

MINUTES OF  
Budget and  
Control Board  
Meeting

July 2, 1980

MINUTES OF BUDGET AND CONTROL BOARD MEETING

JULY 2, 1980

POLL

On this date, Deputy Executive Director William A. McInnis completed a poll begun on July 1 of the following Budget and Control Board members on the item of business described below:

Governor Richard W. Riley (through Executive Assistant Clarke)  
Mr. Grady L. Patterson, Jr.  
Mr. Earle E. Morris, Jr.

Senator Rembert C. Dennis and Representative Tom G. Mangum were not contacted.

EDUCATOR IMPROVEMENT TASK FORCE - CONSULTANT CONTRACT AWARD -

As a follow-up to the receipt of a report at the June 10 meeting on the possibility of a request by the Educator Improvement Task Force for a poll of the Board, Deputy Executive Director William A. McInnis advised the members polled that the Task Force has requested Board approval of the award of a contract in the amount of \$74,813.00 to Planning, Development & Evaluation Associates, Incorporated for the services involved in the development of basic skills measures. The members were advised that three other proposals were received by the Task Force including ones from the University of South Carolina (\$77,199.00); Benedict College (\$278,586.00); and National Evaluation Systems (\$74,525.00). The members polled also were advised that the Attorney General's office had reviewed the request for proposals and the procedures followed by the Task Force in reaching its conclusion and had approved them.

The members polled without objection agreed to approve the award of the referenced contract to Planning, Development & Evaluation Associates, Incorporated for the development of basic skills measures for the Educator Improvement Task Force.

Information relating to this matter has been retained in these files and is identified as Exhibit 1.



# The South Carolina Educator Improvement Task Force

1602 Bull Street at Taylor, Columbia, South Carolina 29201, 803-758-3977

## EXHIBIT

JUL 2 1980 NO. 1

STATE BUDGET & CONTROL BOARD

### Chairman

William E. Chaiken, Ph.D.  
Assistant Superintendent for  
Instruction  
Anderson District 5

### Vice Chairman

Carl A. Carpenter, Ph.D.  
Assistant to Vice President  
for Academic Affairs  
South Carolina State College  
Orangeburg

### Secretary

Carol J. Hay, Teacher  
Laurens District 56, Clinton

### Members

Martha Jean Bolus, Teacher  
Folly Beach

The Honorable Philip T. Bradley  
District 21, Greenville

The Honorable Harry A. Chapman, Jr.  
District 2, Greenville

William T. Cooke, Jr., D.D.  
Pastor, Trinity United Methodist  
Fountain Inn

H.E. Corley, Ed.D., Superintendent  
Richland District 2, Columbia

The Honorable Robert C. Lake, Jr.  
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Joseph E. Myers, Jr., Principal  
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The Honorable Elizabeth J. Patterson  
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Jean U. Phillips, Teacher  
Oconee County Schools  
Walhalla

The Honorable Lewis Phillips  
District 18, Greenville

Anna O. Reuben, Ed.D.  
Dean of Academic Affairs  
Morris College, Sumter

James H. Rex, Ph.D., Dean  
School of Education  
Coastal Carolina College  
Conway

Charles A. Spann, Sr.  
Board of Trustees  
Spartanburg, District 7

Louise T. Scott, Ph.D. Director  
Instructional Improvement  
Florence District 1

The Honorable McKinley Washington, Jr.  
District 116, Charleston-Colleton

### Director

Josef F. Stulac II, Ph.D.

June 25, 1980

### Memorandum

To: Mr. Frank Sloan, Office of the Attorney General

From: Dr. Josef F. Stulac II

Subject: Review of Procedures for Awarding Basic Skills Examination Contract

The following steps have been taken by the Educator Improvement Task Force to reach a decision in awarding a contract for the development of a Basic Skills Examination for teacher preparation in South Carolina.

- May 1 — Request for Proposal (SC-EITF 001) mailed to all South Carolina colleges and universities, private consultants known in the area, and national test development companies. (RFP attached)
- May 7 — Request for Proposal reviewed by Deputy Attorney General, Mr. Frank Sloan, for additional information and approved. (Proposal Screening Procedures attached)
- May 10 — Bidders' conference held at Task Force offices from 10:00 a.m. until noon to answer questions concerning RFP. Eleven persons attended; all questions and answers were recorded and copies were mailed to all respondents. (Bidders' Conference notes attached)
- May 23 — Blind review committee nominated by education organizations and prepared for evaluation. The reviewers included two representatives from the South Carolina Education Association, two representatives from the Palmetto Teachers Association, two representatives from the South Carolina Administrators Association, one representative from the PTA, one representative from the South Carolina Association of Colleges of Teacher Education, one representative from the State Department of Education, and three technical consultants employed by the Task Force. (Evaluation form attached)
- June 1 — Closing date for proposals to be postmarked.

# EXHIBIT

JUL 2 1980 NO. 1

STATE BUDGET & CONTROL BOARD

Mr. Frank Sloan  
Page 2  
June 25, 1980

- June 4 — Four proposals were received. Business (budget) sections were removed and technical proposals were edited to remove identification of proposer. Copies of each technical proposal were delivered to the blind review committee.
- June 12 — All reviewers' ratings returned and compiled by project staff. (Rating summary attached).
- June 16 — All Task Force members received complete copies of four proposals including budget statements along with reviewers' comments and staff recommendations. (Recommendation paper attached)
- June 23 — Task Force met in Executive Session to discuss contract award. Unanimous vote to award contract to proposal that was rated highest by the review committee. (Proposal attached)
- June 25 — Procedures submitted to the Attorney General's Office for Review and approval.

As soon as possible, but after approval by the Attorney General, the Board of Budget and Control will award the official contract to Planning, Development, and Evaluation Associates, Inc. It is hoped that this contract award can be made before July 1, 1980, to coincide with the current fiscal year.

/st

Attachments: Request for Proposal (SC-EITF 001)  
Proposal Screening Procedures  
Bidders' Conference Notes  
Reviewers' Evaluation Form  
Reviewers' Rating Summary  
Recommendation Paper  
Proposal

[- 004

# EXHIBIT

JUL 2 1980 NO. 1

STATE BUDGET & CONTROL BOARD  
THE SOUTH CAROLINA EDUCATOR IMPROVEMENT TASK FORCE  
1602 Bull Street at Taylor  
Columbia, South Carolina 29201

On Saturday, May 10, 1980, at 10:00 a.m., a bidders' conference was held in Columbia, South Carolina, to discuss RFP No. SC-EITF-001. In attendance were the following persons: Bob Rentz, Atlanta; Stan Bernknopf, Atlanta; Tom D. Freijo, Tampa; Tim Schoen, Atlanta; Joan Gallini, USC, Columbia; Patti Page, USC, Columbia; John Dolly, USC, Columbia; Linda Craig, Atlanta; Ron Quinn, Orangeburg; Mary Callahan, Amherst, Mass.; Melvin Haynes, Orangeburg. Task Force staff responding were: Dr. Josef Stulac, Director; Dr. Vernon Gettone, Program Supervisor; Ms. Bricca Prestridge, Program Supervisor; Mary Lee Maiden, Recorder.

The questions and answers from this discussion are given below. Asterisked responses were researched for this writing with the State Budget and Control Board and are included here for clarification. This is not a verbatim transcript.

All proposers who returned cards of intention to submit proposals are being mailed this document. A screening procedure schedule was given to each attendee and is included with this mailing.

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Questions were by prospective bidders; responses by: Dr. Stulac

1. Who will be the administrator of the whole project when developmental work is finished?

State Department of Education

2. Do you mean all that comes out of the project, from the Basic Skills test on?

Yes. Reference: Act 187, Section 2, a-j

3. Which office in the State Department of Education?

Office of Teacher Certification. Currently, the director is Mr. John Maynard, who will be retiring July 1, 1980, and Dr. Emily Owens will be the director. She can be reached at 803/758-7624, Columbia.

4. NOTE: One correction is to be made on handout sheet, "Proposal Screening Procedures." Change the last sentence to read: "July 1, 1980 - The final contract will be awarded after this date." (It is not possible at this time to determine whether or not a special session of the State Budget and Control Board will approve the awarding of the contract before July 1, or if it will be necessary to have this done in the regularly scheduled July 10 session). Attention is also called to the notes at the bottom of the handout page: The lowest bidder will not necessarily be awarded the contract. The final contract will be in a form provided by the Educator Improvement Task Force.



Bidders' Conference, May 10, 1980

5. The RFP states that this is a cost/reimbursement contract; is the proposer approved for a fixed fee contract?

Yes.

6. By "paying schedule" does this imply the necessity to submit some sort of vouchers, etc. for costs, or is it a fixed fee with accompanying payment schedule?

Fixed fee with accompanying payment schedule is permissible.

7. The RFP states that the contractor must insure that the procedures are legally valid in South Carolina. If items are accepted and put into use and someone decided to sue, who would be sued? The contractor? South Carolina?

I cannot answer for an unknown plaintiff.

8. Will South Carolina hold the copyright to the test?

Reference: RFP, Page 4, 2 a. - "Should existing tests be used or adapted for use in the State of South Carolina, assurances will be required that the state would be granted exclusive rights for use for a period of not less than 10 years..."

9. Does the law apply to public teacher training institutions or are private institutions included?

It applies to all teacher training programs in South Carolina.

10. How many schools?

There are 28 teacher preparation programs in South Carolina. There is no one single source of information concerning the number of people trained. Schools would have to be contacted directly. I have learned that 3,800 to 4,000 applied for teacher certification last year.

11. Does that include out-of-state?

Yes.

12. The RFP states that "the evaluation of the technical proposals and cost or price are approximately of equal value," does that mean that you will weigh content equally to cost?

Yes.

13. The RFP states "informed consent of participating individuals will be obtained as necessary and data collected for test development and sample documentation purposes will be held in strictest confidence." What kinds of situations do you envision and what participants might be involved?

I can better tell you what we would not consider appropriate -- to gather data from persons whose consent was not forthcoming -- that they did not



Bidders' Conference, May 10, 1980

agree to such a data collection process. We would want their consent as participants.

14. Does this consent have to be documented? Get a signed release?

Yes, that is the intention.

15. Has the state developed objectives for the basic skills test?

No.

16. Is a list available of institutions of higher education in the state which have this sort of test?

There has been no effort on our part to determine which colleges and universities have such a test; however, we have heard that there are three in use.

17. What type of process do you have for defining content?

We have no process to propose to you.

18. What level of committee work, particularly with the Task Force, can be expected?

The Task Force is the decision-making body and there would be some decision points to be made during the completion of the instrument. At those times the developer would suggest to us, the Task Force would make decisions. It is up to the developer to propose the scheduling of how this would be done.

19. How extensive field testing would be acceptable?

It is up to the developer to propose and the reviewers and the Task Force to determine the adequacy.

20. Is there a preference for production writing versus multiple choice approach for the writing skills?

No.

21. Will the entire Task Force evaluate the proposals?

Yes.

22. Who will bear the expenses of the meetings with the Task Force?

The proposer should include their expenses in the budget. The Task Force expenses will be paid out of their own budget.

Bidders' Conference, May 10, 1980

23. Is there a feeling that it would be desirable to have South Carolina Educators review items or would it be acceptable to have this done out of state? If South Carolina reviewers are used, would the contractor bear the cost of travel and honoraria or would this be a cost of the State Department?

First question - Reference: Page 6, RFP, 2 - The "In SC" was added because the intention is that South Carolinians be used for validation.  
Second question - The contractor should provide for travel and honoraria in their budget.

24. Are there rules in South Carolina concerning the payment of honoraria to state employees?

\*State employees must file dual employment forms, and if their honoraria exceeds \$500, they will need to be approved by the Budget and Control Board.

25. In Georgia, the State Department of Education money paid to a contractor cannot be paid as honoraria to state employees; what is the policy in South Carolina?

\*State employees must file dual employment forms, and if their honoraria exceeds \$500, they will need to be approved by the Budget and Control Board.

26. Under "Validation Procedures", in order for the test to be validated, must the developer use South Carolina participants?

Yes.

27. The RFP states that the testing time must be in a range of 45-75 minutes for each of the three tests, do you interpret that in terms of a specific number of items?

No.

28. What kind of technical manuals do you mean under "deliverables"?

Instructions to students; test administration procedures, etc.

29. On the question of honoraria, in many states it is typical where it would be convenient for a group of teachers to review items while they would not be given any honoraria, the school districts from which they come would be given monies to pay substitutes. Would this be possible in South Carolina? Please find out typical pay for substitutes.

\*Teachers may be paid honoraria for after school work. It is suggested that arrangements with local school districts for release time of teachers be kept to a minimum. Examples of substitute teachers' pay in 10 districts ranged from \$20 to \$25 per day.

Bidders' Conference, May 10, 1980

30. The RFP states "The test administration process must include a procedure for continuing to generate and field test replacement items for tests and for producing new forms for future testing occasions"; will there be additional funding for that?

Currently, there is not any legislative funding for that. If it is a need that is necessary for continuing administration, the possibilities are up to the developer that one might continue negotiations with the State Department of Education.

31. Is there any provision for the fees from these testing sessions to provide for continued administration of the tests, test scoring, test score reporting and test revision?

There is no provision and no guarantee, but there is a possibility.

32. Do you know what the fee would be?

This is something for the developer to propose.

33. One of the deliverables is listed as actual test administration forms. Do you mean actual camera-ready copies of answer sheets?

Yes, we will need copies of answer sheets. Camera-ready is not called for in the RFP. That is for the developer to propose.

34. What type of final report is suggested? Something special in length?

The report must include validation procedures, discussion of how items were created and generated. The document would become the official document of the project.

35. Are there any provisions anticipated for handicapped students?

Nothing in the RFP; developer may propose.

36. In regard to the scoring procedure, what basic kinds of things are proposed? For example, the validation process, must those scores be returned to the student and the institution?

Developers will make proposal.

37. The RFP states that teacher training institutions must be sensitive to the students. What is your interpretation of this?

Perhaps you are reading something more into the RFP than is intended. The intent is that there must be a representative sample group from South Carolina and not just a single institution.

38. Please explain "under establishing minimum standards" the minimum performance scores must be established in a valid and legally defensible manner.

A procedure for making decisions legally defensible. The Task Force will make the ultimate decision; not the developer.



Bidders' Conference, May 10, 1980

39. Under "Deliverables" can some dates be manipulated?

Absolutely. Reference: RFP, page 6. This would be negotiated between the Task Force and the contractor.

40. Reference, Page 4, RFP - Items and Test Forms - Concerned about the implication that this consist of an item pool sufficiently large for three forms without mention of three equivalent forms -- not clear as to whether or not you expect three equivalent forms developed intact, or do you expect an item pool to be developed where you have items sufficiently large enough to pool items for three forms and also not clear on what is meant as a definition of equivalency unless that is up to the contractor to propose.

Answer to all -- that is up to the developer to propose. It is important that the developer begin with an item pool large enough that if, before this is weighed through the project, some items might not be validated, there are enough items left in the pool to devise.

41. Is the developer free to define equivalent forms.

Yes, and to justify.

42. Did you say that the test is to be administered twice a year?

Reference: Act 187, Page 2 - "Students may be allowed to take the examination no more than three times.....Administer the basic skills examination provided for in this section two times a year."

43. Does the contractor have to deliver three complete equivalent forms?

Yes.

44. In what form? Camera-ready? Number of copies?

That is not specified in the RFP; therefore, there are no criteria standards.

45. Would one copy of three forms be responsive to the RFP? You are not asking for 3,000 copies, are you?

No, specifically no number at all.

46. Who developed the RFP?

The staff, Task Force, several other reviewers, consultants from this and other states.

47. With reference to "access to study sites", would letters of support from institutions of higher education meet this requirement?

Yes.



Bidders' Conference, May 10, 1980

49. Reference RFP, page 12, 2 c: "Contractors will provide all basic equipment and facilities necessary to perform the proposed work. Exceptions may be granted by the Task Force and/or contract officer to authorize purchases from contract funds. What is an example?

This was included in the RFP so that private consultants who might not have immediate resources for equipment could make such provisions.

50. If this is a fixed fee contract, then it would be none of your business what the funds are expended for, would it?

Yes, I think it is our business since these are public funds and how that money is spent is a concern of ours.

51. Are auditing procedures suggested?

No.

52. I am concerned about the implicit requirement for cooperation from higher education and the contractor; can you talk about this -- especially the requirement that such cooperation is required and that letters of support are encouraged from the developer.

The gathering of the sample is up to the developer. This is not to imply that this is the only way a developer can get a sample.

53. How much can a contractor rely on your office or another appropriate office to act as a liaison, to set the groundwork, between the contractor and the institutions?

I think you can certainly count on the Task Force for cooperation and trying to facilitate what a contractor might need, but it is not appropriate to say that the Task Force has any legislative or governmental control. The Task Force of Act 187 establishes us as a separate entity from the State Department of Education and has no legal access to any institution and could not force any institution to participate.

54. If a proposer should suggest that it would be a good idea to have some representative group of classroom teachers throughout the state to serve as a panel and the proposal review panel looks at that and decides that it becomes a part of the winning proposal, would the contractor be responsible for soliciting cooperation of that group, or would the Task Force be responsible; or would the Task Force and the contractor share the responsibility? For instance, if we contacted them and they said they wanted nothing to do with it, who would resolve this because it would be part of a contractual agreement?

It would be up to the developer to propose what the action would be. The developer cannot assume that the Task Force might deliver something that in fact they cannot deliver, and, therefore, it would be up to the developer to assume the responsibility to secure the participation of whatever group is needed.

Bidders' Conference, May 10, 1980

55. What has been the teachers' reaction to the act?

I really cannot answer that. I have spoken with a number of individuals with a number of reactions.

56. There has been no organized effort for or against?

Correct.

57. Will there be organized effort?

Uncertain.

58. Is there a teacher union?

There are two teacher organizations in this state -- The South Carolina Education Association, and The Palmetto Teachers' Association.

59. There is something discomfoting in some of the language and spirit of the RFP regarding the obvious implication that it would be good to have South Carolina people involved, but also the implication that the client assumes no responsibility for the involvement of those people. It is the responsibility of the contractor yet the contractor comes in as a guest and he has no power to coerce people into cooperation even if coercion were desirable. It is quite possible that the proposer could write in some very desirable procedure which would cause the proposer to have to default if the individuals refused to cooperate and the contractor would have no way to force that cooperation. The only way out would be to have an alternative such as, the desirable way to do it is "such and such", however, if cooperation should not be available through solicitation, then option II would be used. Would this be an acceptable approach to the Task Force?

I think it would be an acceptable approach, but I cannot make a decision for the Task Force.

60. The RFP calls for a field test. If the developer were able to propose a highly innovative persuasive plan whereby field tests were not necessary, would that be acceptable? Is that one of the deliverables?

Reference: RFP, Page 4, c. A field test shall be undertaken. A field test must be included as one of the deliverables.

61. If changes are made in state travel, etc. by the State Budget and Control Board regulations after July 1, 1980, would these modifications be made?

Yes.

62. Relative to that, if you send out something, would you please include South Carolina regulations on travel, etc.?

State employees are reimbursed for mileage at .18 per mile; food, \$12 per day.

Bidders' Conference, May 10, 1980

63. Will contractors be held to the same regulations?

\*No.

64. Will there be one individual representing South Carolina in interfacing with the contractor or will the contractor interface with the entire Task Force?

I am the contracting officer in the sense that I serve in the capacity of the administrator; however, the entire Task Force, all eighteen people, have the ultimate authority to make decisions.

65. In the matter of a very minor modification of the RFP, where logic would dictate, would you be in a position to unilaterally make that decision or would you have to go back to the Task Force?

Minor is relative, but I think that when you say "minor things", I can make the decision. I will certainly facilitate that information if the developer needs to know something that is my responsibility to find out from the Task Force.

66. May I ask you to reconsider your response in terms of the strictness of the response to "a field test shall be undertaken" that says now that the field test is absolutely essential and must be done. Is it true that the purpose is to facilitate item revision, to document that the parallel forms are equivalent, and report data for reliability, that all three functions must be accomplished in a single field test? The implication that it is not a single field test but that at least a field test is undertaken. There is no technical way that I am aware of to do all three of these things in one operation.

In a single operation is not the intent of the statement.

67. Does the proposer propose a payment schedule?

Yes.

68. Are there any limitations, such as fiscal year, availability of funds, etc. on what that schedule would be? Will funds be available immediately at the beginning of project, or would they not be available?

\*There are no specific limitations. It generally takes from 5 days to 3 weeks to receive reimbursements.

69. When will a decision be made about the continuation of activities after the end of the contract?

I do not know. That is out of my agency and rests with the State Department of Education.



Bidders' Conference, May 10, 1980

70. You mentioned five tasks at the beginning of your remarks. Will you be issuing RFPs for all five?

There is this one. We are in the process of preparing the RFP for an observational instrument. Because of a vagueness in the law, it is not certain whether we will be entering into a sole source contract with ETS for the area examinations or whether they will be given to another contractor; probably not an RFP for training procedures since they seem to be closely related to the observational instruments. You will receive information on all of these.

71. Would it be appropriate to ask the names of other prospective bidders who are not here today?

Martha McLees, Winthrop College; Mary Sandifer, Columbia.

72. Will all bidders be notified if other questions come up?

We will get information to everyone as well as information on the two or three questions you have asked me to find out about.

May 14, 1980



# EXHIBIT

JUL 2 1980 NO. 1

STATE BUDGET & CONTROL BOARD  
THE SOUTH CAROLINA EDUCATOR IMPROVEMENT TASK FORCE  
1602 Bull Street at Taylor  
Columbia, South Carolina 29201

May 10, 1980

Proposal Screening Procedure  
RFP No. SC-EITF-001  
Development of Basic Skills Measures

<u>June 1, 1980</u>	All proposals must be postmarked on or before this date.
<u>June 4, 1980</u>	All proposals will be sent to a review panel of representatives from several concerned organizations in the state.
<u>June 4-12, 1980</u>	Proposals will be rated and assigned points as stated in the RFP.
<u>June 12-16, 1980</u>	The Educator Improvement Task Force staff will collapse and analyze the reviewers' ratings and select the three (3) top proposals.
<u>June 16, 1980</u>	The top three (3) proposals will be submitted to the Educator Improvement Task Force for their consideration.
<u>June 23-24, 1980</u>	The Educator Improvement Task Force will meet to discuss the proposals and make the recommendation for the final award.
<u>June 25, 1980</u>	The Task Force award selection will be submitted to the Attorney General's office for legal review.
<u>June 26, 1980</u>	The Attorney General's opinion will be submitted to the State Budget and Control Board.
<u>July 1, 1980</u>	The final contract will be awarded after this date.

