seconds). Three of the ten subtests of the **EAS** were examined for this study: Verbal comprehension (subtest 1), verbal reasoning (subtest 7), and word fluency (subtest 8). Please note that although these titles are identical to tests published by London House (also evaluated during this investigation), they are not the same instruments. The 3 subtests were found to measure the following NCOES task list standards: Clarity (minimally), and grammatical English (minimally).

The **EAS** was not recommended for further evaluation because of the clear lack of depth of the instrument to measure the NCOES task list writing skills and a lack of measuring writing skills to the Army's standards.

A sample of the **EAS** was purchased for evaluation and was converted to GFM on completion of the investigation.

Expression (1960).
London House, Inc.
1550 Northwest Highway
Park Ridge, IL 60068

This is a subtest of the **Flanagan Aptitude Classification Tests (FACT)**. It is designed to test knowledge of grammar and sentence structure as well as ability to express in writing and speech. It was found to have limited suitability to the Army's standard, measuring only NCOES writing task 5 (proofread and correct). It does marginally measure writing standards 1, 3, and 7.

This instrument was not recommended for further evaluation because of its clear limitations when compared to other instruments evaluated during this investigation. Although it was not purchased, the obtained sample was provided to the Army.

Skill-Scope (1988).
Center for Creative Leadership
5000 Laurinda Dr.
P.O. Box 26300
Greensboro, NC 27438

Besides being a clearinghouse for leadership information, the Center for Creative Leadership also publishes a line of leader and management training tools and tests. Some of these products are purportedly already in use as components of Army management training programs, primarily for officers.

Because the Army views communicative skills as components of common leader training, this investigation did not preclude an examination of instruments designed to measure leader skills. These included both the **Looking Glass** and **Skill-Scope** instruments. **Looking Glass** was removed from consideration very quickly due to expense (over $1,000 per person).

Skill-Scope measures managerial strengths and weaknesses, ability to: Process information, communicate, influence, and make decisions. It was evaluated to determine its utility to measure communicative skills components of leader skills. As can be seen from Table 3, it received a very low total score. It does not measure any of the NCOES writing tasks. Of the writing standards, it measures clarity and organization.

Because this instrument fails to measure communicative skills to the Army's standards, this instrument was not recommended for further evaluation. Although it was not purchased, the obtained sample was provided to the Army.

Word Fluency (1988).
London House, Inc.
1550 Northwest Highway
Park Ridge, IL 60068

The basis for consideration of this test was its stated grounding in Thurstone's (1941) primary mental abilities. Thurstone suggested that a good measure of word fluency is a person's ability to solve anagrams, perform rhyming, and write words to a given category. It is an easy test to administer and grade (10 minutes). This is not enough, however, to compensate for its glaring problems. Raters agreed in finding it to be completely unsuitable for use to measure the Army's standard.

This instrument was not recommended for further evaluation. Although it was not purchased, the obtained sample was provided to the Army.

Verbal Reasoning (1958).
London House, Inc.
1550 Northwest Highway
Park Ridge, IL 60068

This test is designed to measure a person's logical reasoning capability by solving verbal problems. It is a timed test requiring 15 minutes to respond to 12 multiple choice questions. Although publisher information looked attractive for this instrument, it failed to measure up to its title. Raters agreed in finding this instrument to be unsuitable for use to measure the Army's writing standard.

This instrument was not recommended for further evaluation. Although it was not purchased, the obtained sample was provided to the Army.

Understanding Communication (1984).
London House, Inc.
1550 Northwest Highway
Park Ridge, IL 60068

This instrument measures comprehension of written material. It was included for consideration because of its appearance to measure some of the writing standards. Raters found it to be very limited in its diagnostic powers. It marginally measures NCOES task list standard 3 (grammatical English). Because there

were instruments better suited for the purpose, this instrument was not recommended for further evaluation.

This instrument was not recommended for further evaluation. Although it was not purchased, the obtained sample was provided to the Army.

SPEAKING

The failure to uncover sources of instruments to measure speaking skills was a major disappointment from this investigation. Clearly, given the nature of the importance of corporate communications in today's market, it seemed reasonable to expect that instrument developers would have seized the opportunity by now. However, in review after review, it was apparent that although management training programs do pay considerable attention to speaking skills, they do not evaluate them.

Dantes Principles of Public Speaking (DPPS) (1989).
Educational Testing Service (ETS)
Princeton, NJ 08541

ETS publishes this test of public speaking skills (the **DPPS**), which is divided into two parts. The first part consists of 84 multiple choice questions. It is untimed but is estimated to require 90 minutes. In the second part, the testee records a 3- to 5-minute persuasive speech on an audio cassette tape. The testee is provided with a topic (from a limited selection of choices) and is then given 10 minutes to prepare. The completed audio cassette is then sent to ETS for evaluation.