NOTE: THE LOWEST BID WILL NOT NECESSARILY BE AWARDED THE CONTRACT.

THE FINAL CONTRACT WILL BE IN THE FORM PROVIDED BY THE  
EDUCATOR IMPROVEMENT TASK FORCE.

## EXHIBIT

## INDIVIDUAL RATERS FROM

SCEA, PALMETTO TEACHERS ASSOC., SCASA, PTA

JUL 2 1980

NO. 1

SCACTE, SDE AND TECHNICAL CONSULTANTS

STATE BUDGET &amp; CONTROL BOARD

RATERS	PDE	NES	USC	BEN	Rank Order	PDE	NES	USC	BEN
1	82	80	79	54		1	2	3	4
2	79	93	60	34		2	1	3	4
3	98	83	55	31		1	2	3	4
4	100	94	96	96		1	4	1.5	1.5
5	79	76	51	45		1	2	3	4
6	76	91	91	61		3	1	1	4
7	95	93	79	27		1	2	3	4
8	98	80	91	42		1	3	2	4
9	POINTS NOT SUBMITTED					1	2	3	4
10	81	77	78	17		1	3	2	4
11	90	100	85	45		2	1	3	4
12	63	56	63	18		1	3	1	4
$\Sigma_{tot}$	941	923	828	566	Mode	1	2	3	4
$\bar{X}$	85.55	83.91	75.27	51.45	Ranking				

INTER-RATER  
AGREEMENT USING  
RANK CORRELATION COEFFICIENT

PDE	V	NES	.89
PDE	V	USC	.90
PDE	V	BEN	.72
NES	V	USC	.91
NES	V	BEN	.72
USC	V	BEN	.88

## COST

PDE	74,813
NES	74,525
USC	77,199
BEN	278,586

# The South Carolina Educator Improvement Task Force

1602 Bull Street at Taylor, Columbia, South Carolina 29201, 803-758-3977

## EXHIBIT

JUL 2 1980 NO. 1

STATE BUDGET & CONTROL BOARD

June 13, 1980

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William E. Chaiken, Ph.D.  
Assistant Superintendent for  
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Florence District 1

The Honorable McKinley Washington, Jr.  
District 116, Charleston-Colleton

### Director

Josef F. Stulac II, Ph.D.

### Memorandum

To: Each Task Force Member  
From: Buzz Stulac *JFE*  
Subject: Basic Skills Contract Award

The materials in this package are confidential and not for public disclosure. They must all be returned to our office Monday, June 23, at our next Task Force meeting. Enclosed you will find the following:

- Proposals (technical and business) from  
Benedict College (BEN)  
National Evaluation Systems (NES)  
Planning, Development, and  
Evaluation Association (PDE)  
University of South Carolina (USC)
- Summary Sheet of reviewers' ratings and comments
- My analysis and recommendation

It will be your job to review these documents so that we can award a contract to one of the above proposers to develop the South Carolina Basic Skills Examination for Teacher Preparation.

/st

Enclosures

C17

BRIEFING STATEMENT  
6/13/80

STAFF ANALYSIS FOR BASIC SKILLS EXAMINATION DEVELOPMENT AWARD

Four Proposals were received by June 4, 1980, at our offices from:

Benedict College (BEN)  
National Evaluation Systems (NES)  
Planning, Development, Evaluation Associates (PDE)  
University of South Carolina (USC)

Copies of these proposals were reviewed for technical quality by 12 people plus the project staff. The reviewers were named by an executive of several educational organizations and represent South Carolina by race, sex, and geographical distribution. They were paid an honorarium of \$150 for their work (with the exception of the SDE member). The organizations were:

Palmetto Teachers Association - 2 persons  
Parent Teachers Association - 1 person  
South Carolina Association of Colleges for Teacher Education -  
1 person  
South Carolina Association of School Administrators - 2 persons  
South Carolina Education Association - 2 persons  
State Department of Education - 1 person  
Technical Advisors to Task Force Staff - 3 persons

The ratings and comments of these 12 reviewers are compiled for your examination. Of particular note is the high degree of agreement among the 12 in their ratings. Their interjudge agreement is extremely high. This indicates that consensus on the technical quality has been reached.

Mean Point Rating  
by 11 Reviewers

PDE	85.55
NES	83.91
USC	75.27
BEN	51.45

Mode Ranking  
by 12 Reviewers

PDE	1st (9 times)
NES	2nd (5 times, also 3
USC	1st and 3 3rd)
	3rd (7 times)
BEN	4th (11 times)

I am encouraged by these results because they lend confidence to my recommendation as follows:



BEN: This proposal used the largest sample size (5000 students), and developed the largest number of items (1350). However, it does not address appropriate validation procedures nor identify methods for establishing cutoff scores. We could not legally defend the results. The proposed budget of \$278,586 is exorbitant and luxuriously cushioned. My recommendation could not be made here.

USC: The strongest point of this proposal is the basis for determining which basic skills are to be used. By beginning with those validated in South Carolina that are expected in grades K through 12, the continuation of skills into college is consistent. (Recall Tractenberg's remarks about a Florida legal decision that implementation could not be done until students had time to prepare for new standards.) The proposal is strong in providing feedback to the student, in noting the exams' limitations, and in documenting all meetings and discussions with tape recordings and minutes. A question is raised but unanswered in the proposal about using field test results in writing to determine minimal performance standards. Is this not normative referencing? Weaknesses include a small sample of test items (180), few test administrations and locations (4), and perhaps an unwise choice without justification for establishing the reading level of teachers at eleventh grade (low?). The proposal was so poorly written (typos, awkward wordings, and grammatical errors) that I would be concerned about the quality of its public reports (ironically, they would develop tests for good writing). The budget was a major problem. There is no secretary provided; telephone answering machines would be used instead. An option would provide a secretary if more money were granted. However, it has already exceeded the budget limitation in the RFP by \$2200. (RFP p. 7, A3: "It is expected that a cost-reimbursement contract will be awarded in the range of \$50,000 but not in excess of \$75,000 for the one year effort involved.") If an award were made here, the Attorney General might have to deny it as unfair to the other two proposals. They could argue that for the additional funds their proposals would have been better as well and we would need to go through the entire review process again. The political merits of awarding this contract are debatable. My recommendation is not in favor of this proposal.

The following two proposals are nearly equal in overall quality but provide very different approaches to the task. I can recommend one over the other, but find both to be satisfactory. For brevity, I will highlight only their contrasting elements by strengths and weaknesses rather than those points they have in common.

NES: The developer has a proven record of performance and experience in this area. They use a Nedelsky method for calibrating test item difficulty which is simple rationale for justification in validation but still provides for loading weights. The Task Force has considerable input and responsibility in this proposal. Monthly reports from the developer are proposed and a "hotline" to their offices for all participants will be established (compare with USC recorded message). The major drawback of this proposal is the lack of a writing sample. They suggest to do one only for an additional and undisclosed amount. A word of caution is important. This proposal requires many decisions from the Task Force. A delay in decision-making would throw the timeline behind schedule. The proposed budget is \$74,525. I could recommend this proposal if a writing component were included at no extra cost. That is an unlikely circumstance without at least other trade-offs and time delays.

PDE: This proposal has a unique and workable system for item generation that includes a large item bank of 520 items. A writing example as well as multiple-choice questions are proposed for that examination area. The test security procedures are tight and explicit. The timeline is workable because it has fewer decision points. Although the company's personnel have impressive "track records" in delivering products and services, it is a new organization. The Angoff method for test item calibration is better and worse than Nedelsky's at the same time. It asks experts to determine percentages of students responding correctly to an item which may not be possible. However, this iterative process continues until all agree on the percentage weight. They go one step further in calculating p-values to provide normative data on the resulting implications of their "cut-scores." At this point the Task Force could reject an item for adverse impact. My only reservation with this proposal is that little involvement from the Task Force members is required. If the proposer were willing to include Task Force involvement more frequently without additional cost, it might increase its effectiveness. The proposed budget is \$74,813. This proposal has my highest recommendation.

A final administrative note: With Anna Reuben still out and Jim Rex and Carl Carpenter excluded at their own request, we have no teacher educators represented on the Task Force. Indeed, since their institutions are involved in one of the proposals a conflict of interest would be apparent if Jim and Carl were to vote on the decision. However, the Basic Skills Examination impacts most seriously on college and universities and no one at our next meeting will be able to offer their insight.

I have spoken with Jim and Carl to learn whether or not they would feel comfortable sitting with us during the contract award discussion. They agreed that they could. Furthermore, they have a higher interest level in the Basic Skills outcome than simply part of a small one-year grant when its consequences are considered.

The question must then go to the Task Force members. Can others feel comfortable in discussing the proposals in front of Jim and Carl? If not, Jim and Carl would like to excuse themselves. Otherwise, I would like to include them in our deliberations but not the decision. This will be our first order of business Monday evening.



INDIVIDUAL RATERS FROM  
SCEA, PALMETTO TEACHERS ASSOC., SCASA, PTA  
SCACTE, SDE AND TECHNICAL CONSULTANTS

RATERS	PDE	NES	USC	BEN	Rank Order	PDE	NES	USC	BEN
1	82	80	79	54		1	2	3	4
2	79	93	60	34		2	1	3	4
3	98	83	55	31		1	2	3	4
4	100	94	96	96		1	4	1.5	1.5
5	79	76	51	45		1	2	3	4
6	76	91	91	61		3	1	1	4
7	95	93	79	27		1	2	3	4
8	98	80	91	42		1	3	2	4
9	POINTS NOT SUBMITTED					1	2	3	4
10	81	77	78	17		1	3	2	4
11	90	100	85	45		2	1	3	4
12	63	56	63	18		1	3	1	4
$\Sigma_{\text{tot}}$	941	923	828	566	Mode	1	2	3	4
$\bar{X}$	85.55	83.91	75.27	51.45	Ranking				

INTER-RATER  
AGREEMENT USING  
RANK CORRELATION COEFFICIENT

PDE	V	NES	.89
PDE	V	USC	.90
PDE	V	BEN	.72
NES	V	USC	.91
NES	V	BEN	.72
USC	V	BEN	.88

COST

PDE	74,813
NES	74,525
USC	77,199
BEN	278,586

## INDIVIDUAL REVIEWERS' COMMENTS: PDE

Strengths

1. It is the best technical presentation out of four.
2. It has the best standards' setting procedure.
3. It addresses all major issues in detail to respond to the requirements of the RFP.
4. It has an ambitious timeline; however, most likely to complete project on time.
5. It has an item bank for ongoing testing.

Weaknesses

1. The proposer excluded classroom teachers on the Technical Advisory Committee.
2. It has too small of a sample for field-testing.
3. It set a poor standard for the writing exam. The writing sample standard would not be legally defensible. Assessment would remain subjective on the part of the rater(s).
4. Question raised concerning legal defensibility of subjective writing components.

## INDIVIDUAL REVIEWERS' COMMENTS: NES

Strengths

1. The proposal is well written.
2. The reviewers like the proposer's willingness to include S.C. educators at every stage of the project; the proposer emphasizes cooperation.
3. The staff appears to be well qualified but they will need to work to get needed cooperation from districts and SDE.
4. The field test of 420 items and final pool items of 360 are good.

Weaknesses

1. The timeline for the total project is not given.
2. Group size and gaining access to subjects is a problem.
3. No reference to maximizing use of currently available exams or systematically involving those currently administering them.
4. Test equating procedures not specified in detail.
5. No discussion in basic proposal of score reporting procedures to individuals or institutions.
6. No proposal plan for further item development.



## INDIVIDUAL REVIEWERS' COMMENTS: USC

Strengths

1. This proposal is most oriented to South Carolina.
2. The proposal presents good use of colleges and public schools.

Weaknesses

1. The advisory structure suggested in the proposal is not clear.
2. The proposal is not specific - detail in plan is lacking.
3. Nowhere in the proposal does it allow for validation of writing sample scores nor is it allowed in the timeline.
4. The sampling should be representative of public school populations rather than higher education.
5. The proposal has a sloppy typing job; numerous grammatical errors.
6. Objectivity of the proposed writing sample.
7. It is inappropriate for this proposer to set minimum standards beyond a college entrance level (p. 5).
8. Six objectives per field and sixty items for three forms per field are too limited.
9. The proposal did not adequately address establishing reliability of parallel forms for each exam nor proposed any procedure for future item development and data processing.

## INDIVIDUAL REVIEWERS' COMMENTS: BEN

Strengths

1. This proposal presents a good outline for dates to accomplish tasks.
2. The writing of the proposal is excellent.
3. The use of a writing sample for the writing exam is good.

Weaknesses

1. There is no work plan to carry out the proposal.
2. The field-testing with teachers is questioned; field-testing students most nearly equivalent to those who will be tested by the final product seems more feasible.
3. A composition section for the writing exam is mentioned, but never clarified in the proposal (p. 6, writing #1).
4. The proposal pre-sets the reading and writing domain apparently without any consultation with the State Department of Education or the Educator Improvement Task Force.
5. It is very doubtful that the work plan proposed would meet the intent of the law. That is, law and requirements are not integrated with overall scope of work.
6. The proposed 40 resource persons are not adequate.
7. The proposal shows little proposed contact with colleges, public schools, or the State Department of Education.
8. The proposal reads like an academic exercise and not as a plan for accomplishing a specific task in a tight time period.

# EXHIBIT

JUL 2 1980 NO. 1

STATE BUDGET & CONTROL BOARD  
SOUTH CAROLINA EDUCATOR IMPROVEMENT TASK FORCE  
1602 Bull Street at Taylor, Columbia, S.C. 29201

REQUEST FOR PROPOSAL

RFP NUMBER: SC-EITF-001

"Development of Basic Skills Measures"



DATED MATERIAL - OPEN IMMEDIATELY

Closing Date - June 1, 1980



THE SOUTH CAROLINA EDUCATOR IMPROVEMENT TASK FORCE  
1602 Bull Street at Taylor, Columbia, South Carolina 29201

Refer to Request for Proposal  
Number: SC-EITF-001  
Issue Date: May 1, 1980  
Due Date: June 1, 1980

Ladies and Gentlemen:

You are invited to submit a proposal in accordance with the requirements of Request for Proposal Number SC-EITF-001 for the development and validation of Basic Skills Examinations to be administered to all students admitted to teacher education/training programs at higher education institutions in the State of South Carolina. Funding for the scope of work in this Request for Proposals has been appropriated by the Legislature of the State of South Carolina as part of the full implementation of Act No. 187 of the 1979 session of the South Carolina General Assembly. Supervision of work relevant to an ensuing contract is under the auspices of the Educator Improvement Task Force of the General Assembly.

Your proposal must meet the conditions and requirements of this solicitation and must be received by the Contracting Officer no later than 2:00 p.m. (local time at the place designated for receipt of offers) on June 1, 1980, at the following address:

Educator Improvement Task Force  
1602 Bull Street at Taylor  
Columbia, South Carolina 29201  
Attention: Josef F. Stulac II  
(Contracting Officer)  
RFP No. SC-EITF-001

Special attention is directed to the completion of the enclosed certifications concerning compliance with federal and state regulations.

This RFP does not commit the Educator Improvement Task Force to pay any cost for the preparation and submission of a proposal. It is also brought to your attention that the contracting organization is the only source that can legally commit the public funds of the State of South Carolina in connection with this proposed procurement.

A bidders' conference meeting will be held at 10:00 on Saturday morning, May 10, at the above address. Should more information be needed before that date, please telephone Dr. Stulac at (803) 758-3977. If a representative of your organization will be attending, please notify this office.

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SECTION I - SCOPE OF WORK

A



## THE DEVELOPMENT AND VALIDATION OF BASIC SKILLS EXAMS

### A. Introduction

This procurement is for the design, development and validation of basic skills examinations in Reading, Writing, and Mathematics to be used as one admission criterion for students applying for entrance into teacher education/training programs in institutions of higher education in the State of South Carolina. A single contractor will be chosen to develop these instruments from July 1, 1980, to July 1, 1981. The Educator Improvement Task Force of the State of South Carolina may exercise an option to renew the contract for additionally related products to assist in the transition from instrument development to full implementation. The products and activities described herein, however, are considered deliverable on the dates specified. No extensions of this particular contract will be made. Authorization for the scope of work is described in Act No. 187 of the 1979 session of the South Carolina General Assembly (see enclosures). The project will be supervised under the direction of the Educator Improvement Task Force established in Act No. 187 through contact with the contract officer.

Products to be delivered to the Task Force include basic skills examinations in each of the three areas noted above, technical manuals for the separate instruments, written recommendations for establishing minimum performance standards, a description of administration, scoring, and score reporting systems suitable for meeting state needs, and a final project report. The Educator Improvement Task Force and/or the contract officer will have unrestricted access to any data collected through this project. In addition, the contractor will be requested to undergo selected milestone reviews at key points in the project through meetings with the Task Force and/or the contract officer.

### B. Rationale for the Work Proposed

Prior to the signing of Act 187, the commons portion of the National Teacher Examination was used in South Carolina with some unsatisfactory outcomes. Because of concerns about the quality of teachers in the State of South Carolina, the 1979 General Assembly made the decision to establish a "fair and comprehensive program for the training, certification, initial employment and evaluation of public educators in the State." Part of this effort (see Act No. 187) requires assurances that prospective teachers have basic reading, mathematics, and writing skills. This procurement addresses the need to design, develop, and field test basic skills examinations in each of the three areas identified. Some teacher preparation institutions in the State of South Carolina currently require prospective teachers to take and pass basic skills examinations at minimum proficiency levels to meet entrance standards. There is, however, no single set of instruments for use throughout the State to meet the intent of Act No. 187. This procurement addresses requests for proposals to design, develop, and field test such a set of instruments.

### C. General Overview of the Developmental Effort

1. Act No. 187 of the South Carolina General Assembly (1979) provides for the

"Development or selection of a basic skills examination in reading, writing, and mathematics that is suitable for determining whether students should be fully admitted into an undergraduate teacher education program. The examination shall be designed so that results can be reported in a form that will provide the colleges, universities, and student with specific information about his strengths and weaknesses. Procedures, test questions and information from existing examinations shall be used to the maximum extent in the development of the examination. The examination shall be validated in accordance with current legal requirements. The passing score on the examination shall be set at a level that reflects the degree of competency in the basic skills that, in the judgment of the State Board and Task Force, a prospective school teacher reasonably should be expected to achieve."

It is anticipated that the development of the basic skills instruments will encompass at a minimum the following activities.

#### a. Specifying and validating test domains

The basic skills tests shall be designed to ensure that teacher education program candidates possess the minimum cognitive skills desirable for functioning as a school teacher in South Carolina. Skills which are beyond those considered minimally essential should not be included in the development of test domains. Possible domains in mathematics, for example, might include computation, problem solving, geometry, etc. A minimum of four subtest (skill) areas must be included in each of the tests in order to provide diagnostic feedback to individuals tested and to their teacher training institutions. The number of items needed to adequately assess each skill area must be justified by the developer.

#### b. Developing and validating test items

A pool of test items shall be created to correspond to each of the test domains. The item pool shall be sufficiently large to facilitate constructing a minimum of three alternate test forms in each of the three content areas (reading, math, and writing).

#### c. Field tests and item revision

A field test of the basic skills instruments shall be conducted and used as the basis for item revisions where necessary. Field test data should also provide information to be used to make decisions regarding test validity and to make recommendations concerning procedures for establishing minimum performance standards for admission to teacher education/training programs.

2. Act No. 187 also provides that:

- (1) Student may initially take the basic skills examination during his first or second year in college.
- (2) Students may be allowed to take the examination no more than three times.
- (3) If students have not passed the examination, they may be conditionally admitted to a teacher education program. Such admittance shall not exceed one year. If they have not passed the examination within one year of the conditional admittance, they will not be allowed to continue in the teacher education program.
- (4) The basic skills examination be administered two times per year.
- (5) The results of the examination be reported to the colleges, universities and students in such form that they will be provided specific information about strengths and weaknesses and given consultation to assist in improving performance.

An administration procedure for the basic skills tests must be established to comply with the intent of these provisions of the law. It is expected that once operational statewide, test administration, scoring, feedback, and item revision will be financed by monies accumulated through reasonable student fees associated with taking the tests.

3. A procedure for establishing minimum standards for each test must be designed so as to reflect the "degree of competency in the basic skills..... a prospective teacher should reasonably be expected to achieve." Separate decisions about minimum competency are necessary for each of the three basic skill areas; thus, three sets of standards will be established.

While the ultimate decisions with regard to setting standards rests with the Task Force and the State Board of Education, the contractor shall describe a set of procedures for making these determinations and shall provide relevant data so that these decisions can be made in a reliable and legal manner.

#### D. Specific Tasks to be Performed

##### 1. Development of basic skills exams

a. Three content area examinations in basic academic skills are to be developed . . . Reading, Mathematics, and Writing. A pass/fail decision is to be made for each student on each of these three tests. A student will be expected to take all three examinations on one testing occasion. A testing occasion is not necessarily defined as one "sitting." A testing time in the range of 45 to 75 minutes is expected for each of the three tests.

b. A pool of test items shall be developed for each of the three tests. Validated test domains are to be used as a guide to item development and for performance feedback (score reporting) to individuals and institutions. The validation procedures proposed by the developer must be legally justifiable for use in South Carolina.



These domains, however, will not be used as the basis for pass/fail decisions. Pass/fail decisions will be made at the total test score level for each of the three tests. The item pool developed for each test should be sufficiently large to facilitate the generation of at least three equivalent forms of each test. Multiple or singular item types and formats can be proposed. The item pools should be large enough to reliably assess subskills specified by domains within each of the three tests.

c. A field test shall be undertaken to facilitate item revision, to document that the parallel forms are equivalent, and to report data on reliability. As a guide to decision-making, additional information should be provided concerning minimum standards and validation as described in Act No. 187.

2. Specification of administration, scoring, and score reporting systems for the basic skills exams developed

a. Multiple test forms are a necessity since the tests are to be given throughout the state on a regularly scheduled basis. A procedure must be devised to ensure that test items are not disseminated outside the testing context. Thus, prospective contractors must propose a set of procedures for maintaining test and test item security. Should existing tests be used or adapted for use in the State of South Carolina, assurances will be required that the state would be granted exclusive rights to use for a period of not less than 10 years. The contractor must guarantee the security of the tests developed if they are used outside the State of South Carolina. The test administration process must include a procedure for continuing to generate and field test replacement items for the tests and for producing new forms for future testing occasions.

b. Standardized procedures for administering the tests must be included in the final set of deliverables so that testing can be done from one setting and one testing to the next under essentially similar conditions.

c. A scoring procedure must be developed so that the intent of the provisions of Act No. 187 are met. Students must have subtest scores reported for each of the domains developed for each of the three tests. This provision has been made so that specific diagnoses of strengths and weaknesses within the three basic skill areas can be made for both individuals and institutions. Each individual tested and each teacher education/training institution must receive performance profiles for the three tests. It is recommended that a single score reporting form providing results for all three basic skills tests be developed. Information returned to institutions of higher learning must be in a form that these institutions can use for program planning and/or evaluation.

d. Between three and four thousand students are expected to enter teacher education programs throughout the State of South Carolina each year. Each of these students will be required to demonstrate minimum performance standards on each of the three basic skills tests. Fees from these testing sessions are expected to provide for the continued administration of the tests, test scoring, test score reporting, and test revision. The contractor is expected to demonstrate that this

procedure is feasible given the proposed activities for test development, score reporting, etc. Creating this plan for maintaining the test system is one of the contract deliverables. However, there is no guarantee that the contractor for this procurement will receive a subsequent contract to administer and maintain the basic skills testing system.

### 3. Establishing minimum standards

- a. Each candidate must demonstrate acceptable performance levels on each of the three basic skills examinations. The minimum performance scores must be established in a valid and legally defensible manner. A validation procedure for collecting information to make recommendations about setting minimum standards must be proposed along with a plan for collecting data necessary to make the decisions. It will be necessary to specify what groups will be involved at each step of the plan. The contractor will gather the required data and make a recommendation for approval by the Task Force regarding procedures for establishing minimum standards. The Task Force in conjunction with the State Board of Education will make the final decision regarding minimum standards for each of the tests.
- b. Procedures for establishing minimum performance standards should be based on the consideration that the basic skills exams to be developed are not "norm-referenced," but should be designed to determine that minimum performance standards in each of the three basic skill areas have been reached. In this regard, consideration should be given to the opportunity to take the examinations a maximum of three times and to equate forms of the tests in such a manner that minimum performance standards for various test forms are essentially the same. Proposed standards can vary from one basic skills test to the other. However, the predicted effects of the varying standards proposed should be explained.

### E. General schedule of activities and associated deliverables

The list of proposed activities and deliverables which follows represents an approximate schedule of events regarding the conduct of the basic skills examination project. Final dates for deliverables and completion of key activities will be negotiated between the contractor and the Educator Improvement Task Force and/or the contract officer. Ultimate decisions regarding the resolution of differences rest with the Educator Improvement Task Force and/or the contract officer.

See schedule page 6.

Item	Completion Date	Deliverable
Contract award and project startup	July 1, 1980	Signed contract
Validated test domains for each basic skills test	October 1, 1980	Document describing test domains and the validation procedures in South Carolina
*Milestone Review meeting between Contractor and Task Force or contract officer	October 15, 1980	Brief written description of project activities
Validation of test items	January 15, 1981	Document describing test item development and validation procedures
*Milestone Review meeting between Contract and Task Force or contract officer	January 30, 1981	Brief written description of project activities
Piloting instruments with students in the field	March 15, 1981	Document describing pilot test procedure and general findings
Recommendations regarding procedures for setting minimum standards	May 15, 1981	Document reporting validation findings with written recommendations
Draft of each test and alternate forms	May 15, 1981	Drafts of each of three forms for three tests
Technical manual drafts for each basic skills test	May 15, 1981	Technical manual drafts
*Milestone Review meeting between Contractor and Task Force or Contract Officer	May 30, 1981	None
Administration, scoring, and score reporting system for basic skills tests	June 15, 1981	Document describing procedures
Final technical manuals	June 30, 1981	Technical manuals for each of the three basic skills tests
Final basic skills test	June 30, 1981	Each basic skills test and accompanying alternate forms
Final project report	June 30, 1981	Written report describing all project activities with appropriate documentation

\*Dates of Milestone Review meetings are to be negotiated contingent on contracted schedule of project activities.



SECTION II - INSTRUCTIONS TO OFFERORS

#### A. General Instructions

1. These instructions establish minimum requirements for the format and content of proposals in response to this solicitation. Attention is directed to the requirements for technical and business proposals to be submitted in accordance with these instructions.

2. The evaluation of technical proposals and cost or price are approximately of equal value.

3. It is expected that a cost-reimbursement contract will be awarded in the range of \$50,000 but not in excess of \$75,000 for the one year effort involved. In addition to the special provisions of this request for proposal, any resultant contract shall include the general provisions applicable to the selected offeror's organization and type of contract awarded. Any additional clauses required by Public Law, Executive Order, or procurement regulations, in effect at the time of the execution of the proposed contract will be included.

4. The proposal shall be in two parts: a "Technical Proposal" and a "Business Proposal." Each of the parts shall be separate and complete in itself so that evaluation of one may be accomplished independently of but concurrently with evaluation of the other. The technical proposal shall not contain any reference to costs. However, some resource information, such as subcontracts, should be contained in the technical proposal so that readers can understand the exact nature of the work proposed. The technical proposal must describe in as much detail as possible how the activities in the Scope of Work will be carried out.

5. The proposal shall be signed by an official authorized to contractually bind the contracting individual or organization. Ten (10) copies of the technical proposal and ten (10) copies of the business proposal shall be submitted to:

Educator Improvement Task Force  
1602 Bull Street at Taylor  
Columbia, South Carolina 29201  
Attention: Josef F. Stulac II  
(Contracting Officer)  
RFP No. SC-EIFT-001

Proposals must be postmarked no later than midnight, June 1, 1980.

6. The proposals submitted in response to this solicitation may contain technical data which the offeror does not want used or disclosed for any purpose other than for evaluation of the proposal. In these cases, such data can be restricted if the offeror marks the cover sheet of the proposal with the following legend which specifies the pages of the proposal which are to be restricted:

"Technical data contained in page(s) \_\_\_\_\_ of this proposal shall not be used or disclosed, except for evaluation purposes. Provided, that if a contract is awarded to this offeror as a result of or in connection with the submission of this proposal, the Educator Improvement Task Force shall

have the right to use or disclose this technical data to the extent provided in the contract. This restriction does not limit the Educator Improvement Task Force's right to use or disclose technical data obtained from another source without restriction."

The Educator Improvement Task Force assumes no liability for disclosure or use of unmarked technical data and may use or disclose the data for any purpose and may consider the proposal as not submitted in confidence and therefore, releasable under the Freedom of Information Act.

7. The Task Force will evaluate technical proposals in accordance with the criteria set forth in the technical proposal instructions.

8. The Task Force reserves the right to make a contract award without further discussion of the proposals received. Therefore, offerors are encouraged to submit an initial proposal in the most favorable terms possible regarding quality of work and cost-effectiveness.

9. The Task Force reserves the right to reject any or all proposals received. It also reserves the right to make proposals received part of the official Task Force file.

10. Elaborate brochures and other attachments beyond what is sufficient to present a complete and effective proposal should not be submitted. Elaborate art work, visual displays, expensive paper and bindings, etc. are not desired and are considered unnecessary to describe proposed objectives and activities for the project.

11. Prospective contracts considered for award will be required to give acceptable assurances that the project activities described in the proposal will be subject to initial and continuing review as needed by the Educator Improvement Task Force. This review shall assume that the rights and welfare of the individuals involved are protected and that any risks to the individual are far outweighed by the potential benefits to him or by the importance of the knowledge to be gained. Informed consent of participating individuals will be obtained as necessary and data collected for test development and sample documentation purposes will be held in strictest confidence. Offerors should directly address these issues in applicable parts of their proposals.

#### B. Technical Proposal Instruction and Evaluation Criteria

It is expected that a variety of personnel and contract or subcontract arrangements will be submitted in response to this request for proposals. However, any proposed project will have a senior level person ultimately responsible for directing project activities and working with the Task Force as necessary.

At a minimum, offerors should address the following topics in their technical proposals. The proposals will be generally evaluated according to the points assigned. Areas of concern listed under each sub-area will not necessarily be equally weighted in assigning proposal evaluation points.

1. Understanding of the problem and technical approach

a. Analysis of the tasks: Offerors should present their own analysis of the art and science of the development of basic skills measures



as a background and justification of their research and development plans. Through this discussion, the offeror should demonstrate a thorough understanding of the topic to be addressed and at the same time, sensitivity to the realities of individual students and higher education institutions.

b. Selection of study sites: Proposals should specifically describe the number of sites (institutions) and subjects (students) which offerors believe to be necessary in order to meet the requirements and specifications of the Scope of Work. An emphasis here is on a representative sample of South Carolina teacher training institutions. The method of selecting sites and subjects should be specified with rationales provided for selection criteria. Offerors should explicitly discuss external factors possibly influencing or influenced by their proposed plans. Benefits and risks should also be specified in as much detail as possible.

c. Access to study sites: This topic is sensitive and will require tactful work by the contractor to gain access to higher education institutions to carry out the scope of work. The proposal should include a discussion of problems likely to be encountered in this effort, and how the offeror will attempt to solve them. Proposals endorsed by higher education institutions as possible participants are encouraged.

d. Use of advisors and consultants: A set of specific tasks, duties, and responsibilities of advisors/consultants, if any, should be included in the proposal. A tentative list should be proposed for such arrangements, with special attention to those who can guide aspects of the proposed project regarding women or minorities. Letters of endorsement of project efforts and agreement to participate as consultants/advisors are encouraged. (The proposed budget should reflect costs necessary for the work of advisory/consultant personnel.)

e. Confidentiality of information: Offerors should propose and discuss plans for safeguarding the identity of participating institutions and individuals upon whom data are to be collected since such data are sensitive. The offeror must propose a plan for the protection and final disposal of all personally identifiable data on individuals and institutions.

f. Schedule: The offeror must provide a schedule in chart form for undertaking activities relevant to accomplishing the Scope of Work and producing required "deliverables." Schedules shall be shown in terms of work objectives, proposed activities, responsible personnel, time lines, completion dates, and deliverables (where applicable).

g. Requirement for discussion of specific tasks: Proposals which merely offer to conduct a program in accordance with the Task Force's specified Scope of Work will not be eligible for award. The offeror must submit an explanation of the proposed technical approach in conjunction with the specification of tasks to be performed in achieving project objectives. Rationale for all major proposed work activities to accomplish the Scope of Work must be provided.

h. Abstract: The offeror must provide an abstract of approximately 250-300 words describing the proposed project in clear, non-technical language.

## 2. Statement of qualifications

The general statement of proposed staff members' qualifications must include a description of organizational and staff experience, as well as actual professional resumes. Staff such as clerical and secretarial personnel are exempt from this requirement.

a. Organizational and staff experiences: Offerors must describe their qualifications and experience to perform the work described in this RFP. A precise statement describing the research and development experience of the principal investigator(s) and other proposed senior staff members as related to the general topic of the RFP and to the specific Scope of Work should be included. Special notation should be given to similar or related work activities or projects undertaken by key personnel proposed. Similarly, characteristics and qualifications of organizations and institutions to carry out the proposed project should be included.

b. Personnel: Full-time and part-time staff, proposed consultants and subcontractors who will be assigned direct work on this project should be named. Information is desired that will show the composition of a task or work group or subcontractor. Special mention should be made of any special technical supervisors proposed and the approximate percentage of time each will be available for this project.

(1) Resumes of staff and proposed advisory/consultant personnel must be included with the proposal. These should include critical information such as educational background and training and a description of professional experiences (particularly recent ones) related to the Scope of Work.

(2) A staffing plan should be included which specifies for each proposed staff member the assignment of specific tasks and responsibilities, the amount of time proposed to be part of the project, and salary level.

(3) Additional personnel, if any, who will be required for full-time employment or on a subcontract or consultant basis must be designated. The technical areas, character, and extent of subcontract or consultant activities must be indicated and the offeror will specify the anticipated sources and give their qualifications for the work proposed.

## 3. Technical Proposal Evaluation Criteria

### a. Quality of technical approach

50 points

Reviewers will focus their reviews on:

-Thoroughness, objectivity, and creativity of the analysis of the proposed tasks, including familiarity with the problem, past work, and general sensitivity to the needs of students, higher education institutions, and the State of South Carolina.

- Thoroughness, soundness and creativity of plans to carry out the Scope of Work including sensitivity to problems of gaining access to subjects and institutions for field testing examinations.
- Likely utility of the proposed products for carrying out the intent of Act No. 187.
- Likelihood that the proposed activities and deliverables will be completed by the time lines specified in the proposal.

b. Qualifications of staff

30 points

Reviewers will focus their reviews on:

- Experience and training of principal staff in basic research and development methods and basic disciplines relevant to the Scope of Work and the proposed activities.
- Past productivity of principal staff in carrying studies through from plans to finished products.
- Experience of staff in preparing materials useful to decision-makers but easily communicated to the general public.
- Experience of staff in gaining access to institutions of higher education, schools and school districts for studies and maintaining sufficient rapport to ensure project success.
- Ability to write clearly, as shown in the quality of the proposal submitted.
- Breadth and qualifications of any proposed advisory/consultant staff members.

c. Quality of management plans

20 points

Reviewers will focus their reviews on:

- Likely effectiveness of proposed management structure for the proposed project, including clarity of responsibility for overall project direction as well as for more specific aspects of the activities proposed.
- Quality of discussion and plans for involving any proposed advisory/consultant personnel in specific project activities.
- Degree to which the proposed management plan is likely to result in the project's completion and success within the time frame specified by the legislative act.

TOTAL POSSIBLE POINTS: 100 points



### C. Business Proposal Instructions

#### 1. Cost and pricing data

The offeror at a minimum must submit cost proposals fully supported by cost and pricing data adequate to establish the reasonableness of the proposed amounts for the levels of efforts specified. A detailed proposed budget must be attached and include (but not limited to):

- a. The cost for individual elements such as development of basic skills test domains, item pools, project reports, instrument manuals, etc.
- b. The estimated cost of each segment or phase of the proposed work. Budget projections must coincide with remuneration and costs at milestones from page 6.
- c. The cost of any work completed by consultants and/or subcontractors.
- d. Breakdown of direct labor costs (including any benefits) estimated by major functional areas and personnel. The time proposed for the project and current and projected salary level for all staff members should be detailed.
- e. Overhead rates and supporting schedules for these costs should be specified.
- f. Breakdown of costs of materials should be included. These should be segregated into appropriate categories such as purchased parts, subcontracted and leased items, and other categories.
- g. Travel estimates supported by breakdown of within and out-of-state travel including destination, duration, distance, purpose and cost.
- h. Institutional/organizational contributions where appropriate.

#### 2. Other administrative data

- a. The proposal shall stipulate that it is predicated upon the assumptions, terms, and conditions of this particular RFP. In addition, it shall contain a statement that it is a firm offer to the Educator Improvement Task Force of the State of South Carolina for a period of at least 60 days from the date of receipt by the contract officer.
- b. The proposal shall list the names, addresses, and telephone numbers of the persons authorized to conduct negotiations with the Task Force and/or contract officer.
- c. Contractors will provide all basic equipment and facilities necessary to perform the proposed work. Exceptions may be granted by the Task Force and/or contract officer to authorize purchases from contract funds. Each of these procurement activities must be

negotiated. If additional equipment must be acquired in order to meet the objectives of the proposal, the contractor shall include a description and estimated cost for each item. Purchase of proposed equipment will then be subject to negotiation with the Task Force and/or contract officer.

3. Representations and certifications

Copies of this section (Section III) of the proposal must be executed by an official authorized to legally bind the offeror and made a part of the business proposal.

### SECTION III - APPENDICES

- A. Act No. 187
- B. Assurances
- C. Cover Page



## ASSURANCES

During the performance of this Contract, we will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicapping condition. We will take affirmative action to insure that qualified applicants are employed and that all relationships with employees are treated without regard to their race, color, religion, sex, national origin, or handicapping condition. Such actions shall include, but shall not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. We agree to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this non-discrimination clause.

---

Signature of Authorized Official

---

Date

---

Address

State of South Carolina  
Educator Improvement Task Force

Proposal Responding to:  
RFP Number: SC-EITF-001  
"Development of Basic Skills Measures:

1. Complete Name of Organization
2. Mailing Address
3. Project Director and Telephone Numbers
4. Abstract Describing Proposed Project (300 Word Limit)
5. Project Director _____ Signature Title _____ Date _____
6. Organizational Authorized Representative _____ Signature Title _____ Date _____

# The South Carolina Educator Improvement Task Force

1602 Bull Street at Taylor, Columbia, South Carolina 29201, 803-758-3977

## SCORING INSTRUCTIONS FOR THE REVIEW COMMITTEE

### Chairman

William E. Chaiken, Ph.D.  
Assistant Superintendent for  
Instruction  
Anderson District 5

### Vice Chairman

Carl A. Carpenter, Ph.D.  
Assistant to Vice President  
for Academic Affairs  
South Carolina State College  
Orangeburg

### Secretary

Carol J. Hay, Teacher  
Laurens District 56, Clinton

### Members

Martha Jean Bolus, Teacher  
Folly Beach

The Honorable Philip T. Bradley  
District 21, Greenville

The Honorable Harry A. Chapman, Jr.  
District 2, Greenville

William T. Cooke, Jr., D.D.  
Pastor, Trinity United Methodist  
Fountain Inn

H.E. Cooley, Ed.D., Superintendent  
Richland District 2, Columbia

The Honorable Robert C. Lake, Jr.  
District 5, Newberry

Joseph E. Myers, Jr., Principal  
Berkeley County Schools  
Moncks Corner

The Honorable Elizabeth J. Patterson  
District 4, Spartanburg

Jean U. Phillips, Teacher  
Oconee County Schools  
Walhalla

The Honorable Lewis Phillips  
District 18, Greenville

Anna O. Reuben, Ed.D.  
Dean of Academic Affairs  
Morris College, Sumter

James H. Rex, Ph.D., Dean  
School of Education  
Coastal Carolina College  
Conway

Charles A. Spann, Sr.  
Board of Trustees  
Spartanburg District 7

Louise T. Scott, Ph.D., Director  
Instructional Improvement  
Florence District 1

The Honorable McKinley Washington, Jr.  
District 116, Charleston Colleton

### Director

Josef F. Stulac II, Ph.D.

The scoring criteria for the Basic Skills Proposal are derived through the point system with a maximum of 100 points recommendable for the total proposal. There are three quality areas for review: technical approach, qualifications for staff, and management plans of the proposal; each area has its maximum quality points. The review committee is expected to review each proposal and judge its quality according to each of the designated areas. The review committee is expected to:

- 1) Assign quality points to each sub-category under each major category. The spreading of quality points must not exceed the maximum for a given sub-category.
- 2) Write additional remarks, if necessary, adjacent to each sub-category.
- 3) Once each sub-category has been assigned quality points, proceed to the bottom of the second page to add the total possible recommended quality points derived from each major category.
- 4) Total all quality points sections. Remember, recommended total quality points must not be exceeded for any of the three sections, thus yielding a total possible 100 points.
- 5) Finally, any additional comments that will further strengthen the review are welcome.

As a "blind review" we have deleted the identification of the proposer within the text and have assigned numbers instead. Also, we have removed letters of support and budget statements so that the technical quality can be judged on its own merit.

As soon as you have finished rating these four proposals, please return them along with the evaluation sheets to our office by overnight EXPRESS MAIL. Your mailing expenses will be included with your \$150 honorarium check. We must receive the proposals in our office by noon, Thursday, June 12, if not sooner.

## EXHIBIT

JUL 2 1980 NO. 1

STATE BUDGET & CONTROL BOARD

Josef F. Stulac II

June 4, 1980

048



EDUCATOR IMPROVEMENT TASK FORCE  
 REVIEWERS RATING GUIDE FOR PROPOSALS

TECHNICAL PROPOSAL EVALUATION CRITERIA	MAXIMUM QUALITY POINTS	
A. <u>Quality of technical approach</u>	<u>50</u>	
Reviewers will focus their reviews on:		
-Thoroughness, objectivity, and creativity of the analysis of the proposed tasks, including familiarity with the problem, past work, and general sensitivity to the needs of students, higher education institutions and the State of South Carolina.		
-Thoroughness, soundness and creativity of plans to carry out the Scope of Work including sensitivity to problems of gaining access to subjects and institutions for field testing examinations.		
-Likely utility of the proposed products for carrying out the intent of Act No. 187.		
-Likelihood that the proposed activities and deliverables will be completed by the time lines specified in the proposal.		
B. <u>Qualifications of staff</u>	<u>30</u>	
Reviewers will focus their reviews on:		
-Experience and training of principal staff in basic research and development methods and basic disciplines relevant to the Scope of Work and the proposed activities.		
-Past productivity of principal staff in carrying studies through from plans to finished products.		
-Experience of staff in preparing materials useful to decision-makers but also easily communicated to the general public.		

# REVIEWERS RATING GUIDE FOR PROPOSALS

Page 2

TECHNICAL PROPOSAL EVALUATION CRITERIA	MAXIMUM QUALITY POINTS	
B. <u>Qualifications of staff cont'd</u>		
-Experience of staff in gaining access to institutions of higher education, schools and school districts for studies and maintaining sufficient rapport to ensure project success.		
-Ability to write clearly, as shown in the quality of the proposal submitted.		
-Breadth and qualifications of any proposed advisory/consultant staff members.		
C. <u>Quality of management plans</u>	20	
Reviewers will focus their reviews on:		
-Likely effectiveness of proposed management structure for the proposed project, including clarity of responsibility for overall project direction as well as for more specific aspects of the activities proposed.		
-Quality of discussion and plans for involving any proposed advisory/consultant personnel in specific project activities.		
-Degree in which the proposed management plan is likely to result in the project's completion and success within the time frame specified by the legislative act.		