Evaluators found the **DPPS** to be an effective instrument to measure public speaking ability. Part one measures NCOES task list speaking standards 1, 2, and 7, along with speaking task 4. Part two measures standards 1, 3, 4, 5, and 7 (since the speaker is not seen by the reviewer, it does not measure standard 2). Part two does not measure speaking tasks 1, 3, or 4. In an interview with ETS, it was determined that this instrument is modifiable to the Army's standard.

The **DPPS** was obtained from ETS on a 30-day loan and was returned to the vendor on completion of the investigation.

LISTENING

Watson-Barker Listening Test Form A (WBLT) (1987).
Spectra Publishers
Box 13591
New Orleans, LA 70185

The **WBLT** is currently under investigation by the Army for use at the CGSC. It was developed based on the research of Watson, Steil, and Barker. This research, in turn, led to the Army's guidelines for listening proficiencies.

The **WBLT** consists of five parts. Each part presents a series of videotaped situations within a category (interpreting messages, understanding meaning, listening to lectures, interpreting emotional meaning, and following instructions). It was found to measure NCOES listening standards 1 and 3 to an extent. It also measures NCOES listening tasks 1 and 5. Overall ratings for the **WBLT** were marginally good enough for recommendation to the Army for further evaluation.

A sample of the **WBLT** was purchased for evaluation and was converted to GFM on completion of the investigation.

APPENDIX G

Briefing

Feasibility Standards for Communicative Skills

FEASIBILITY STANDARDS FOR COMMUNICATIVE SKILLS

AGENDA

INTRODUCTION

ACCOMPLISHMENTS TO DATE

RESULTS

OBSERVATIONS

RECOMMENDATIONS

INTRODUCTION

PURPOSE

DETERMINE THE FEASIBILITY OF USING EXISTING INSTRUMENTS TO MEASURE NCOs COMMUNICATIVE SKILLS PROFICIENCIES TO THE ARMY'S STANDARD

BACKGROUND

SOW RECEIVED	25 JUL 91
CLARIFICATION MEETING	2 AUG 91
DOPP PRESENTED	19 AUG 91
TASK LIST RECEIVED	3 OCT 91
FOPP PRESENTED	10 OCT 91
IPR - 1	22 OCT 91
VISIT TO USASMA	5 NOV 91

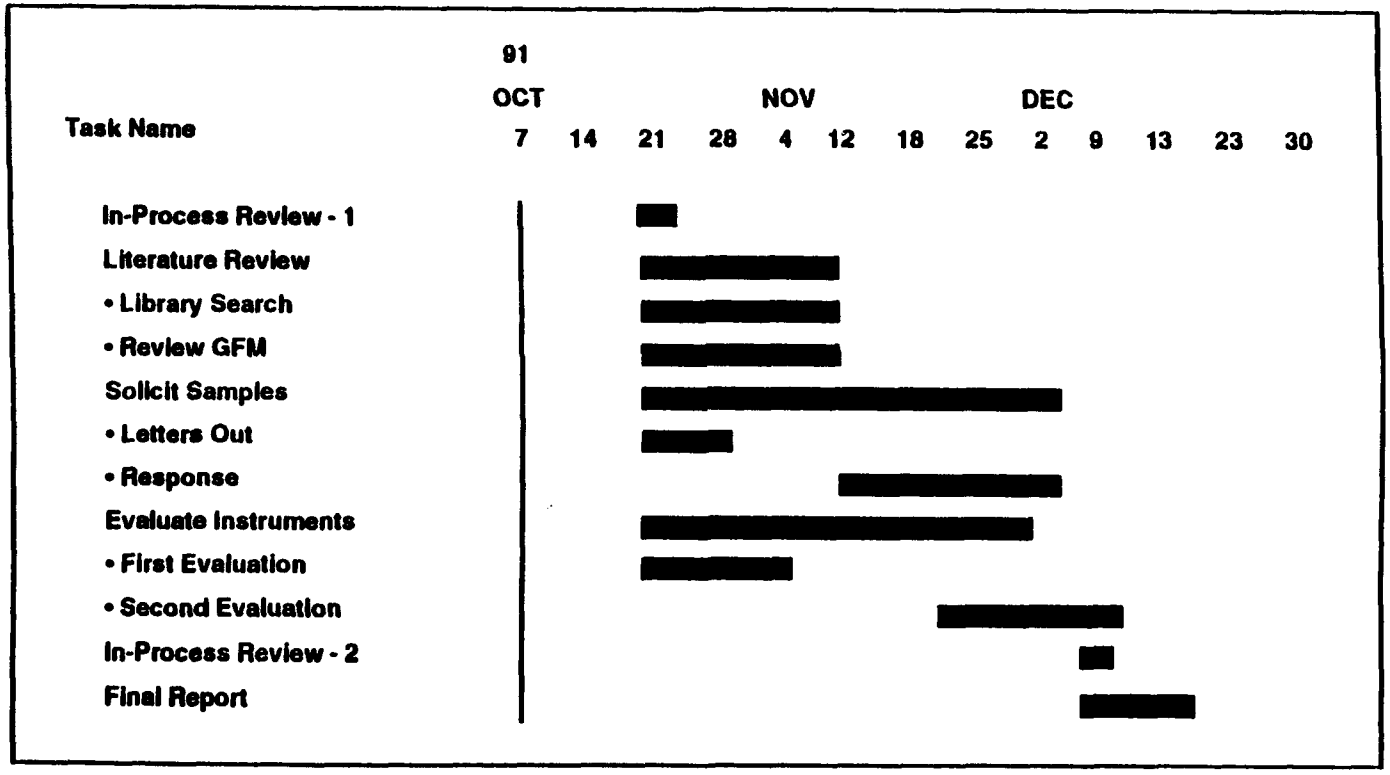
STATUS

COMPLETED LITERATURE REVIEW

COMPLETED INSTRUMENT REVIEW

COMPLETED PRELIMINARY ANALYSIS

SCHEDULE



ACCOMPLISHMENTS TO DATE

FINDINGS FROM LITERATURE REVIEW

- GENERAL - METHOD ISSUES
- WRITING - DIRECT VS. INDIRECT
- LISTENING - DEFINITION DEPENDENT
- SPEAKING - CONTEXT DEPENDENT

G-9

FINDINGS FROM LITERATURE REVIEW (Cont.)

- SOURCES INCLUDED:
  - AUTOMATED (ERIC, NTIS, MLA, PSYCLIT)
  - PROFESSIONAL JOURNALS
  - MILITARY RESEARCH (ARI, DTIC, MATRIS)
  - INTERVIEWS (POCs)

INSTRUMENTS

SOLICITED - 33 PUBLISHERS

RECEIVED - 14 RESPONSES

REVIEWED - 14 INSTRUMENTS

INSTRUMENT. PUBLISHER	RATER 1	RATER 2	AVG.
WRITING			
TABE . CTB.	4	5	4.5
EAS. Psychological Services.	5	2	3.5
BASE. U.S. Army.	4	5	4.5
GED. American Council on Education.	6	7	6.5
Prentice-Hall Diagnostic Test. Prentice-Hall.	6	5	5.5
Word Fluency. London House.	0	0	0
Verbal Reasoning. London House.	0	0	0
Expression. London House.	2	2	2
Understanding Communication. London House.	0	0	0
WRAT-R. Jastak.	6	2	4
TOWL - 2. Pro-Ed.	7	7	7
Skill-Scope. C.C.L.	1	3	2
SPEAKING			
D.P.P.S. - E.T.S.	5	7	6
LISTENING			
Watson-Barker Listening Test Form A. Spectra Publishers.	5	5	5

RESULTS

ANNOTATED BIBLIOGRAPHY

20 SEPARATE SEARCHES

217 REFERENCES

EXTERNAL COORDINATION

- OSD (DMDC)
- OTHER SERVICES
  - U.S. AIR FORCE
  - U.S. MARINE CORPS
  - U.S. NAVY
- ENGLISH-SPEAKING ALLIES
  - AUSTRALIA
  - CANADA
  - GREAT BRITAIN

FINDINGS TO DATE

- NO SINGLE INSTRUMENT OR BATTERY MEASURES ALL THREE SKILLS

  - CAN MEASURE PARTS OF WRITING
  - CAN MEASURE PARTS OF LISTENING
  - CAN MEASURE PARTS OF SPEAKING

- AUTOMATED TOOLS SHOW PROMISE

- LEADER ASSESSMENT NEEDED TO ASSESS/BUILD JOB-RELATED SKILLS

OBSERVATIONS

APPLICATION OF STANDARDS

- MEASURE FIRST USING TABE OR GT
- IF DEFICIENCIES SHOW - MEASURE FURTHER
- DEFINE ARMY STANDARD FOR POLICY DECISIONS (ACCESSION, PROMOTION, SCHOOL SELECTION, RETENTION)

ISSUES

- CONTEXT OF NCO LEADER DEVELOPMENT
  - RECOMMENDATION 18 - CAREER MAPS
  - LACK OF CURRENT STANDARD IN POLICY
- NO CLEAR GUIDELINES FOR BSEP/ESL
- SCORES MUST STICK

RECOMMENDATIONS

RECOMMENDATIONS

CONTINUE RESEARCH

EXAMINE COMMUNICATIVE SKILLS PROGRAM

BUILD A PREDICTIVE MODEL OF SKILLS

REVIEW MANPRINT IMPLICATIONS OF COMMUNICATIVE SKILLS (E.G., SAFETY)