TOTAL QUALITY POINTS SECTION - A --

TOTAL QUALITY POINTS SECTION - B --

TOTAL QUALITY POINTS SECTION - C --

TOTAL POSSIBLE POINTS: (100 points)

DIRECTIONS: RECOMMENDED TOTAL QUALITY POINTS MUST NOT BE EXCEEDED FOR ANY OF THE THREE SECTIONS. WITHIN THESE UNITS, YOU MAY ASSIGN ANY NUMBER OF POINTS TO EACH SUB-CATEGORY. THIS WILL REFLECT BOTH STRENGTH AND EMPHASIS OF THE PROPOSAL.

Comments:

050

JUL 10 1980

# The State of South Carolina



## Office of the Attorney General

WILLIAM P. SIMPSON  
ASSISTANT ATTORNEY GENERAL

WADE HAMPTON OFFICE BUILDING  
POST OFFICE BOX 11549  
COLUMBIA, S.C. 29211  
TELEPHONE 803-758-8667

DANIEL R. McLEOD  
ATTORNEY GENERAL

July 9, 1980

William A. McInnis, Deputy Executive Director  
State Budget and Control Board  
Office of Executive Director  
212 Wade Hampton Office Building  
Columbia, South Carolina 29201

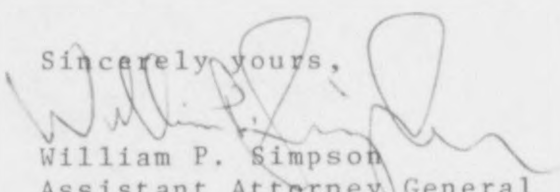
RE: Educator Task Force Procedures for  
Awarding Basic Skills Examination  
Contract

Dear Mr. McInnis:

This will confirm our recent telephone conversation in which I related to you that this Office has reviewed and approved the procedures followed by the South Carolina Educator Improvement Task Force in the above-referenced contract. I personally looked over the steps and documentation that were followed by the Task Force and found them to be quite in order.

If I may be of any further help to you on this matter, please let me know.

Sincerely yours,

  
William P. Simpson  
Assistant Attorney General

WPS:rmr  
cc: Josef F. Stulac, II

051



*Feb / May*  
EXHIBIT

JUL 2 1980 NO. 1

STATE BUDGET & CONTROL BOARD

A PROPOSAL FOR THE  
DEVELOPMENT OF BASIC SKILLS MEASURES

BUSINESS PROPOSAL

PREPARED BY:

PLANNING, DEVELOPMENT & EVALUATION  
ASSOCIATES, INC.

MAY, 1980

C52

A PROPOSAL FOR THE  
DEVELOPMENT OF BASIC SKILLS MEASURES

BUSINESS PROPOSAL

PREPARED BY:

PLANNING, DEVELOPMENT & EVALUATION  
ASSOCIATES, INC.

MAY, 1980

CONTACT PERSON:

DR. TOM D. FREIJO, PRESIDENT  
PDE ASSOCIATES, INC.  
P.O. BOX 17288  
TAMPA, FLORIDA 33682  
(813) 932-3558

## 6.0 BUSINESS PROPOSAL

This section presents a budget summary, a budget detail, and a set of contract conditions. These presentations appear in Figure 6.1, 6.2, and 6.3, respectively.



FIGURE 6.1 BUDGET SUMMARY

	<u>Manpower</u>	<u>Supplies and Services</u>	<u>Printing</u>	<u>Computer Services</u>	<u>Travel</u>	<u>Fieldtest Administrators/ Proctors</u>	<u>Overhead</u>	<u>TOTAL</u>
<u>GENERAL PLANNING</u>								
a. Meeting with Deans/TAC/UPS	\$ 3,500	\$ 50			\$ 2,400		\$ 357	\$ 6,307
b. Develop Results Usage Plan	1,000	100			1,400		150	2,650
<u>SKILLS/ITEM DEVELOPMENT</u>								
a. Identify Skills	2,500	100			1,800		264	4,664
b. Develop Test Blueprint	500	50					33	583
c. Develop Item Specifications	4,000	200			1,600		348	6,148
d. Write Items	5,100	400					330	5,830
<u>ITEM VALIDATION</u>								
a. Conduct Reviews	3,500	150			2,400		363	6,413
b. Conduct Fieldtest	10,000	1,000	\$2,480		1,300	\$2,000	1,007	17,787
c. Analyze Fieldtest Results	4,000			\$1,500			330	5,830
<u>FINAL PRODUCTS PREPARATION</u>								
a. Develop Pass/Fail Standards	2,500	50			1,700		255	4,505
b. Develop Item Bank System	4,000	50					243	4,293
c. Develop Maintenance Plan	2,500	50					153	2,703
d. Produce Final Test Materials and Reports	<u>4,600</u>	<u>550</u>			<u>1,548</u>		<u>402</u>	<u>7,100</u>
TOTAL	\$47,700	\$2,750	\$2,480	\$1,500	\$14,148	\$2,000	\$4,235	\$74,813

FIGURE 6.2 BUDGET DETAIL

Personnel

T. Freijo - 34 days @ \$150 .....	\$5,100.00
Perez - 53 days @ \$150.....	7,950.00
K. Freijo - 54 days @ \$150 .....	8,100.00
Bernknopf - 39 days @ \$200 .....	7,800.00
Rentz - 32 days @ \$200 .....	6,400.00
Secretary 50% for 12 mo. @ \$11,000 .....	5,500.00
Troutman - 4 days @ \$200 .....	800.00
West - 4 days @ \$200 .....	800.00
Michael - 4 days @ \$200 .....	800.00
Bowen - 15 days @ \$100 .....	1,500.00
Cuervo - 15 days @ \$100 .....	1,500.00
Homan - 4 days @ \$150 .....	600.00
Graphics Artist - 2 days @ \$100 .....	200.00
Layout Artist - 2 days @ \$100 .....	200.00
Scorers - 6 days @ \$75 .....	450.00
Fieldtest Administrators - 15 days @ \$100 .....	1,500.00
Fieldtest Proctors - 10 days @ \$50 .....	<u>500.00</u>

SUB-TOTAL PERSONNEL .....\$ 49,700.00

Travel-Contractor

T. Freijo - 7 trips to Columbia	
Airfare - 7 trips @ \$188.00.....	1,316.00
Perdiem - 10 days @ \$50.00.....	500.00
Rental Car - 10 days @ \$35.00.....	350.00
K. Freijo - 7 trips to Columbia	
Airfare - 7 trips @ \$188.00 .....	1,316.00
Perdiem - 10 days @ \$50.00.....	500.00
Perez - 2 trips to Columbia	
Airfare - 2 trips @ \$188.00 .....	376.00
Perdiem - 10 days @ \$50.00 .....	500.00
Bernknopf - 7 trips to Columbia	
Airfare - 7 trips @ \$116.00 .....	812.00
Perdiem - 10 days @ \$50.00 .....	500.00
Rental Car - 4 days @ \$35.00 .....	140.00
Rentz - 4 trips to Columbia	
Airfare - 4 trips @ \$116.00 .....	464.00
Perdiem - 6 days @ \$50.00 .....	300.00

SUB-TOTAL CONTRACTOR'S TRAVEL..... \$7,074.00

Travel-South Carolina Educators

Deans Meeting - 28 participants	
Mileage - 28x150 miles x \$.18 .....	\$ 756.00
Perdiem - 28x \$12 .....	336.00
UPS Meeting - 9 participants	
Mileage - 9x150 miles x \$.18 .....	243.00
Perdiem - 9x \$12 .....	108.00
DSSS Meeting - 15 participants (one 2-day meeting)	
Mileage - 15 x150miles x \$.18 .....	405.00
Perdiem - 30x \$12.....	360.00
Motel - 30x \$25 .....	750.00
IRS Meeting - 15 participants (one 2-day meeting)	
Mileage - 15x150x \$.18 .....	405.00
Perdiem - 30x \$12.....	360.00
Motel - 30x \$25.....	750.00
Standards Meeting - 28 participants (one 2-day meeting)	
Mileage - 28x150x \$.18 .....	529.00
Perdiem - 56x \$12.....	672.00
Motel - 56x \$25 .....	1,400.00

SUB-TOTAL - SOUTH CAROLINA TRAVEL..... \$ 7,074.00

Printing

1800 fieldtest booklets @ \$1.00 .....	1,800.00
1800 answer sheets @ \$.10 .....	180.00
Formatting .....	500.00

SUB-TOTAL PRINTING..... \$ 2,480.00

Supplies and Services

Office supplies.....	200.00
Shipping .....	1,000.00
Correspondence .....	50.00
Long distance calls 50 @ \$10.00 .....	500.00
Copying/binding .....	1,000.00
Computer service .....	1,500.00

SUB-TOTAL SUPPLIES/SERVICES ..... \$ 4,250.00

DIRECT COSTS .....	\$70,578.00
OVERHEAD @ 6%.....	\$ 4,235.00

TOTAL ..... \$74,813.00



### FIGURE 6.3 CONTRACT CONDITIONS

1. This proposal is predicated upon the assumptions, terms and conditions described in the request for proposals from the South Carolina Educator Improvement Task Force entitled "Development of Basic Skills Measures", and numbered "SC-EITF-001". The proposal contained herein is a firm offer to the Educator Improvement Task Force of the State of South Carolina for a period of sixty (60) days from the date of receipt by the contract officer.
2. This proposal is submitted in anticipation of the negotiation of a fixed-price contract between the Task Force and the proposer. The following payment schedule is proposed:
  - Payment 1 - \$20,000 on September 15, 1980
  - Payment 2 - \$20,000 on January 15, 1981
  - Payment 3 - \$20,000 on April 15, 1981
  - Payment 4 - \$14,813 upon delivery of all final products and reports
3. The proposed Contractor shall make every reasonable effort to secure the cooperation of South Carolina educators and agencies whose input and cooperation are described in Section 2.0 of the Technical Proposal. However, should it prove impossible to secure the cooperation of said South Carolina educators and/or agencies for any proposed activities, the Contractor shall be at liberty to use educators and/or agencies outside the State of South Carolina to complete project activities.

*File / 1000*

# EXHIBIT

JUL 2 1980 NO. 1

STATE BUDGET & CONTROL BOARD

## A PROPOSAL FOR THE DEVELOPMENT OF BASIC SKILLS MEASURES

TECHNICAL PROPOSAL

PREPARED BY:

PLANNING, DEVELOPMENT & EVALUATION  
ASSOCIATES, INC.

MAY, 1980

059

State of South Carolina  
Educator Improvement Task Force

Proposal Responding to:  
RFP Number: SC-EITF-001  
"Development of Basic Skills Measures"

1.	Complete Name of Organization: Planning, Development & Evaluation Associates, Inc.
2.	Mailing Address: Post Office Box 17288, Tampa, Florida 33682
3.	Project Director and Telephone Number: Tom D. Freijo, Ph.D., President Telephone: (813)932-3558
4.	<p>Abstract Describing Proposed Project:</p> <p>The Contractor will meet with the deans or chief administrators of the 28 South Carolina teacher training programs, and a representative of the South Carolina State Department of Education (SDE) teacher certification office to present project goals and procedures, and seek their reactions to project procedures. Each dean will appoint a representative from his/her institution to serve on a Technical Advisory Committee (TAC). The TAC will be divided into three subcommittees as follows: Usage Plan Subcommittee (UPS); Domains, Skills and Specifications Subcommittee (DSSS); and Item Review Subcommittee (IRS).</p> <p>Based upon input received from the UPS, the Contractor will develop a test results usage plan and will develop reporting formats for communicating test results to examinees, institutions, and the SDE.</p> <p>The DSSS will provide the Contractor with input for identifying skill domains. After skill domains have been finalized, the Contractor will examine existing tests and develop a test blueprint to guide in the development of items for the tests. Once skill statements have been determined, the Contractor will develop item specifications to facilitate the development of items.</p> <p>The Contractor will develop approximately 520 multiple-choice items for measuring reading and mathematics skills. In addition, the Contractor will develop writing exercises to measure skills in the writing domain. Items will be reviewed internally and by the IRS. A readability analysis will be conducted to ensure that items are within acceptable reading difficulty ranges.</p> <p>The Contractor will conduct a fieldtest of items in South Carolina teacher training institutions. Rasch model procedures and traditional item analysis procedures will be used to analyze fieldtest results.</p> <p>Both judgmental and empirical approaches will be used to collect data to allow the Task Force to set standards for passing the test.</p> <p>The Contractor will develop an item storage, updating and retrieval system and a plan for maintaining an ongoing testing program.</p>
5.	Project Director <u>Tom D. Freijo</u> Signature Title <u>President</u> Date <u>May 30, 1980</u>
6.	Organizational Authorized Representative <u>Tom D. Freijo</u> Signature Title <u>President</u> Date <u>May 30, 1980</u>



ASSURANCES

During the performance of this Contract, we will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicapping condition. We will take affirmative action to insure that qualified applicants are employed and that all relationships with employees are treated without regard to their race, color, religion, sex, national origin, or handicapping condition. Such actions shall include, but shall not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. We agree to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this non-discrimination clause.

Tom D. Freijo

Signature of Authorized Official  
Tom D. Freijo, Ph.D., President

May 30, 1980

Date

P.O. Box 17288

Address

Tampa, Florida 33682

A PROPOSAL FOR THE  
DEVELOPMENT OF BASIC SKILLS MEASURES

TECHNICAL PROPOSAL

PREPARED BY:

PLANNING, DEVELOPMENT & EVALUATION  
ASSOCIATES, INC.

MAY, 1980

CONTACT PERSON:

DR. TOM D. FREIJO, PRESIDENT  
PDE ASSOCIATES, INC.  
P.O. BOX 17288  
TAMPA, FLORIDA 33682  
(813) 932-3558

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## 0.0 INTRODUCTION

This proposal is in response to a request for proposals from the South Carolina Educator Improvement Task Force entitled "Development of Basic Skills Measures", and numbered "SC-EITF-001". The proposer is Planning, Development & Evaluation Associates, Inc. For purposes of brevity, hereafter in this proposal Planning, Development & Evaluation Associates, Inc. (PDE) will be referred to as the "Contractor", and the South Carolina Educator Improvement Task Force will be referred to as the "Task Force".

The proposer recognizes the importance that the Task Force places upon the timely implementation of project plans, the selection and use of highly qualified personnel, the maintenance of stringent security measures, the development of high quality testing products, the careful review and fieldtesting of all testing products, and the careful organization and documentation of project deliverables. The proposer places equal importance on each of these matters, and each is discussed in detail within the body of this proposal.

The proposer offers a special combination of measurement/research expertise and curriculum/instruction expertise that has made the proposer highly effective in conducting numerous projects to develop criterion-referenced minimum competency tests and to conduct statewide assessment programs. Members of the proposer's staff have been highly involved in all phases of minimum competency criterion-referenced testing programs, including statewide programs at the college and university level. Their activities have included involvement in developing and reviewing minimum skills statements; developing and reviewing item specifications; developing, piloting, reviewing and formatting test items; analyzing test results to determine program needs and individual student remediation needs; conducting program reviews and recommending needed revisions; and developing instructional materials to be used in compensatory programs.

The proposer has developed approximately 2,000 such test items, in several item development projects for Florida's Statewide Student Assessment Program. Each of these projects involved developing items designed to measure specific objectives. The proposer also has developed a series of criterion-referenced production writing tests and associated analytical scoring procedures, used at grades three, five, eight and eleven in Florida's Statewide Student Assessment Program, as well as the Essay component of Georgia's Regents' Testing program.

An integral element in all of the proposer's item development projects has been close coordination with clients to ensure a clear understanding of the intent of a testing program and the data needs of curriculum planners and other program managers. The proposer enlists the expertise of experienced item writers who also are highly credentialed as subject area specialists. Item writers are thoroughly oriented to the special considerations in each project, and are trained to develop items consistent with the client's needs and evaluation purposes. As items are developed, they are subjected to careful and tedious internal review to assure sound curriculum and measurement integrity. Items are then pilot tested, scored, and subjected to the curriculum and measurement review of the client and select



review committees of the client's choosing. Consistent with the client's recommendations, revisions are effected and items are formatted into final test booklets.

The proposer understands that the Task Force desires tailor-made skills and test items that match the intent of the South Carolina teacher preparation and certification program and that coincide with the socio-politico-cultural context of South Carolina. The proposer also understands that the Task Force desires to have input into the procedures employed in each major project activity to ensure that products not only are of high quality, but that the end products of the projects are consistent with the purposes of the assessment program. The proposer is equally desirous of maintaining close contact with the Task Force throughout the project, and producing deliverables which optimally meet the Task Force's needs. It is the proposer's intention that major project decisions be made in a forum in which the best current measurement procedures and the Task Force's needs are the bases for choosing among alternative procedures.

The remainder of this proposal contains the following sections: 1.0 Project Overview, 2.0 Work Plan, 3.0 Management Plan, 4.0 Personnel Qualifications, 5.0 Corporate Capability, Organization and Resources, and 6.0 Business Proposal (under separate cover).

## 1.0 PROJECT OVERVIEW

This section addresses the context of the proposed project and provides an overview of proposed project procedures.

### 1.1 Project Context

Prior to 1979 the commons portion of the National Teacher Examination was used to assess exit skills for graduates of South Carolina teacher training institutions; results from this exam were somewhat unsatisfactory. Because of concerns regarding the quality of teachers in the State of South Carolina, in its 1979 session the South Carolina General Assembly enacted legislation which had as its goal to establish a "fair and comprehensive program for the training, certification, initial employment and evaluation of public educators in the State." This legislation is set forth in the South Carolina Legislative Act No. 187. Legislative Act No. 187 also created an eighteen-member task force to oversee the development and implementation of all aspects of the legislation. This task force was given the name "South Carolina Educator Improvement Task Force".

Part of Act No. 187 requires assurances that prospective teachers have basic reading, mathematics, and writing skills. Some teacher preparation institutions in the State of South Carolina currently require prospective teachers to take and pass basic skills examinations at minimum proficiency levels to meet entrance standards. There is, however, no single set of instruments for use throughout the State to meet the intent of Act No. 187.

This proposal is in response to the need for the development and validation of basic skills examinations which will constitute part of the admissions mechanism for applicants to teacher training programs in the State of South Carolina. All applicants will be required to take and pass the basic skills tests prior to being accepted as candidates in teacher training programs. Those applicants who fail the tests may be granted a one-year conditional admission, and will be provided two additional opportunities to pass the tests and gain unconditional status. Feedback from test administration will be provided to examinees and to teacher training institutions to facilitate remediation efforts.

### 1.2 Overview of Project Procedures

The Contractor will invite the deans or chief administrative officers of the 28 South Carolina teacher training programs, along with a representative of the South Carolina State Department of Education (SDE) teacher certification office to meet with the Contractor at the beginning of the project. At this meeting, the Contractor will orient the deans regarding project goals and procedures, and will seek their reactions to project procedures. Each college dean also will be asked to appoint a representative from his/her institution to serve on a Technical Advisory Committee (TAC), which will advise the Contractor throughout the life of the project. The Technical Advisory Committee will be divided into three

subcommittees as follows: Usage Plan Subcommittee (UPS); Domains, Skills and Specifications Subcommittee (DSSS); and Item Review Subcommittee (IRS).

The Contractor will meet with the UPS to discuss the purpose of the testing program, and ways that results from the testing program can be used most beneficially. Based upon input received during this meeting, the Contractor will develop a test results usage plan. Input from this meeting also will be used in developing reporting formats for communicating test results to examinees, institutions, and the SDE.

The Contractor will meet with the DSSS to discuss procedures for identifying skill domains. The DSSS will provide the Contractor with input into the content for the various skill domains which are identified. Based upon this input, the Contractor will finalize the skill domains, and also will develop a test blueprint to guide in the development of items for the test.

Once skill statements have been determined, the Contractor will develop specific item specifications to facilitate the development of items. When item specifications have been completed, the DSSS will be reassembled to conduct, under direction of the Contractor, a formal review of each item specification.

The Contractor will develop approximately 520 multiple-choice items for measuring reading and mathematics skills. In addition, the Contractor will develop writing exercises to measure skills in the writing domain.

When all of the items have been developed, they will be reviewed internally by the Contractor, and also will be reviewed by a group of South Carolina educators. The reviews of the items will focus on technical adequacy, content fidelity, geographic and social fidelity, and item bias. In addition to the item reviews, the Contractor will apply a readability formula to all items to establish that the items are within acceptable reading difficulty ranges.

Following the review of items and appropriate revisions, the Contractor will plan and implement a fieldtest of the items in South Carolina teacher training institutions. Rasch model procedures and traditional item analysis procedures will be used to analyze fieldtest results, and to judge the adequacy of items for inclusion in the final item pool.

A combination judgmental and empirical approach, which is consistent with the latest research on standard-setting, will be used to collect data to allow the Task Force to set standards for passing the test in a highly defensible manner.

Two major tasks will be accomplished by the Contractor to facilitate the Task Force in maintaining the testing program to be developed during this project. First, the Contractor will develop an item storage, updating and retrieval system which will allow for



systematic development of new items, and the monitoring of item performance throughout the life of the project. Second, the Contractor will develop a plan for maintaining the testing program. This plan will address issues such as test administration, test scoring, test reporting, test security, test distribution, ongoing item generation, and receipt control.

## 2.0 WORK PLAN

This section of the proposal presents detailed descriptions of each of the major proposed project activities. The proposed Work Plan calls for several committees and subcommittees. To facilitate the reader in differentiating the activities of these groups and to facilitate the reader in viewing the temporal relationships between project activities, two charts have been included at the end of the Work Plan. Figure 2.1 presents a chart showing each impaneled group and its proposed activities. Figure 2.2 presents a flowchart that displays project activities.

### 2.1 Interaction with College Deans

This section presents the Contractor's rationale and procedures for interacting with the deans of South Carolina's twenty-eight (28) teacher training institutions.

2.1.1 Rationale. In a testing program designed to be used in deciding whether students possess the basic skills necessary to enter the teaching profession or to complete a professional training program, it is imperative that those who are familiar with the profession and with its training programs be involved in planning the testing program. Because the deans or administrators of teacher training programs have ultimate responsibility for the design, implementation, and updating of teacher training programs, these people should be informed regarding plans for the testing program and should have input into those plans.

2.1.2 Procedures. The Contractor will invite the deans or chief administrative officers of the twenty-eight (28) South Carolina teacher training programs, along with a representative from the South Carolina State Department of Education (SDE) teacher certification office, to meet with the Contractor at the beginning of the project. At this meeting, the Contractor will orient the deans regarding project goals and procedures. Their reactions will be solicited regarding any perceived difficulties with planned procedures, and suggestions will be sought for expediting project activities.

A committee that will continue to serve in an advisory capacity throughout the life of the project will be established at this time. This committee will be called the Technical Advisory Committee (TAC). Each college dean will be asked to appoint a representative from his/her institution to serve on the TAC. A representative of the SDE also will be appointed to serve on the TAC. The deans will be asked to appoint TAC representatives in such a way as to equally distribute TAC expertise in the three basic skills content areas. Members of the TAC also should be selected for their knowledge and understanding of the major issues related to the teaching profession and its pre-service personnel training needs.

The Contractor will ask that the members of the TAC be grouped into three (3) subcommittees with specific responsibilities related to various phases of the project. The three (3) proposed subcommittees will be involved in the following activities:

- 1) The Usage Plan Subcommittee (UPS) will advise the Contractor on developing a test results usage plan;
- 2) The Domains, Skills and Specifications Subcommittee (DSSS) will advise the Contractor in identifying skills domains and skills statements and in developing item specifications; and
- 3) The Item Review Subcommittee (IRS) will assist the Contractor in reviewing test items.

Membership in the DSSS and in the IRS must include at least one specialist in each of the three basic skills content areas. The Contractor also will ask the State Department of Education teacher certification office to recommend one member of the SDE to serve on each subcommittee.

Because of the highly specialized nature of the activities of the DSSS and the IRS, the Contractor proposes that these subcommittees be augmented by the inclusion of six highly regarded school-based principals. The TAC will be asked to recommend three South Carolina secondary school principals and three South Carolina elementary school principals to serve on each of these subcommittees. The Contractor proposes that the DSSS and the IRS be constituted such that each reflects representation of both sexes and of the racial, ethnic and cultural groups in South Carolina, as well as representation from both rural and urban areas of the State.

The specific nature of each subcommittee's activities is described in following sections of this proposal. The Contractor will reimburse subcommittee members for all project-related travel expenses.

## 2.2 Development of Test Results Usage Plan

This section presents the Contractor's rationale and procedures for developing a test results usage plan.

- 2.2.1 Rationale. Although testing experts are in agreement that the purpose and proposed use of test results must be known to develop measurement instruments that are optimally functional, the step of determining the purpose and proposed use of test results often is ignored in the initial stages of test development projects. A testing program such as the one proposed should respond to the Task Force's desire to provide examinees and institutions with diagnostic information regarding examinee performance. Test results also could provide valuable information to be used in examining the needs of lower division and earlier educational programs. These and



other considerations are critical to the effectiveness of a testing program. To ensure that test results respond to users' needs, it is essential that testing program planning be sensitive to users' needs.

Decisions related to a results usage plan also must be sensitive to reporting needs. Because a results usage plan to some extent dictates reporting possibilities, it is important that both the desired format and structure of overall reporting and the differential reporting formats and structures for examinees, institutions and agencies be considered in the results usage planning stage.

- 2.2.2 Procedures. The Contractor will meet, in a one-day session with the Usage Plan Subcommittee (UPS) to discuss how test results will be used, specific data needs, and reporting formats and structures that will facilitate the overall and differential use of test results for their intended purposes. Based upon the subcommittee's input at this meeting, the Contractor will develop a test results usage plan.

### 2.3 Development of Skills Domains and Skills Statements

This section presents the Contractor's rationale and procedures for developing skills domains and skills statements.

- 2.3.1 Rationale. A fundamental activity related to planning a testing program is the careful identification of those content areas to be addressed through test items. After content areas have been identified, the skills domains to be tested must be identified. In a testing program such as the one proposed, very careful consideration must be given to decisions regarding what should be tested. If the testing program is to identify those students who likely would be unsuccessful in the training program and in the teaching profession, it will be necessary to conscientiously identify skills domains where competency is deemed desirable or essential.

Once skills domains have been identified, decisions must be made about the specific skills or competencies that examinees are expected to demonstrate. Identifying skills and developing skills statements for a testing program is an iterative process. Curriculum specialists must first identify, for each domain, those skills considered to be essential. After an initial corpus of skills statements has been developed and reviewed, it is then necessary that curriculum and measurement specialists begin to work in close cooperation throughout the remainder of the planning stage.

The initial set of desirable skills must be looked at in light of various measurement phenomena. The need to test large numbers of students and to acquire performance results within a reasonably short period of time often necessitates the

use of a multiple-choice item format. Although many skills can be assessed quite reasonably in this way, considerable skill alteration can sometimes result. Not only is it necessary to look carefully at changes that occur when an essentially production-based task is transformed into a task involving identifying, selecting, matching, etc., it is also necessary to determine whether setting up a multiple-choice item, even though the skill task would not seem to change substantially, introduces an additional skill requirement in order that the examinee respond. These issues must be addressed and resolved at the outset. If they are not resolved deliberately, they will be resolved by default. Without a cooperative effort involving both curriculum and measurement specialists, the issues likely will be resolved in less than satisfactory ways. Measurement specialists typically are not prepared to consider curriculum issues in making these decisions; curriculum specialists typically are not prepared to consider measurement issues in making these decisions. With the cooperation of both groups, tested skills are likely to be more pertinent and results are more likely to be valuable.

This kind of cooperative effort sometimes results in agreement that although some skills are highly desirable, it simply is not feasible to evaluate them through test items. In other cases, the decision often is made to test essentially production-based skills through the use of a production format. This decision frequently is the solution to difficulties in testing writing skills.

A cooperative effort between measurement and curriculum specialists helps to ensure that the final corpus of skills identified for measurement do, in fact, constitute a corpus of meaningful and necessary skills, rather than a group of skills that simply are easily measured.

Another issue which should be addressed in planning a testing program is the reading difficulty level of items. Item reading difficulty level (item readability) is beginning more and more to be recognized by measurement experts as having potentially serious impact upon test performance. Inappropriately high item readability in test items designed to measure mathematics or writing skills can seriously contaminate performance results. Likewise, inappropriately high or low item readability levels on test items designed to measure reading skills may indicate mastery or non-mastery of skills when, in fact, the inverse may have been indicated if an appropriate reading difficulty level had been present.

- 2.3.2 Procedures. The Contractor will develop tentative plans for domain and skill identification and will convene the Domain, Skills and Specifications Subcommittee (DSSS), in a two-day session, to present these plans. During this session, the Contractor and the DSSS will finalize domain selection in each content area, will generate skills statements for each domain,

and will determine in consultation with the task force, the desired and appropriate readability level for items in each skill area and for all passages to be used in assessing reading comprehension skills.

The DSSS then will work cooperatively with the Contractor's measurement specialists as the effects of measurement phenomena on skills are examined and decisions are made to resolve issues that arise from that examination.

Once domains have been identified and skills statements have been finalized, the Contractor will develop a test blueprint to guide the remainder of the item development and test forms assembly phases of the proposed project. A test blueprint is analagous to an item specification in that the blueprint serves to establish the parameters of test forms in much the same way that item specifications establish the parameters for test items. The Contractor's blueprint will specify the content areas and content domains to be tested on each test form. The blueprint also will specify for each form the number of test items per domain, the number of items per skill, and the number of items per format where both multiple-choice and production formats are being used.

After domains and skills have been identified, the Contractor will examine items on existing tests identified by the DSSS as being appropriate, in whole or in part, for use in this testing program. Test items found by the Contractor to be appropriate for the identified domains and skills will be considered for use in the proposed testing program.

## 2.4 Development of Item Specifications

This section presents the Contractor's rationale and procedures for developing item specifications.

2.4.1 Rationale. Once skills statements have been agreed upon, it is necessary to develop item specifications. Item specifications serve to provide operational definitions of skills for purposes of measuring them. Item specifications are a set of detailed blueprints which specify the characteristics, content parameters, conceptual difficulty level, reading difficulty level, and format of items. A good set of item specifications provides the item writer with a comprehensive set of guidelines for developing items.

Item specifications have come, more and more in recent years, to be recognized as an essential element in any test development program. The use of item specifications to develop test items helps to ensure that each item will, in fact, measure what it is meant to measure. The use of item specifications becomes even more critical in an ongoing testing program that calls for item development to continue periodically through time, often by different groups of item writers. The possibility for undesirable variation among items designed to measure a single skill is increased when different groups write



items and when item writing continues at periodic intervals. Item specifications serve to reduce this variation and facilitate the development of uniform test items. A sample of an item specification is presented in Appendix B.

The development of a good set of item specifications once again requires a combination of measurement knowledge and an intimate understanding of the skill area for which the specifications are being developed. Item specifications should be developed by people who are highly expert in the skill areas under consideration and who also are experienced item writers.

- 2.4.2 Procedures. It is imperative that those who develop item specifications have a profound grasp of the skill area for which they are writing specifications, and that they also have a sound grasp of item writing principles and procedures. The Contractor's staff of item specification writers, all of whom are highly experienced item writers, expert in their skill areas, and highly familiar with basic skills in a university setting, will develop item specifications for the proposed project.

The Contractor will conduct a one-half day session to orient its item specifications writers to the proposed project. The orientation will address the following topics/activities:

- a. General Orientation to the Project;
- b. Delineation/Discussion of Procedures/Responsibilities for Maintaining Test Security;
- c. Discussion of Purposes/Characteristics of the South Carolina Teacher Testing Program;
- d. Introduction to Project Skill Domains and Skills Statements;
- e. Specifications Writing Responsibilities;
- f. Practice Writing Session;
- g. Review/Discussion of Practice Specifications; and
- h. Logistics for Completing Specifications Writing Task.

The Contractor's item specification writers will complete the initial development of item specifications for each skill statement. Once specifications have been developed they will undergo both curriculum and measurement reviews by the Contractor's staff. The DSSS then will be reassembled for one day to conduct a formal review of each specification. Members of the DSSS will be provided a detailed review form and will conduct their review under the direction of a member of the Contractor's staff.

## 2.5 Development of Items

This section describes the rationale, personnel and procedures related to the item development process.

- 2.5.1 Rationale. The proposer understands that the Task Force wishes to have sufficient items developed to accommodate the

building of three separate test forms in each of the three major skills areas (i.e., mathematics, reading, and writing). The administration time for each skills test will be approximately 45 to 75 minutes. Given these facts and the rule of thumb that it will require examinees approximately 45-60 seconds to respond to an item, one can project the approximate number of items that must be developed.

For the areas of mathematics and reading, all items will be four-option multiple-choice items. Using the rationale described above, it is estimated that for the areas of mathematics and reading a total of approximately 450 items will be needed for the three forms of the tests (approximately 75 items per skill area per test form). To allow for items which may be eliminated after the fieldtest, a 15 percent overage of items will be written, so that the initial pre-fieldtest item pool for mathematics and reading will consist of approximately 520 items.

The Contractor recommends that the principal format for testing writing skills be a production format which elicits writing samples from examinees. In those exceptional cases where a multiple-choice format is deemed appropriate, the Contractor will develop multiple-choice items. In all other cases, however, the Contractor proposes that item stimuli be written to elicit one or more writing samples from each examinee. The number of writing samples elicited from each examinee will depend upon the nature of the domains and skills identified for measurement. If domains and skills specify that competency be demonstrated through particular applications (e.g., letters, forms, essays, etc.), more than one writing sample may be required of each examinee.

Before item development begins, the Contractor will discuss with the DSSS the issues related to providing examinees with a choice of two stimuli, as opposed to requiring all examinees to respond to a single stimulus. Notwithstanding the recommendation of the DSSS with regard to this matter, the Contractor proposes that four (4) item stimuli be developed for each writing sample. Four (4) item stimuli will provide reviewers with the option of recommending revision and/or deletion of an item stimulus.

Until somewhat recently, little attention has been given to issues related to the stimulus for writing. Diederich (1974), Cooper (1975), and Sanders and Littlefield (1975) all have detailed procedures for improving the reliability of ratings of writing samples by carefully constructing the writing task. Several recent studies seem to indicate that the topic may play a significant role in examinee performance [ACT research in progress (cited by Steele, 1979); Mullis 1977; White, 1974]. It is possible to identify several basic topic types. These types of topics vary in effectiveness, and decisions about which type to use should consider the examinee group and the

minimal level of performance required. In any case, competency testing necessitates that consideration be given to the following issues in selecting types of topics:

1. The topic must provide for differentiating between low and medium levels of competency.
2. The topic must be one on which all students could be expected to have something to say.
3. The topic must be clearly set forth so that the student whose minimum writing competency is being examined will not become entangled in trying to interpret the meaning of the topic about which he or she is to write.
4. The topic should be written at a carefully controlled reading level so that a test of writing proficiency does not become distorted by reading difficulties that the student may have.

To alleviate the cost of scoring large volumes of writing samples, the Contractor proposes a two-stage scoring procedure that will allow for identifying those students who obviously possess a high level of competency through an initial screening procedure. This screening will be accomplished through a holistic scoring of all writing samples.

In order that performance results be useful in diagnosing the skills deficiencies of examinees, the Contractor proposes that a second scoring stage be implemented for those examinees found to be non-masters in the stage-one scoring. The second stage procedure will involve an analytical scoring of each non-master's writing sample(s). The Contractor will develop descriptors associated with non-mastery of each skill. The stage-two analytical procedure will provide for reporting to non-masters their specific deficiencies related to each skill identified for measurement in the testing program.

2.5.2 Personnel. The need for a broad level of input in developing tests is sometimes confused with the use of a broad range of people in actual item writing. While it is essential to have broad involvement in the determination of the uses to which test results will be put, in the establishment of skills, and in reviewing items; item writing is best accomplished by highly experienced item writers who also are highly expert in the content area for which items are being written. Hence, the Contractor will use item writers from its cadre of item writing consultants who are highly experienced item writers, highly expert in the skill areas for which they write items, and intimately familiar with university students.

2.5.3 Procedures. The Contractor will conduct a one-half day item writer orientation session with the Contractor's item writers. The orientation session will include the following topics/activities:

- a. General Orientation to the Project;



- b. Delineation/Discussion of Procedures/Responsibilities for Maintaining Test Security;
- c. Discussion of Purposes/Characteristics of the South Carolina Teacher Testing Program;
- d. Introduction to Project Item Specifications;
- e. Item Writing Responsibilities;
- f. Practice Writing Session;
- g. Review/Discussion of Practice Items; and
- h. Logistics for Completing Item Writing Task.

Following the item writer orientation session, all writers will be given the skills and other materials for all items they are to write, and will write their respective items independently. Each item writer will complete approximately one-third of his/her items two weeks after the writing assignments have been made. Subsequent thirds of the items will be completed at two-week intervals. As items are completed they will be subjected to a preliminary review by the Contractor's staff to detect obvious flaws or weaknesses, and preliminary revisions will be made, as needed.

## 2.6 Review of Items

This section addresses the rationale, procedures, personnel and materials to be used in reviewing test items.

- 2.6.1 Rationale. It is ultimately important that test items be reviewed by persons who are intimately familiar with the skills being tested, the purpose of the testing program, the nature of the prospective examinees, and the context in which the testing program will operate. Therefore, it is proposed that the items be reviewed by groups of South Carolina educators.

It is also important that the review process be structured, that it address all of the essential characteristics of good items, and that it be facilitated by the use of validated review procedures and materials. The proposer has considered all of these issues in preparing the item review plan.

- 2.6.2 Procedures. Items will be reviewed in two stages. The first stage review will be conducted by the Contractor. This review will focus on the relationship between the items and the specifications, and the technical adequacy of the items. The second stage review will be conducted by the IRS. This review will focus on content fidelity, geographic and social fidelity, and items bias. The Contractor will use a set of review forms developed, validated, and used extensively by the proposers in numerous test development projects. An example of an item review matrix and associated review forms is presented in Appendix C. The Contractor will plan and direct the second-stage review using its standard review procedures, and will reimburse all reviewers for travel expenses.

After these reviews, the Contractor will revise the items in accord with review comments. When all test items have been reviewed and revised, the Contractor will conduct a readability review of each test item, using the Homan Readability Formula, a formula especially designed to assess the readability of short language constructs such as those typically found in test items. The Homan Formula provides for a sentence-by-sentence analysis of all test item language constructs. The resulting data facilitate meticulous readability adjustments, where such adjustments are indicated. The readability analysis will be conducted by Dr. Susan Homan, developer of the Homan Readability Formula.

## 2.7 Fieldtesting of Items

This section presents the Contractor's rationale and procedures for conducting a fieldtest of the items.

- 2.7.1 Rationale. The RFP calls for the delivery of an "item pool . . sufficiently large to facilitate the generation of at least three equivalent forms of each test." Moreover, in the bidders' conference of May 10, 1980, the question was asked, "Does the Contractor have to deliver three complete equivalent forms?" The answer given was, "Yes." Although the proposer believes that the proper approach would be to develop and deliver an item pool (bank) large enough for three forms, we would argue strongly against the creation of those three forms on the basis of the data that will be available during the conduct of this project. Our objection centers on the requirement that the three forms should be equivalent and that this equivalence should be documented on the basis of the fieldtest results.

Equivalence can be defined on the bases of matching content and/or equivalent performance. For example, if items from two forms, A and B, have been matched to one another in terms of the content they cover, we can say that Form A and Form B have parallel or equivalent content. But that would not guarantee that the performance of a group of examinees would be equivalent on the two forms since it would be possible for Form A to have questions slightly more difficult than those questions on Form B. Evidence about whether or not this difference in test difficulty does exist (and methods for making adjustments if it does) can be obtained only when the two test forms have been administered to the same (or an equivalent) group of examinees and when the tests are in the exact form in which they will be administered. This data requirement means that additional fieldtesting would have to occur where the three forms would be administered in pairs to groups of examinees; yet the legislation timeline does not allow sufficient time to implement such a plan. Furthermore, it is not possible to use data from the fieldtest to document equivalence since one purpose of the fieldtest is to revise items, and the item statistics that would be used in such documentation apply only to the unrevised items. This

condition is true regardless of the kind of item analysis that is used for the fieldtest data.

The approach we are proposing is that the three forms be identified only tentatively such that some modification in Forms 2 and 3 can be made following the actual administration of Form 1. The specific plan for accomplishing the long range maintenance of the testing program (including the administration of Forms 2 and 3 plus all subsequent forms) will be developed as part of project activities. While our forms will be equivalent in terms of parallel content, equivalence in terms of performance standards cannot be determined until the form is actually administered.

The precise equating of test forms administered to applicants for teacher education programs can be accomplished at the time the tests are actually administered. Construction of three forms from the bank of available items can ensure content equivalence only. Reanalysis of items on these three test forms at the time of administration has served in many testing programs to validate fieldtest results and refine item and test difficulty estimates. This procedure allows for the inclusion of items which are changed from the fieldtest analyses. Analysis at this point provides the mechanism through which items can be eliminated from scoring if necessary and equivalent scores still can be obtained for students tested.

In the long term, on each regular administration, a small set of new items would be included for fieldtesting along with the items that are to be included in the scoring. This procedure enables one to renew the item bank and monitor all items that for some reason no longer function properly. A continuous monitoring system of the performance of items from the bank will result in the best chance to achieve comparability on a form-to-form basis for the type of tests to be used. This item bank approach has been used in Georgia's Regents' Testing Program for the past eight years; is currently in use in the Portland, Oregon, schools, and in the State of Virginia; and soon will be implemented in Georgia's statewide student assessment program. This plan establishes a methodology for the ongoing administration and improvement of the program.

The type of fieldtest that is to be conducted as a part of the proposed project serves primarily the purpose of examining the behaviors of items when they are administered to a group of examinees similar to the final population of examinees for whom the tests are intended. Prior to developing the first examination form, the Contractor will fieldtest the items in a simulated final format with a relatively large sample of examinees selected in such a way as to provide a total group representative of South Carolina teacher training institutions. This fieldtesting will allow the Contractor to calculate estimates of



item difficulties, adjust all estimates of item difficulties to a common scale, estimate test reliabilities, identify items requiring further revisions, choose a set of items to compose a test, establish a score scale for the test, and identify procedural difficulties in administering the tests.

Multiple forms of the examination must be developed for fieldtesting, so that each form includes, for each content area, a set of items which are contained in at least one other form, along with a sample of items that are unique to that form. The items that are common to forms allow all item difficulties to be placed on a common scale.

The proposed fieldtest plan assumes that approximately 520 items will be developed for mathematics and reading, that no more than 80 multiple-choice items will be developed for writing, and that four (4) writing stimuli will be developed. Based on these estimates, it is projected that a total of eight (8) fieldtest forms will be developed in order to include the numbers of linking items and unique items required for analyses, while maintaining a reasonable total testing time. The exact number of fieldtest forms required will be determined when the exact numbers of items in each content area are known.

#### 2.7.2 Select Fieldtest Sample

In order to obtain the type of response data necessary for item analyses and to identify potential procedural difficulties, the fieldtest forms must be administered to examinees who are similar to the group for whom the tests are intended. Although the fieldtest sample does not need to be strictly representative in a statistical sense, the sample should be composed of individuals who have had similar experiences in terms of the variables the test is designed to measure. Each of the eight fieldtest forms will be administered to at least 200 fieldtest examinees, who will be juniors enrolled in South Carolina-approved teacher training programs at the time of the fieldtest. Item response data from samples of 200 examinees have been found to provide sufficient precision for purposes such as those proposed for this fieldtest (Brigman, 1976; Forster, 1976).

A sample of institutions will be selected from among the twenty-eight (28) South Carolina-approved teacher training institutions, and each fieldtest form will be administered at each fieldtest institution. The Contractor will obtain, from the dean or director of the teacher training program in each institution, an estimate of the number of juniors expected to be enrolled at that institution at the time of the fieldtest. The sample will be selected such that the total number of juniors enrolled in the selected institutions is at least 1760. This represents a ten percent oversampling to ensure the participation of at least 1600 examinees (200 examinees per fieldtest form).

The sampling approach will yield samples that are representative of the South Carolina-approved teacher training institutions in terms of geographic region, size, type, and racial composition. The institutions will be stratified by geographic region, size, type, and racial composition. Within each stratum, a number of institutions will be randomly selected proportional to the ratio of junior-level students in the stratum to all junior-level students in the state. The total number of institutions to be selected is dependent upon the number of juniors enrolled in the programs. Fieldtest institutions will be selected by the Contractor until the total number of juniors enrolled reaches at least 1760. One alternate institution will be selected from each stratum.

The Contractor will contact the dean or director of the teacher training program of each institution to solicit the institution's cooperation in the fieldtest, and to identify an individual in each institution who will be responsible for fieldtest site arrangements. Any institution which declines to participate will be replaced by the institution selected as the alternate for that stratum.

#### 2.7.3 Make Fieldtest Site Arrangements

The Contractor will contact each participating institution's representative, and will orient each contact person regarding the arrangements necessary to conduct the fieldtest in his/her institution. The contact person will be asked to confirm the number of junior-level students which that institution expects to be enrolled at the time of the fieldtest, and to provide the Contractor with updates on projected enrollment as enrollment projections become more concrete. Prior to printing and packaging materials for test sites, the Contractor expects to have an accurate estimate of the number of examinees who will be participating at each fieldtest site.

The Contractor will discuss with each contact person a set of specifications indicating the necessities for fieldtest site arrangements to accommodate the administration of the fieldtest. It will be the responsibility of each institution participating in the fieldtest to make onsite arrangements and to notify all examinees of the arrangements being made to administer the fieldtest at the institution.

#### 2.7.4 Secure Fieldtest Administrators

The Contractor, in consultation with the TAC, will select a fieldtest administrator for each fieldtest site. Fieldtest administrators will be selected from testing and evaluation departments in South Carolina school districts near the fieldtest institutions. Shortly after securing commitments from all fieldtest administrators, the Contractor will give them a brief overall orientation to the nature of the project and to their general responsibilities in connection with the project.

#### 2.7.5 Secure Fieldtest Proctors

Each fieldtest administrator will be asked to select a group of proctors to work with him or her. The administrators will be asked to select only individuals who have prior experience in group test administration and who have exhibited a high level of professionalism through time in their professional responsibilities. The proctors will be practicing school teachers or counselors in those districts from which the fieldtest administrators are selected. One proctor will be used for every 30 examinees expected to participate in the fieldtest.

The Contractor will make arrangements directly with the school districts in which the proctors are employed to have the proctors released for the fieldtest administration. The Contractor will make arrangements to reimburse each district directly the cost of hiring substitutes for its teachers who serve as proctors for the fieldtest.

#### 2.7.6 Prepare Fieldtest Materials

It is estimated that the item pool will consist of a maximum of 600 multiple-choice items for mathematics, reading, and writing, and approximately four (4) writing stimuli. The Contractor will use all available information and/or professional judgment to determine estimates of the relative difficulty of items in the pool. This information will be used in identifying the desired sets of overlapping items, and in assigning items to the fieldtest forms.

The Contractor will format each of the fieldtest forms into two booklets. One booklet will contain all multiple-choice items in mathematics, reading, and writing, stimuli for eliciting writing samples, and instructions for all items. A separate, lined composition booklet will be provided for the writing samples. The Contractor will print a sufficient number of booklets to conduct the fieldtest.

The Contractor will develop a fieldtest administrators' manual to be used in administering the fieldtests. The manual will be clearly and efficiently organized to facilitate use by fieldtest administrators. The manual will be developed in such a way that one manual will be appropriate for the administration of all fieldtest forms. The manual will include an introduction to the test, general instructions, specific instructions for administering, gridding procedures, and necessary identification codes. The manual also will include instructions for security, storage and management of all materials. Sufficient copies will be printed to accommodate the fieldtest administrations.

A fieldtest answer sheet will be formatted to accommodate responses to the fieldtest forms, and also to accommodate the



collection of information necessary when operational administrations begin. The Contractor will arrange for the preparation of proofs by INTRAN Corporation. These proofs will be reviewed by the Contractor. Upon approval, sufficient answer sheets will be printed to accommodate the fieldtest administrations.

The Contractor will prepare two fieldtest comment sheets to be completed during the fieldtest. One form will be completed by test administrators and one form by examinees. These forms will elicit reactions to matters such as: clarity of procedures, clarity of general test directions, clarity of specific test directions, clarity of test format, clarity of item format, clarity of answer sheet format, and reactions to any other matters related to difficulties that the examinees may have encountered in completing the fieldtest exam. The comment sheet for administrators will elicit information from fieldtest administrators with regard to matters such as: clarity of overall procedures, clarity of overall test directions, difficulties encountered in the fieldtest situation, and the minimum and maximum time required by examinees to complete the fieldtest exam.

#### 2.7.7 Train Fieldtest Administrators

When the formats of the fieldtest materials have been established, the Contractor will develop and conduct a one-day training session for fieldtest administrators. The topics in the training session will include:

1. Background of the examination;
2. Test security;
3. Overview of fieldtest procedures;
4. Training of proctors;
5. Receipt of test materials;
6. Administration procedures;
7. Completion of comment sheets forms; and
8. Return of test materials.

#### 2.7.8 Package and Deliver Fieldtest Materials

The fieldtest forms will be spiraled, so that approximately equal numbers of all forms will be administered at each fieldtest site. For each fieldtest site, a sufficient number of fieldtest booklets to accommodate the number of examinees expected will be counted, along with a ten percent overage of each test form, to accommodate matters such as a blank page in a test booklet. A unique number in series will be stamped on each of the fieldtest booklets, using a unique series for each fieldtest site.

The test booklets for each fieldtest site will be packaged with an adequate supply of answer sheets, comment sheets, and an administration manual. The Contractor will verify,

according to a checklist for each site, that all materials for that site have been packaged appropriately, and that all assigned serial numbers are included. Each package also will contain a checklist of all materials included in the package.

Each of the fieldtest materials packets will be shipped to each of the respective fieldtest administrators three days prior to the scheduled fieldtest date. The Contractor will deliver the fieldtest packages via Purolator Courier Service, using their guaranteed one-day delivery plan. Fieldtest administrators will be instructed to call the Contractor upon receipt of the test materials package.

Upon receipt of the test materials package, each fieldtest administrator will be instructed to review the enclosed materials, and verify the materials and all assigned serial numbers according to the enclosed materials checklist. Should any of the fieldtest packages not be delivered two days prior to the scheduled fieldtest, or should any of the delivered packages have materials omitted, special arrangements will be made to have the test package delivered to the administrator at that fieldtest site.

#### 2.7.9 Conduct Fieldtest

Each fieldtest form will be administered at each fieldtest institution to avoid the potential of a test form-fieldtest institution interaction bias. At the time of the fieldtest administration, fieldtest administrators will orient fieldtest proctors forty-five minutes prior to the scheduled beginning of the exam. Each test administrator will be responsible for distribution of materials, overall supervision of the fieldtest, and receipt of all distributed testing materials.

The test will be administered in one session without breaks. The test will not be a timed test, and each examinee should have the opportunity to complete all items. Actual testing time is expected to be approximately two hours. Before any examinee is excused, the fieldtest administrator must ensure that all materials have been collected from the examinee.

At several fieldtest sites a member of the Contractor's staff will observe the fieldtest administration to note any potential difficulties not assessed by the comment sheets.

#### 2.7.10 Return Fieldtest Materials

After checking for the completeness of all materials against the materials checklist, the fieldtest administrator will package all materials according to specifications provided by the Contractor. These materials will be shipped by the fieldtest administrators directly to the Contractor. The Contractor will verify, according to the checklist for each site,

that all materials for that site have been returned, and that all assigned serial numbers are included.

When the fieldtest administrator has completed all responsibilities related to the fieldtest, each administrator will complete the Administrator Fieldtest Comment Sheet. Each administrator will mail the completed form directly to the Contractor.

## 2.8 Item Analyses and Revisions

This section addresses the rationale and procedures associated with analyzing fieldtest results and making revisions to the set of test items indicated by fieldtest results.

2.8.1 Rationale. To complete tasks related to item analysis from pilot test results, we propose using methods based upon the Rasch model. Currently, the Rasch model is being used in numerous test development activities for a variety of content areas. For example, Doherty (1978) has reported the extensive use of the model to calibrate items used in a variety of domain-referenced tests. Williams (1979) reports successful application of the model by the Virginia Department of Education in the statewide Basic Learning Skills and Graduation Competencies testing program. Rentz (1979) reports using the model for calibrating minimum competency reading tests in the Regents' Testing Program of the University System of Georgia, and Schumacher (1979) has discussed successfully applying the Rasch model to examinations in the field of medicine. In fact, the Rasch model is currently in use in South Carolina by the SDE in the development of the new statewide assessment tests.

The Rasch model calibration process affords the test developer several advantages not provided by other methods of item analysis such as item difficulty (p-value) estimation. Two advantages may be particularly useful in this project. First, the Rasch model item calibration process results in item parameter estimates independent of the specific fieldtest sample used to generate estimates. This "sample-free" property of item calibration provides a means for controlling the effects of sample differences and frees item analysis from strict random selection requirements.

Another major advantage of a Rasch model calibration process is the "item-free" measurement property of the Rasch model. This property means that person measurement from the Rasch model calibrated items is independent of the particular set of items used, as long as those items are part of a commonly-calibrated item pool. A commonly-calibrated item pool results from adjusting all item estimates for a particular test to a common scale, a result of the Rasch model calibration process. This "item-free" property of the Rasch model enables



the model to provide a powerful means for ensuring reliable classification of examinees across various forms of a test. This "item-free" property enables a more consistent and effective process for generating equivalent forms than matching item difficulties and will be a useful property of item analysis results for future test form development.

- 2.8.2 Procedures. Item response data from the administration of each of the fieldtest forms will be scored dichotomously and analyzed using a standard Rasch model analysis program. This program, developed by Dr. R. Robert Rentz, produces estimates of Rasch model parameters and evaluates the fit of the items to the model, using a variety of procedures, thereby producing several indices of item fit.

In addition to Rasch analysis, traditional analyses will be performed for each of the eight fieldtest forms. The results of these analyses will include item-total correlation coefficients, item p-values (proportion answering an item correctly), number selecting each response option, and score distributions.

Upon completion of fieldtest data analysis, items for which data suggest that good item parameter estimates have been obtained will be included in a bank of items. Good items are those for which observed parameter values fit those values predicted by the Rasch model. Items for which data suggest that poor parameter estimates were obtained in fieldtesting will be examined for obvious content, language, or format errors, revised where indicated, and then rescheduled for some future fieldtesting.

## 2.9 Reliability and Validity

The determination of reliability of the math and reading tests based only on fieldtest results suffers from the same problems discussed with regard to establishing equivalence of forms. That is, calculations based on the fieldtest data are accurate only to the extent that: 1) The sample for the fieldtest represents the final sample to which tests will be administered; and 2) The items remain unchanged, such that the item statistics (estimated during the fieldtest) are dependable. The Contractor will estimate reliability on the full-length final test forms using the item analysis data from the fieldtest, following standard procedures; but, we caution the Task Force that, while these estimates will be approximately correct, the best estimate of reliability can be obtained easily at the time of actual test administration.

The estimation of reliability for the writing test is more complicated than that for the reading and math tests. This complication is due to the fact that scoring errors (rather unreliability) constitute a major source of unreliability in the writing scores. Fortunately, the data from the fieldtest for writing provide a good basis for reliability estimation, and for decisions that might be

required for modifying the testing and scoring process. Here we intend to use generalizability theory to separate the various important sources of error impacting the reliability of the writing scores. The advantage of this approach is that the separate components producing the larger sources of error can be attended to separately.

With regard to validity, the primary concern is the test content. The test should measure the "right" content. This content validity determination is addressed throughout the conduct of the project. We can ensure a valid test by employing the process of test development described in this proposal. The strength of content validity evidence rests on the rational process of defining appropriate content and carefully matching test content to that content previously defined.

A secondary aspect of validity that is most important in this project is the validity of the cutoff scores for each test. This important aspect of validity is discussed fully in Section 2.10 on Standard Setting.

## 2.10 Standard Setting

This section addresses the rationale and procedures related to establishing defensible minimum performance standards for the tests which are developed.

2.10.1 Rationale. As more and more states move toward competency-based assessment programs, several factors become evident. First, most models now being implemented or planned incorporate the concept of "minimal" acceptable performance as opposed to the concept of total mastery or best performance. Second, a number of recent court decisions relating to criterion validity have direct implications for states such as South Carolina that are about to embark on such a model. Those court decisions which have ruled against certifying agencies have done so on the basis of the lack of validity of the instruments (content validity) and/or the lack of validity of cutoff score used in the pass-fail decision-making process.<sup>2</sup> Specifically, the courts have been concerned about evidence which related a given cutoff score to a specific level of performance which can be labeled "minimally acceptable."

Validity is an all-encompassing term which relates to many aspects of test development. However, it is of primary concern when dealing with cutoff score justification. Two points must be emphasized. First, unlike norm-referenced tests, criterion-referenced tests (CRT's) must provide information which is interpretable with regard to a performance standard. Attention is directed toward an examinee's performance relative to that standard rather than toward evaluation in terms of group performance. Second, it is not the intent of the test user to discriminate between applicants as to degree of proficiency. The intent is to discriminate only between those who have reached a required (minimal) level of performance

and those who have not. It is important to understand that the decision being made is on the level of the individual, and as such, the status of other individuals does not enter into the decision.

Given this degree of importance associated with cutoff scores, one would think that the state of the art is well documented and that research yielding specific models and guidelines to follow is prolific. Unfortunately, most of the work done to date relates to suggestions concerning various methods as opposed to the acceptance and validation of specific models. There still exist many issues in standard setting and many models which one may adopt.

The decision to adopt one model over another usually is made in relation to a number of variables. The primary concern should center on the purpose of the exam. It is most likely that a different model would be chosen depending on whether the purpose was (1) classroom testing, (2) basic skills testing leading to promotion, or (3) professional licensing or certification testing. Within these frameworks, resources including money, materials, clock time, personnel time and expertise must also be considered.

The proposer has devoted a great deal of time to investigating the relative merits of the various standard-setting models, the issues associated with each, and the factors which make one model as opposed to another model more appropriate for a specific examination. In addition, the proposer has put the results of these investigations into use on a number of occasions with various testing programs. These experiences have further helped us define theoretical issues as well as procedural and logistical concerns. Based on these experiences, we are proposing a process designed to yield data to assist the Task Force in making a decision regarding minimum standards. The process is valid and legally defensible.

#### 2.10.2 Overview of Available Methods for Standard Setting

Numerous researchers (Hambleton & Eignor, 1979; Hambleton et al., 1978; Jaeger, 1976; Meskauskas, 1976; Millman, 1973. Shepard, 1976.) have catalogued many of the available methods for standard setting. For the most part, these methods differ in terms of the "source of data" used in determining the standard. There exist methods based on (1) item content, (2) guessing and item sampling, (3) empirical data from mastery and non-mastery groups, (4) decision-theoretic procedures, (5) external criterion measures, and (6) educational consequences. However, all methods are, to some degree, "arbitrary." This is not to say that standards are set at random and without reason. On the contrary, the process employs a judgmental operation which is based on data and/or experiences. Such a process is not new in education. Teachers make arbitrary decisions about what to teach in their



courses, how to use materials, and at what pace to teach. In business and industry we witness the setting of arbitrary standards such as health standards and highway safety standards. In each of these examples, arbitrary is used in a positive mode reflective of a "... genuine attempt to do a good job in deciding what kinds of standards we ought to employ. That they are judgmental is inescapable. But to malign all judgmental operations as capricious is absurd" (Popham, 1978, p. 168).

As mentioned earlier, there are numerous ways to categorize the various standard-setting methods. However, the categories used most often are "judgmental," "empirical," and "combination." In judgmental methods, data are collected from judges or judgments are made about the presence of variables that would affect the placement of a standard. Empirical methods require the collection of examinee response data to aid in the standard-setting process. The combination method incorporates judgmental and empirical data into the standard-setting process.

In addition to the above categories, a further classification can be made in terms of "item content" versus "total score analyses." These two categories refer to the level on which data is collected for the standard-setting process as opposed to the method of collecting data. The item content process involves the inspection of each individual item. The total score analysis process involves the evaluation of data derived from groups of students based on total test data as opposed to individual item data. For the most part, standard-setting procedures which employ an item content process are usually classified as judgmental. Those standard-setting procedures which employ total score analysis data are usually classified as empirical.

Procedures which collect data on an item basis and are judgmental in nature are oriented toward addressing the question of "how the minimally competent person would perform on the item." In other words, judges are asked to assess how or to what degree an individual who could be described as minimally competent would perform on each item. The data obtained from the judges on an item-by-item basis then is used to establish a standard in terms of number of items correct. At the present time, we are aware of at least six procedures based on item content as described above. The primary difference between them is the treatment of the data and the structure provided the judges.<sup>3</sup>

Procedures which collect data via total score analysis and are empirical in nature are based on determining a score which discriminates between groups of students on a defined variable. Such methods usually involve selecting a cutting score using data from two samples of students, one of which

has been instructed on the materials, and the other uninstructed. Other total score procedures which could be classified as combination methods involve the selection of borderline students (between acceptable and unacceptable) through a judgmental process, and the identification of the median test score for the group as the standard. A variation of this is to use contrasting groups (definite masters and non-masters). The score which best discriminates between the two groups would be the standard.

#### 2.10.3 Proposed Model for Standard Setting

In this section, procedures are outlined for developing data to assist the Task Force in making a decision regarding minimum standards. The model recommended is based on a number of preliminary considerations. These considerations consist of an analysis of the decision-making context which includes probable consequences of the decisions to be made, the number of people directly and indirectly affected by the decisions, and the duration of the consequences.

In developing the proposed model, we have adopted a position consistent with those of a number of researchers (e.g., Hambleton, 1980; Jaeger, 1978; Linn, 1978; Shepard, 1976) who hold that performance data should be considered along with test content to inform the setting of standards. While from an idealistic point of view it would be desirable to set standards with reference only to the content of a domain, in reality the degree of skill in test construction required for a pure-content approach probably is beyond human attainment. "In order to avoid unpleasant shocks it would seem good practice to examine test performance data; the other benefit of so doing is that feedback is received on our content-based judgments and may thus refine our skills" (Hambleton, 1980, p. 64). The model being proposed is based on variations of the work of Nedelsky (1954), Angoff (1971) and Jaeger (1978). In general terms, it is an iterative procedure for soliciting item-by-item judgments from judges. Information fed back to the judges at each iteration includes information pertaining to performance on each test item in a pilot (fieldtest) administration and information summarizing the group results yielded by the judges in the group.

Specifically, each judge will be asked to state the probability that the "minimally acceptable person" would answer each item correctly. In effect, the judges would think of a number of minimally acceptable persons instead of only one such person, and estimate the proportion of minimally acceptable persons who would answer each item correctly. These probabilities will be averaged over judges by item and will be provided back to the judges along with actual item difficulties (from the fieldtest) and a distribution of responses made by the judges in the group. At this point, judges will be asked to evaluate their initial estimates based on comparisons which

are now available. Specific guidelines will be provided to help judges evaluate their responses and discussion between judges will be encouraged. Judges will be instructed to repeat the process by again estimating the proportion of minimally acceptable persons who would answer each item correctly. The data again will be averaged over judges by item and provided back to the judges. The process will be repeated until the results show no change or very little change from the previous iteration, thus indicating that each judge has reached a final decision. At this point, the sum of these probabilities, or proportions, will represent a "tentative" minimally acceptable score reported as number of items or percentage of items correct. We refer to it as tentative because this score must now be evaluated in terms of the possible errors which may occur.

The minimum percentage (score) reflects the degree of mastery judged sufficient for the test. Implicit in the procedure is the fact that the pass-fail decision is based on a sample of observations (test items) and, as a result, includes some error in the decision process. This error can lead to incorrectly advancing or retaining an examinee. It is unlikely that such types of error will occur for examinees who obtain scores far below or far above the criterion score. However, it is likely that such errors will occur for those examinees obtaining scores close to the criterion score. At this point the Task Force will be faced with two alternatives. The Task Force may choose to accept the established criterion score which would imply acceptance of the possibility of making a decision error within defined probability limits. As an alternative, the Task Force may choose to adjust the criterion score in such a manner as to decrease the probability of making a decision error in a specific direction. However, in so doing, the probability of making an error in the opposite direction would be increased. If we decrease the probability of passing non-minimally competent examinees by raising the criterion, we are also increasing the probability of failing minimally competent examinees. The Task Force will be provided with data, based on the fieldtest, to assist them in this decision. The primary purpose of the data provided is to establish the consequences associated with the various alternatives. These consequences will be presented in terms of projected number of students passing and probabilities associated with each type of error.

There are a number of points that should be mentioned at this time in order to provide a better understanding of the process.

1. The process will be carried out separately for each examination.



2. Based on our initial estimates of test length, we anticipate a two-day workshop to complete the process, per content area.
3. The process and resulting standard is developed for one of the three test forms. Through the equating and form generation procedures described in section 2.7.1, the standard is adopted to additional forms in such a manner that minimum performance standards are equal (equated) from form to form.
4. Various analyses will be performed to evaluate the consistency of results and process.

## 2.11 Development of an Item Storage, Updating and Retrieval System

We propose developing procedures for storing and retrieving all test items by incorporating these items into pools or banks of items for each test. These procedures will include procedures for storing and retrieving camera-ready copy of items as well as historical data on item use and item calibrating results. (Such information will be updated whenever an item is used in future test forms.) At present, we propose the development of two files: 1) an item statistics file containing historical data on item use and calibration, and 2) an item image file containing camera-ready images of each item.

### 2.11.1 Item Statistics File

This file will contain a record of an item's use on prior forms and item calibration statistics associated with each use. Additionally, each item will be labeled according to content and format characteristics. One item statistics file will be established for each of the tests called for in the RFP. A good example of an item statistics file is provided by the University System of Georgia Basic Skills Examination reading test file. Dr. Robert Rentz has been directly responsible for developing this file. This reading item file contains a list of each item identified by a unique code indicating basic item characteristics. This label is then followed by item calibration statistics. Items are arranged in the list by content category and item difficulty. The Basic Skills Examination files which have been developed were generated using SPSS (Statistical Package for the Social Sciences) data management procedures. The powerful variable labeling and variable generation features of the SPSS statistical package have greatly enhanced the use of item data both with new form construction tasks and with item bank monitoring and evaluation efforts. Creation of item statistics files by means of SPSS also offers the capability for generating a range of descriptive reports on various characteristics of items in the file. (Such reports may be particularly useful for bank development planning tasks beyond the scope of the present RFP.)

#### 2.11.2 Item Image File

This second file will contain camera-ready copy of each item. An IBM Office System 6/442 word processor will be used to store, retrieve, edit and format camera-ready copy of all items and test forms. This system allows for a variety of print faces and item/test formats, produced in justified or non-justified columns and pages.

Images will be filed according to content objectives and in sequence by the same set of unique test identification numbers associated with items in the item statistics file. Thus item statistics and item images can be cross-referenced easily. Camera-ready copy of each item for inclusion in this item image file would be produced as part of fieldtest form preparation. Thus, the item image file would be updated as items are field-tested. Copies of each item image used in fieldtesting would be retained in this file to be used as a master copy of the item in subsequent test form production. Items can be edited and reproduced quickly and efficiently; item arrangement and test format can be altered readily.

#### 2.12 Development of a Plan for Maintaining the Testing Program

This section addresses the rationale and procedures for developing a plan to facilitate the orderly maintenance of the testing program once tests have been developed.

2.12.1 Rationale. While the proposer fully realizes that there is no commitment on the part of South Carolina to award the contractor subsequent contracts to administer and maintain the testing program, the proposer does feel a strong responsibility to outline a maintenance program during the initial contract year. It has been our experience that in many states, initial attempts at developing testing programs consisted of a piecemeal approach. That is, specific needs were identified and test development activities were initiated to meet these needs. Activities were reactive as opposed to proactive. Very little, if any, consideration was given to aspects of testing beyond the immediate, specific need. "In essence, states concentrated on building tests for specific purposes as opposed to building testing programs for changing purposes. In many cases, this lack of planning has created a totally new group of problems during the subsequent years of administration" (Bernknopf, 1980, p.2). To avoid this possibility in South Carolina, the Contractor will produce as part of the current contract an outline for a management system designed to maintain the testing program from year to year. It should be noted that many of the aspects of this system will be addressed and, to some degree, implemented during the current contract. Establishing a data bank, designing a scoring system and a reporting system are examples. Other areas of concern such as administration procedures, support materials,

distribution and collection procedures, etc., will be designed for implementation in subsequent years. The following sections will outline the areas to be addressed in developing a management plan for maintaining the testing program.

#### 2.12.2 Areas to be Addressed in Maintaining the Program

Establishing Procedures. The Contractor will recommend procedures to ensure uniform testing and reporting conditions. These procedures will govern five aspects of the program: 1) Administration, 2) Scoring, 3) Reporting, 4) Security, and 5) Updating the item pool.

Developing Test Administrators' Manuals. The Contractor will develop a draft model test administrators' manual in addition to the fieldtest administrators' manual. The former will be designed to govern subsequent administrators. Both manuals will contain the following sections:

- A. Introduction
  - . planning for testing
  - . distribution of test materials
  - . materials needed
  - . preparation of transmittal forms
  - . room and seating arrangements
- B. General Instructions
  - . school codes
  - . student preparation
  - . scheduling the administrations
  - . timing, if applicable
- C. Administration Directions
  - . name grid marking
  - . demographic information recording
  - . reading test directions
  - . mathematics test directions
  - . writing test directions
- D. Compiling and Assembling Materials
  - . instructions for test administrators

Test Distribution. The Contractor will establish procedures for maintaining quality control during the distribution of testing materials to the test sites which will ensure that an accurate and complete accounting of all materials is maintained.

Establishing and Maintaining a Data Bank. Through the process of providing report forms to candidates, colleges and universities, and state department personnel, the development of a data bank is almost automatic. During the contract year, the Contractor will propose, in detail, procedures for the development of a data bank and tracking system that will provide for longitudinal assessment of progress in reading,



mathematics and writing. Furthermore, the design of the data bank will facilitate the incorporation of data obtained from the certification exams as well as the performance assessment.

Scoring System. The proposer, through its sub-contractor, INTRAN Corporation, has a great deal of capability and experience in the application of optical scanning technology which makes possible the transmission of information recorded on paper directly into a computer readable format, without intermediate data handling. During the contract year, PDE and INTRAN will produce documents outlining procedures for 1) processing of test data, 2) analysis of test data, and 3) reporting of test data. Addressing these essential elements of a scoring system, PDE and INTRAN will focus on procedures for strict quality control and the production of cost effective information.

Ongoing Item Generation. Other sections of this proposal detail the process to be employed in generating an initial usable item bank. As per the requirements of the RFP, this item bank will be capable of producing at least three alternative forms of each test. Procedures employed to generate this item bank during the "start-up" year are somewhat different from those which may be employed to maintain the bank during an ongoing program. During the contract year, the Contractor will produce a tentative document describing procedures for maintaining the item bank. This document will address: 1) item writing; 2) item review; 3) fieldtesting; 4) fieldtesting analysis; 5) composing of new test forms; and 6) updating the item bank.

Receipt Control. During the current contract year, the Contractor will develop an outline suggesting procedures for receipt control. It is essential to the successful administration of a testing program that appropriate and specific check-in procedures are produced and utilized. Such a step-by-step plan is the only way to ensure a complete accounting for all answer sheets and test booklets received at the storing facility.

Monitoring Test Administration. During the current contract year, the Contractor will develop a plan designed to monitor and facilitate test administration. The plan will serve two purposes: 1) to provide necessary training to appropriate personnel involved in ongoing administration; and 2) to obtain feedback concerning appropriateness of procedures used. Objective one will be met by developing a training format to cover such topics as:

- . general principles of test administration
- . specific testing requirements
- . materials distribution procedures
- . materials collection procedures
- . review of administration manual

- . review of test coordinators' responsibilities
- . review of test administrators' responsibilities

While a strong training program reduces the need for actual on-site monitoring and supervision, the proposer intends to address procedures for supervision at some administrations. The primary purpose of on-site visits is to collect data as to the success of:

- . security procedures
- . distribution and collection procedures
- . general test administration

It is assumed that through a process of continuous feedback, procedures can be revised to make the program more and more effluent. However, the process of receiving this feedback must be put into place during the initial year of administration.

#### 2.13 Security and Confidentiality

The proposer has completed a number of contracted projects which included the development and fieldtesting of secure test materials, and protecting the confidentiality of information. Consequently, the proposer is acutely aware of the necessity of implementing procedures to assure test security and to protect the identity of participating institutions and individuals.

The Contractor's test security and confidentiality plan will include the following elements:

1. No individual other than the project personnel specified in this proposal will have access to any of the item specifications or items.
2. All of the individuals who will be working on the proposed project also have worked on other secure test development projects. All project personnel will be reoriented at the beginning of the project with regard to the need for test security and all specific test security procedures. All individuals who will have access to the examination materials for any reason whatsoever will be required to sign a compliance form indicating that they will not release or use the specifications or items in any unauthorized manner.
3. Examination materials will be kept in a limited access, specially-keyed designated secure storage area in the PDE suite of offices. A checkout system will be instituted for removing examination

items from the secure storage area. All developmental work on the examination items and specifications will take place only under the direct supervision of the Contractor. The Project Secretary will have access to the items only under supervision.

4. All copies of exam materials will be serially numbered by the Contractor, and any distribution of the specifications and/or items will be accompanied by a packaging ticket which details the materials and their serial numbers. Each person involved in the distribution and collection processes will be responsible for assuring that all numbered test materials are present at each point in the distribution and collection process.
5. The Contractor will obtain a signed security document from each individual who will have access to the exam materials. The security document will contain an agreement that the individuals will not reveal in any manner, to other individuals, the item specifications, exam items, paraphrases of the exam items, or close approximations of the exam items to which they have access.
6. All materials produced during the developmental stages of the project will be saved, including drafts, mistyped pages, notes, and any other documented materials which reflect the nature or content of an examination item specification or item. These materials will be stored in the secure storage area.
7. At or near the termination of the project, the Contractor will, at the Task Force's discretion, either destroy all remaining materials or ship all developmental and operational test materials to the Task Force.
8. The Contractor will keep a list of all people who saw any of the item specifications, test items, or developmental materials, along with copies of all compliance forms and security document forms, to be delivered to the Task Force at the termination of the project.
9. The Contractor will minimize the likelihood of any test security leak by limiting access to the test material for typing purposes to one project secretary. Internal copies of developmental materials will be reproduced by the Contractor with its reproduction facilities located in its suite



of offices. The proposed printing sub-contractor has experience in maintaining security procedures for secure test materials. Nonetheless, at the beginning of the project, the Contractor will meet with the president of the printing firm to discuss specific test security procedures. The agreement between the Contractor and the printer will be documented in the form of a legal contract obliging the printer to follow all specified test security procedures.

10. The Contractor will obtain, from each institution participating in the fieldtest, a list of the names of all students to be admitted to the fieldtest session. The names of examinees will be used only for purposes of admission to the fieldtest sessions, to verify that only authorized individuals are present during the testing session. All fieldtest participants will be assured that the identity of all institutions and individuals will be kept in strict confidence by the Contractor, that data will be aggregated across examinees and institutions, and that all personally identifiable data on individuals or institutions will be destroyed by the Contractor.

#### 2.14 Project Reporting and Documentation

The Contractor will meet periodically with the Task Force or contract officer, will deliver to the Task Force a number of documents describing the procedures and results of project activities, and will deliver to the Task Force monthly reports of project progress and a final project report. This section describes the proposed project reports and deliverables, and presents the timeline associated with them. Although the exact dates of the milestone review meetings will be negotiated contingent upon the contracted schedule of project activities, the estimated target dates for the review meetings are presented here, with a brief description of the activities and deliverables for each.

The Contractor will submit a one to two page written report to the Task Force once each month during the life of the project to provide updating on the progress of the project. The Contractor will meet with the Task Force by October 1, 1980, to discuss project plans and scheduling. By October 1, 1980, the Contractor will deliver to the Task Force a document describing the test domains and the validation procedures in South Carolina. On or around October 15, 1980, the Contractor will participate in a milestone review meeting with the Task Force or contract officer, and will deliver to the Task Force a brief written description of project activities to date. By January 15, 1981, the Contractor will deliver to the Task Force a document describing test item development, review and validation procedures. On or around January 30, 1981, the Contractor will participate in a second milestone review meeting with the Task Force or contract officer, and will deliver to the Task Force a brief written description of project activities conducted since the first milestone review meeting. By March 15, 1981, the Contractor will deliver to the Task Force a document describing pilot test procedures and general findings. By May 15, 1981, the Contractor will deliver to the Task Force a draft of each of three test forms for each of the three basic skills areas, a

document containing recommendations regarding minimum performance standards and validation findings, and a technical manual draft for each of the basic skills tests. On or around May 30, 1981, the Contractor will participate in a third milestone review meeting with the Task Force or contract officer, and will report on project progress since the second milestone review meeting. By June 15, 1981, the Contractor will deliver to the Task Force a document proposing procedures for administration, scoring and a score reporting system for the basic skills tests. By June 30, 1981, the Contractor will deliver to the Task Force three basic skills test forms and the proposed alternate forms for each technical manual for each of the three basic skills test forms, and a final project report describing all project activities with appropriate documentation.

FIGURE 2.1  
PROPOSED COMMITTEES/ACTIVITIES

COLLEGE DEANS & SDE REPRESENTATIVE

- . Review and react to project goals
- . Review and react to planned project procedures
- . Make suggestions for expediting project activities
- . Appoint members of TAC

TECHNICAL ADVISORY COMMITTEE - TAC

- . Serves in advisory capacity throughout life of project
- . Is made up of representatives from each institution (appointed by college deans) and a representative of the SDE
- . Is divided into three subcommittees with specific responsibilities related to various phases of the project
- . Has equal distribution of expertise in the three basic skills content areas

USAGE PLAN SUBCOMMITTEE - UPS

- . Advises Contractor on developing test results usage plan

DOMAINS SKILLS & SPECIFICATIONS SUBCOMMITTEE - DSSS

- . Advises Contractor in identifying skills domains and skills statements and in developing item specifications
- . Includes at least one specialist in each of the three basic skills content areas and six school-based principals (3 elementary and 3 secondary), and one representative of the SDE

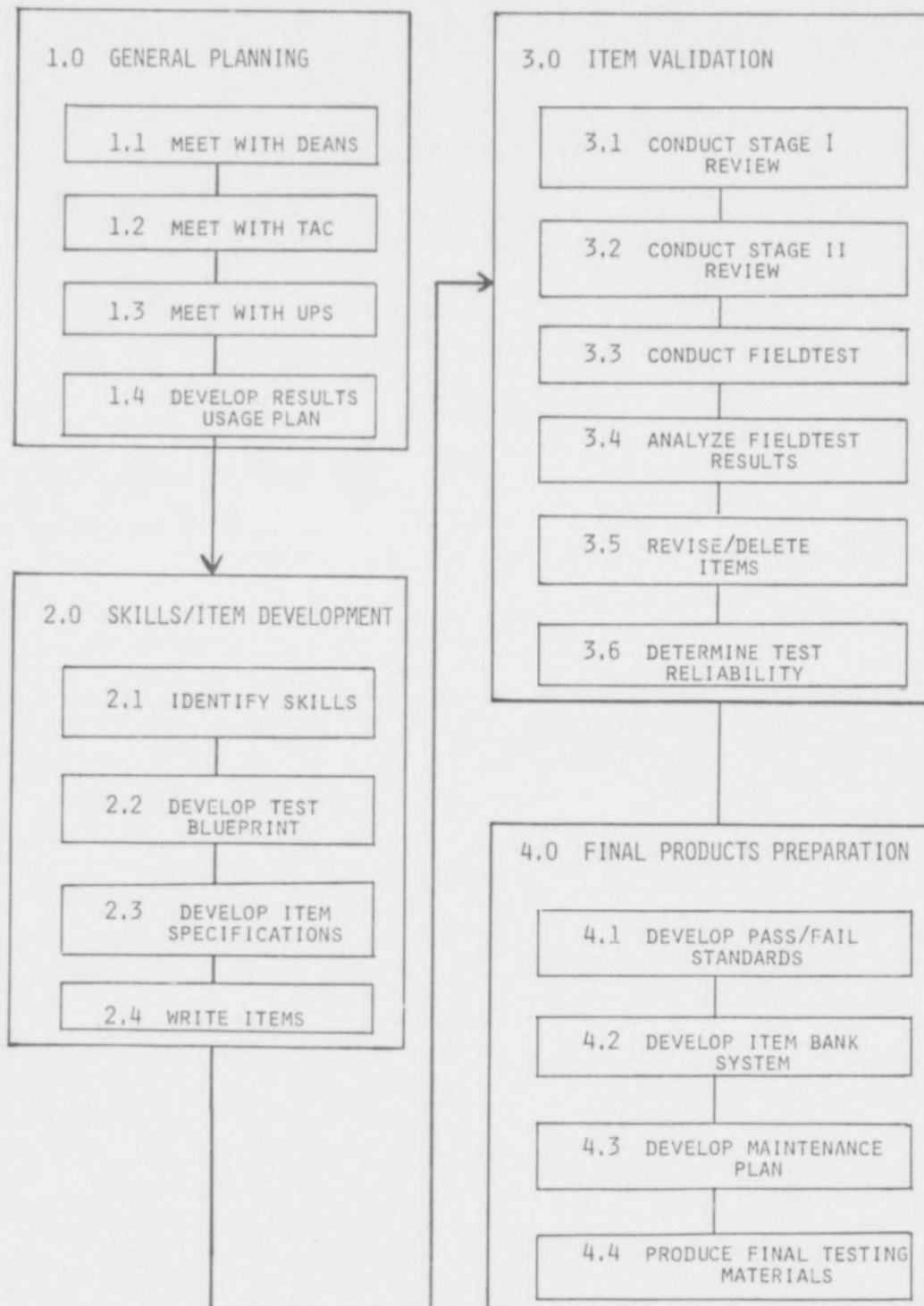
ITEM REVIEW SUBCOMMITTEE - IRS

- . Assists Contractor in reviewing test items
- . Includes at least one specialist in each of the three basic skills content areas and six school-based principals (3 elementary and 3 secondary), and one representative of the SDE



FIGURE 2.2

FLOW CHART OF MAJOR PROJECT ACTIVITIES



### 3.0 MANAGEMENT PLAN

This section presents discussions of project personnel requirements, job descriptions, and a time/task analysis. The qualifications of proposed project personnel are described in Section 4.0, and vitae of key project personnel are provided in Appendix D.

#### 3.1 Personnel Requirements

The Project Director will be Dr. Tom D. Freijo, PDE's President. Mrs. Kathryn K. Freijo, PDE's Vice President for Program Development, will be the Skills/Item Development Coordinator. Mrs. JoEllen V. Perez, PDE's Vice President for Administration, will be the Fieldtest and Formatting Coordinator. Dr. Stanley Bernknopf will be a long-term consultant and will function as the Program Planning Specialist. Another long-term consultant will be Dr. R. Robert Rentz, who will function as the Measurement and Analysis Specialist.

A detailing of total project personnel requirements is as follows:

- a. Project Director, 34 days;
- b. Skills/Item Development Coordinator, 44 days;
- c. Fieldtest and Formatting Coordinator, 53 days;
- d. Program Planning Specialist, 39 days;
- e. Measurement and Analysis Specialist, 32 days;
- f. Item Specification Writers, as follow:  
Mathematics, 4 days;  
Reading, 4 days;  
Writing, 4 days;
- g. Item Writers, as follow:  
Mathematics, 15 days;  
Reading, 15 days;  
Writing, 15 days;
- h. Project Secretary, 50% for 12 months;
- i. Graphics Artist, 2 days;
- j. Layout Artist, 2 days;
- k. Writing sample scorers (6), 1 day each;
- l. Readability Expert, 4 days.

#### 3.2 Job Descriptions

Job descriptions of central project personnel are as follows:

Project Director (T. Freijo). The Project Director will be responsible for the following activities:

- a. Overall planning, operation, and control (12);
- b. Arranging for meetings with Deans and TAC (1);

- c. Attending meetings (3) with Deans and TAC (6);
- d. Reviewing item specifications (2);
- e. Reviewing items (5);
- f. Reviewing all project documents (4); and
- g. Reporting to the Task Force (4).

Skills/Item Development Coordinator (K. Freijo). The Skills/Item Development Coordinator will be responsible for the following activities:

- a. Making presentation at Dean's meeting (2);
- b. Meeting with UPS re: usage plan(s) (2);
- c. Developing test results usage plan(s) (3);
- d. Meeting with DSSS re: skill domains (2);
- e. Documenting tentative skill domains (2);
- f. Coordinating validation of skills domains (2);
- g. Meeting with DSSS re: item specifications (2);
- h. Coordinating item specifications development (3);
- i. Coordinating validation of item specifications (2);
- j. Coordinating item writing (5);
- k. Coordinating item reviews/revisions (10);
- l. Coordinating writing sample scoring (5); and
- m. Writing sections of final report (4).

Fieldtest and Formatting Coordinator (Perez). The Fieldtest and Formatting Coordinator will be responsible for the following activities:

- a. Formatting fieldtest booklets (8);
- b. Preparing fieldtest administrator manual (2);
- d. Coordinating fieldtest printing (2);
- f. Designing fieldtest administrator training (2);
- g. Training fieldtest administrators (1);
- h. Organizing fieldtest materials (3);
- i. Delivering fieldtest materials (2);
- k. Receiving fieldtest materials (2);
- l. Analyzing fieldtest reaction forms (5);
- m. Selecting items for three (3) exam forms (5);
- n. Developing administrators' manuals (2);
- o. Coordinating printing of exam forms (5);



- p. Coordinating printing of answer sheets (1);
- q. Coordinating printing of manuals (1); and
- r. Writing sections of final report (4).

Program Planning Specialist (Bernknopf). The Program Planning Specialist will be responsible for the following activities:

- a. Making presentation at Deans' meeting (2);
- b. Meeting with UPS re: usage plans (2);
- c. Meeting with DSSS re: skill domains (2);
- d. Participating in design of test reporting system (5);
- e. Developing test program maintenance design (10);
- f. Establishing procedures for recommending minimum performance standards (10);
- g. Reporting to Task Force (4); and
- h. Writing sections of final report (4).

Measurement and Analysis Specialist (Rentz). The Measurement and Analysis Specialist will be responsible for the following activities:

- a. Making presentation at Deans' meeting (2);
- b. Designing fieldtest form/matrix sampling plan (2);
- c. Developing item data storage/updating/retrieval system (10);
- d. Scanning fieldtest results (1);
- e. Analyzing fieldtest results (7);
- f. Presenting fieldtest results to Task Force (2);
- g. Making presentations (2) to Task Force (4); and
- h. Writing sections of final report (4).

### 3.3 Time/Task Analysis

This section identifies the tasks referred to in Section 3.0 of this proposal, and also identifies the responsible person or agency and target dates for beginning and ending each task. Figure 3.1 presents those data.

FIGURE 3.1, TIME/TASK ANALYSIS

<u>TASK</u>	<u>RESPONSIBLE PARTY</u>	<u>TARGET DATE FOR BEGINNING</u>	<u>TARGET DATE FOR COMPLETION</u>
1. Meet with deans and SDE representative	T. Freijo/K. Freijo/Bernknopf	15 Jul 80	16 Jul 80
2. Appoint representatives to TAC (UPS, DSSS, IRS)	Deans/SDE	16 Jul 80	18 Jul 80
3. Meet with UPS	K. Freijo/Bernknopf	25 Jul 80	25 Jul 80
4. Develop Test Results Usage Plan	K. Freijo/Bernknopf	26 Jul 80	29 Jul 80
5. Develop tentative plans for skills identification	K. Freijo	30 Jul 80	10 Aug 80
6. Present tentative plans for skills identification to DSSS	K. Freijo	11 Aug 80	12 Aug 80
7. Identify domains and develop skills statements	DSSS/K. Freijo	11 Aug 80	12 Aug 80
8. Deliver document describing test domains, skills statements and validation proce- dures in S.C. to Task Force	T. Freijo	25 Aug 80	1 Oct 80
9. Milestone Review Meeting	T. Freijo/Task Force	15 Oct 80	15 Oct 80
10. Review existing tests	K. Freijo	13 Aug 80	22 Aug 80
11. Orient specifications writers	K. Freijo	23 Aug 80	26 Aug 80
12. Develop item specifications	Specifications Writers	27 Aug 80	15 Sep 80
13. Review/revise item specifications	K. Freijo/T. Freijo	16 Sep 80	28 Sep 80
14. Review specifications	DSSS	29 Sep 80	30 Sep 80
15. Revise specifications	K. Freijo/Specifications Writers	1 Oct 80	3 Oct 80

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(Figure 3.1 continued)

<u>TASK</u>	<u>RESPONSIBLE PARTY</u>	<u>TARGET DATE FOR BEGINNING</u>	<u>TARGET DATE FOR COMPLETION</u>
16. Orient item writers	K. Freijo	4 Oct 80	4 Oct 80
17. Write first one-third of items	Item Writers	5 Oct 80	17 Oct 80
18. Review/revise first one-third of items	K. Freijo/T. Freijo	18 Oct 80	31 Oct 80
19. Write second one-third of items	Item Writers	18 Oct 80	31 Oct 80
20. Review/revise second one-third of items	K. Freijo/T. Freijo	1 Nov 80	14 Nov 80
21. Write final one-third of items	Item Writers	1 Nov 80	14 Nov 80
22. Review/revise final one-third of items	K. Freijo/T. Freijo	15 Nov 80	23 Nov 80
23. Conduct first-stage review of items	K. Freijo/T. Freijo	24 Nov 80	2 Dec 80
24. Revise items	K. Freijo/Item Writers	3 Dec 80	10 Dec 80
25. Conduct second-stage review of items	IRS/T. Freijo/K. Freijo	11 Dec 80	12 Dec 80
26. Revise items	K. Freijo/Item Writers	13 Dec 80	23 Dec 80
27. Conduct readability study	Homan	1 Nov 80	1 Jan 81
28. Adjust item readability	K. Freijo	2 Jan 81	9 Jan 81
29. Prepare document describing item development and validation procedures	K. Freijo/T. Freijo	10 Jan 81	14 Jan 81
30. Deliver document describing test item development and validation procedures to Task Force	T. Freijo	15 Jan 81	15 Jan 81

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(Figure 3.1, continued)

<u>TASK</u>	<u>RESPONSIBLE PARTY</u>	<u>TARGET DATE FOR BEGINNING</u>	<u>TARGET DATE FOR COMPLETION</u>
31. Milestone Review Meeting	T. Freijo/Task Force	30 Jan 81	30 Jan 81
32. Develop Item Image File	Perez	10 Jan 81	21 Jan 81
33. Obtain estimates of number of examinees to be available for fieldtest	Perez/Deans	15 Jul 80	15 Oct 80
34. Select fieldtest sample	Perez	15 Oct 80	6 Dec 80
35. Contact selected fieldtest institutions to solicit cooperation	Perez	7 Dec 80	6 Jan 81
36. Make necessary fieldtest site arrangements; notify examinees	Institutions	7 Jan 81	21 Jan 81
37. Select fieldtest administrators	Perez/TAC	7 Jan 81	14 Jan 81
38. Orient fieldtest administrators	Perez	15 Jan 81	22 Jan 81
39. Secure fieldtest proctors	Fieldtest Administrators	22 Jan 81	29 Jan 81
40. Assign items to fieldtest forms	Rentz/Perez	10 Jan 81	11 Jan 81
41. Format fieldtest booklets	Perez	12 Jan 81	25 Jan 81
42. Print fieldtest booklets	Perez	26 Jan 81	2 Feb 81
43. Develop format of fieldtest answer sheet	INTRAN	7 Jan 81	14 Jan 81
44. Print answer sheets	INTRAN	27 Jan 81	2 Feb 81
45. Prepare fieldtest administrators' manual	Perez	12 Jan 81	26 Jan 81
46. Print fieldtest administrators' manual	Perez	27 Jan 81	2 Feb 81

(Figure 3.1, continued)

<u>TASK</u>	<u>RESPONSIBLE PARTY</u>	<u>TARGET DATE FOR BEGINNING</u>	<u>TARGET DATE FOR COMPLETION</u>
47. Prepare fieldtest comment sheets	Perez	27 Jan 81	30 Jan 81
48. Plan fieldtest administrator training session	Perez	25 Jan 81	30 Jan 81
49. Assemble fieldtest administrators; conduct training session	Perez	31 Jan 81	31 Jan 81
50. Assemble all fieldtest materials by site	Perez	4 Feb 81	5 Feb 81
51. Ship fieldtest materials	Perez	7 Feb 81	8 Feb 81
52. Receive and check fieldtest materials	Fieldtest Administrators	9 Feb 81	11 Feb 81
53. Orient fieldtest proctors	Fieldtest Administrators	12 Feb 81	13 Feb 81
54. Administer exams and examinee comment sheets	Fieldtest Administrators	12 Feb 81	13 Feb 81
55. Observe fieldtest administrations	Perez/Bernknopf	12 Feb 81	13 Feb 81
56. Collect and check all fieldtest materials against checklist	Fieldtest Administrators	13 Feb 81	14 Feb 81
57. Package fieldtest materials	Fieldtest Administrators	15 Feb 81	15 Feb 81
58. Complete fieldtest administrator comment sheets	Fieldtest Administrators	15 Feb 81	15 Feb 81
59. Ship fieldtest materials to Perez	Fieldtest Administrators	16 Feb 81	17 Feb 81
60. Prepare scanning and analysis programs	Rentz	26 Jan 81	19 Feb 81
61. Deliver answer sheets to INTRAN	Perez	20 Feb 81	20 Feb 81
62. Scan answer sheets	INTRAN	21 Feb 81	27 Feb 81

(Figure 3.1, continued)

<u>TASK</u>	<u>RESPONSIBLE PARTY</u>	<u>TARGET DATE FOR BEGINNING</u>	<u>TARGET DATE FOR COMPLETION</u>
63. Train writing sample scorers	K. Freijo	18 Feb 81	19 Feb 81
64. Score writing samples	K. Freijo/Scorers	20 Feb 81	25 Feb 81
65. Document results of writing sample scoring	K. Freijo	26 Feb 81	27 Feb 81
66. Conduct item analyses	Rentz	28 Feb 81	2 Mar 81
67. Develop Item Statistics File	Rentz	3 Mar 81	4 Mar 81
68. Identify non-fitting items	Rentz	4 Mar 81	6 Mar 81
69. Review/revise non-fitting items	Rentz/K. Freijo	7 Mar 81	9 Mar 81
70. Analyze fieldtest comment sheets	Perez	19 Feb 81	11 Mar 81
71. Document results from fieldtest comment sheets	Perez	12 Mar 81	13 Mar 81
72. Deliver document describing fieldtest procedures and results to Task Force	T. Freijo	15 Mar 81	15 Mar 81
73. Establish item selection criteria	Rentz/Perez	10 Mar 81	11 Mar 81
74. Identify Form 1 items using field- test results	Rentz	12 Mar 81	16 Mar 81
75. Make recommendations regarding Form 2 and Form 3 items	Rentz	17 Mar 81	19 Mar 81
76. Estimate reliabilities of test forms	Rentz	20 Mar 81	24 Mar 81
77. Prepare drafts of test forms	Perez	20 Mar 81	28 Mar 81
78. Select panel of judges for standard setting	Task Force	20 Mar 81	28 Mar 81



(Figure 3.1, continued)

<u>TASK</u>	<u>RESPONSIBLE PARTY</u>	<u>TARGET DATE FOR BEGINNING</u>	<u>TARGET DATE FOR COMPLETION</u>
79. Meet to develop minimum performance standards for mathematics and reading tests	Judges/Bernknopf	29 Mar 81	6 Apr 81
80. Meet to develop minimum performance standards for writing test	Judges/Bernknopf/K. Freijo	29 Mar 81	6 Apr 81
81. Prepare performance standards document	Bernknopf	7 Apr 81	7 May 81
82. Deliver document reporting validation findings with written recommendations for establishing minimum performance standards to Task Force	Bernknopf	15 May 81	15 May 81
83. Prepare drafts of technical manuals	Contractor	29 Mar 81	21 Apr 81
84. Deliver drafts and recommendations regarding final formats of test forms to Task Force	Rentz	15 May 81	15 May 81
85. Deliver drafts of technical manuals for mathematics, reading and writing tests	Rentz	15 May 81	15 May 81
86. Milestone Review Meeting	T. Freijo/Task Force	30 May 81	30 May 81
87. Prepare Final Project Report	Contractor	1 Jun 81	29 Jun 81
88. Deliver model test administrators' manual	T. Freijo	30 Jun 81	30 Jun 81
89. Deliver document with detailed procedures for test distribution	T. Freijo	30 Jun 81	30 Jun 81
90. Deliver document with detailed procedures for development of data bank and tracking system	T. Freijo	30 Jun 81	30 Jun 81
91. Deliver document with detailed procedures for test scoring, analyses and reporting	T. Freijo	30 Jun 81	30 Jun 81

(Figure 3.1, continued)

<u>TASK</u>	<u>RESPONSIBLE PARTY</u>	<u>TARGET DATE FOR BEGINNING</u>	<u>TARGET DATE FOR COMPLETION</u>
92. Deliver document with detailed procedures for maintaining item bank	T. Freijo	30 Jun 81	30 Jun 81
93. Deliver document with detailed procedures for test receipt and control	T. Freijo	30 Jun 81	30 Jun 81
94. Deliver document with detailed procedures for monitoring test administration	T. Freijo	30 Jun 81	30 Jun 81
95. Deliver final formats of proposed forms to Task Force	T. Freijo	30 Jun 81	30 Jun 81
96. Deliver technical manuals for mathematics, reading and writing tests	T. Freijo	30 Jun 81	30 Jun 81
97. Deliver Final Project Report	T. Freijo	30 Jun 81	30 Jun 81

#### 4.0 PERSONNEL QUALIFICATIONS

This section summarizes the qualifications of key project personnel and item specification/item writers, and describes the criteria to be used in selecting item reviewers. Vitae of key project personnel are provided in Appendix D.

##### 4.1 Key Project Personnel

Project Director. Dr. Tom D. Freijo is President of PDE Associates, Inc. He was formerly the Director of the Instructional Design and Evaluation Applications (IDEA) Center, and Professor of Educational Measurement and Research in the University of South Florida (USF) College of Education. Dr. Freijo has directed several projects similar to the proposed project. He directed the project to develop and fieldtest the Florida Minimal (Production) Writing Skills Tests and associated analytic scoring procedures for the Florida Department of Education. He also directed the project to score analytically and report the results of the 1978-79 Florida Minimal (Production) Writing Skills Assessment. Dr. Freijo was director of a project to develop 240 basic skills items for Florida's Statewide Student Assessment Tests, and directed another project to develop 240 items for the Florida Statewide Student Assessment Test, Part II (formerly called the Florida Functional Literacy Test). He directed the development of the Career Achievement Test Series, which was used in the evaluation of career education programs by several school districts throughout the State of Florida. He was the director of a project in which a set of secondary-level basic skills tests were developed for use in the Hillsborough County, Florida, testing program. Dr. Freijo directed a project to critique all basic skills item specifications used in the Florida Statewide Assessment Program. He also directed a project to empirically validate the use of different presentation modes with SLD students taking the Florida Statewide Student Assessment Tests. Dr. Freijo served as Director of a project to assess the teacher inservice training needs in the Fifth Congressional District of the State of Louisiana. He co-authored the Nutrition Education Assessment Series, which has been used in Florida, Georgia, Nebraska and Kansas as part of their statewide nutrition education needs assessment and evaluation activities. Dr. Freijo served as Team Leader for the bias review of more than 700 items used to develop Florida's Teacher Certification Examination. He has directed more than 30 funded projects in the areas of testing, evaluation, and research. Other professional experiences relevant to the proposed project include the evaluation of numerous programs for local school systems, the supervision of numerous evaluation projects in the University of South Florida College of Education, in surrounding school districts and abroad, and the conduct and publication of research dealing with test development and issues in measurement. Dr. Freijo has 13 years of teaching and consulting experience in testing and measurement, research and evaluation.

Item Development and Review Coordinator. Mrs. Kathryn K. Freijo is Vice President for Program Development of PDE Associates,



Inc. Mrs. Freijo was formerly the Consultant for Secondary Language Arts and Humanities for the Florida Department of Education. She has extensive experience of particular relevance to the proposed project. In her consultant role with the Florida Department of Education, she participated in numerous reviews of State minimum performance standards and skills, item specifications, and items for all phases of the Florida Statewide Student Assessment Program. Mrs. Freijo was actively involved in the development of the Florida Minimal (Production) Writing Skills Tests and associated analytic scoring procedures. She was also actively involved in the project to score and report the results of the 1978-79 Florida Minimal (Production) Writing Skills Assessment, and was particularly instrumental in designing procedures whereby those results could be used to develop and/or modify curricula. Since leaving the Florida Department of Education, Mrs. Freijo has served in an administrative or supervisory capacity in several contract projects. She served as Project Coordinator for the 1979 Critique of Basic Skills Item Specifications for Florida's Statewide Student Assessment Program, and as Project Coordinator for the 1979 project to develop 240 items for Florida's Statewide Student Assessment Test, Part II. Mrs. Freijo has served as director of a project to develop 500 basic skills items for Florida's Statewide Student Assessment Program, at grades three, five, eight and eleven. She served as Curriculum Specialist in a project to assess the teacher inservice training needs in the Fifth Congressional District of the State of Louisiana. Mrs. Freijo is co-author of the Nutrition Education Assessment Series, for which she wrote, reviewed and revised items, in addition to co-directing the development of the series. She currently is directing a project to develop approximately 900 specifications for communications skills items for use in the Palm Beach County, Florida, School District. Mrs. Freijo has experience as a project director, project coordinator, evaluator, research associate and technical writer on a number of contracted projects. She has served as a curriculum consultant throughout Florida and the Canadian maritime provinces. Mrs. Freijo has eleven years experience as a teacher and consultant, and has made numerous presentations at curriculum area conferences and research conferences on matters related to the teaching and assessment of language arts skills.

Fieldtest and Formatting Coordinator. Mrs. JoEllen V. Perez is Vice President for Administration of PDE Associates. She was formerly Assistant to Director of the IDEA Center at USF. Her experience in coordinating the development, preparation, formatting and fieldtesting of testing materials is extensive. Mrs. Perez has served as Project Coordinator and/or Project Administrator for several projects similar to the proposed project. She served as Fieldtest Coordinator for the project to develop and fieldtest the Florida Minimal (Production) Writing Skills Tests and associated scoring procedures, and as Project Administrator in the project to score and report the results of the 1978-79 Florida Minimal (Production) Writing Skills Assessment. Mrs. Perez was Project Coordinator for the 1978-79 project to develop 240 basic skills items for Florida's Statewide Assessment Program, and Project Administrator for the 1979 project to develop 240 items for the SSAT-II. Mrs. Perez coordinated the pilot testing and formatting of experimental test forms in a project

to develop 500 basic skills items for the Florida Statewide Student Assessment Program. Mrs. Perez had primary responsibility for the conduct of a study to determine useful testing procedures and formats for SLD students, for the Florida Department of Education. A major component of this study was a pilot test involving the development and implementation of complex procedures for formatting and presenting a variety of items and item types from Florida's Statewide Student Assessment Tests, Part I and Part II. Mrs. Perez had responsibility for the refinement and coordination of the USF College of Education Survey of Graduating Seniors each quarter from Fall 1976 through Spring 1978. This involved administration of norm-referenced and criterion-referenced tests of English, reading and mathematics, as well as the development, refinement and administration of various survey questionnaires. She served as Measurement/Evaluation Specialist in a project to assess the teacher inservice training needs in the Fifth Congressional District of the State of Louisiana. Mrs. Perez is co-author of the Nutrition Education Assessment Series. As part of the Florida statewide nutrition education needs assessment, Mrs. Perez coordinated the assessment of a statewide, representative sample in Florida of approximately 8,750 students at 14 grade levels, approximately 700 teachers and approximately 350 school food service personnel in the areas of nutrition knowledge, attitudes and habits. She also was responsible for coordinating the analysis of the results of that assessment. Mrs. Perez served as a consultant to the Florida Department of Education regarding the field-testing of the Florida Teacher Certification Examination.

Program Planning Specialist. Dr. Stanley Bernknopf currently is coordinator of the Georgia Student Assessment Program. In this position, he administers a testing program which involves a \$900,000 annual budget. Administrative aspects of this program involve instrument design, development and ongoing administration of instruments across several grades and content areas. Emphasis is placed on useful reporting of information. Prior to his current employment, Dr. Bernknopf worked with the Georgia State Department of Education to develop certification examinations for school counselors. During this same period, Dr. Bernknopf served on a State advisory committee overseeing the development of teacher certification examinations. During the past 10 years, Dr. Bernknopf has been actively engaged in activities relating to educational measurement. These activities have encompassed the design, development and administration of measurement instruments for public elementary and secondary education institutions, as well as, certification examinations for the Georgia State Department of Education. Dr. Bernknopf has published in the areas of competency based certification and criterion-referenced test development. He has presented papers on these topics at many national professional meetings, as well as regional and state conferences.

Measurement and Analysis Specialist. Dr. R. Robert Rentz currently is Director of the Georgia Regents' Testing Program, Professor in the Department of Educational Foundations at Georgia State University, and President of R&R Evaluations, Inc. Dr. Rentz was



formerly a member of the graduate faculty in the University of Georgia School of Education, where he served as Director of the Educational Research Laboratory. The major research at the laboratory involved a three-year analysis of the Anchor Test Study using the Rasch model. As Director of the Regents' Testing Program (since 1970), Dr. Rentz has the experience of maintaining over several years a minimum competency testing program in reading and writing at the college level. In addition, an instrument to measure reading, English, and math skills was developed for use in the University System of Georgia. This Basic Skills Examination is in the third year of operation using Rasch item banks for each area. As Professor in the Department of Educational Foundations at Georgia State University, Dr. Rentz teaches measurement and research courses, and is responsible for directing students' dissertations in related areas. Teaching graduate classes incorporates all of his current research. These associations provide opportunities to maintain his leadership in the area of measurement research. The State of Georgia has awarded contracts to Georgia State University for the development of statewide tests for all 1st, 4th, 8th, and 10th grade students. Dr. Rentz is the research consultant to this project while the administration is coordinated by a project director under the direction of Dr. Rentz. As President of R&R Evaluations, Inc., Dr. Rentz is responsible for the overall direction and activities of the company which currently emphasizes test development through the use of item banks, test equating applications and state assessment programs. A contract with the Psychological Corporation calls for design and analysis throughout the development stages of the Stanford Achievement Test, 1982 version; the research will involve both traditional and Rasch model item analysis and equating. Consulting to groups responsible for selecting and implementing minimum competency testing programs gives Dr. Rentz the opportunity to influence testing decisions throughout the country. He also is privy to the discussions of fellow researchers on current methodology, problems and resources in the field of measurement for large-scale applications. Continuing associations involve advising on Medical College Admissions Test equating, the statewide testing program for the State of Virginia, and Technical Advisory Committee on California Assessment Program and the RMC Advisory Committee on scaling and equating for the Title I evaluating and reporting system. Dr. Rentz has a publication record that includes numerous articles and chapters in books, paper presentations and seminars on important issues in the field of educational measurement.

#### 4.2 Item Specification Writers

Item Specification Writer (Mathematics). Dr. Andria M. Troutman is Professor of Mathematics Education at the University of South Florida. She has been involved in many aspects of Florida's statewide testing program, and has done extensive analyses of state performance results to determine desirable and undesirable characteristics of basic skills test items in mathematics. Dr. Troutman has been particularly involved in the identification of basic mathematics compe-



tencies for teachers, and in identifying important mathematics behaviors. She has served as a mathematics education consultant to in-service teacher training programs of numerous school districts, to major universities, to educational agencies in the State of Florida and the U.S. Office of Education, and to the Southern Association of Colleges and Schools. In addition, she currently serves as a consultant to several major publishing companies and is writing or revising several books and kits of instructional materials. She is the author of numerous books and articles on various aspects of mathematics and mathematics education.

Item Specification Writer (Reading). Dr. Lois I. Michael is Supervisor for Reading and Language Arts in the Pasco County, Florida, School District. She was formerly Assistant Professor and Director of the Reading Clinic at the University of South Florida. Dr. Michael holds a Doctor of Education degree from Auburn University, and has had a variety of professional experiences related to the assessment and teaching of communication skills. She is an experienced item specification and item writer and reviewer. Dr. Michael has served as a member of a group of reading supervisors who developed a packet of curriculum materials and test items designed for use by ten Florida school districts in their Compensatory Education programs and published by the Florida Desegregation Center. She has worked with several statewide committees in the clarification of Florida's Minimum Performance Standards and Skills, both in Reading and Writing. During the past year, she has written specifications for the Statewide Student Assessment Test, Part II, for the Florida Department of Education. Dr. Michael served as reading item writer in the 1980 project to develop 500 basic skills items for Florida's Statewide Student Assessment Tests. She currently is serving as Curriculum Expert Reviewer of approximately 900 specifications for communication skills items for use in the Palm Beach County, Florida, School District. In her position with Pasco County, Dr. Michael has, for the past three years, been responsible for developing district-level tests and curriculum materials in the areas of reading and writing across a number of levels.

Item Specification Writer (Writing). Dr. William W. West, Professor of English Education in the University of South Florida College of Education, has extensive experience in the area of communications. Dr. West developed all of the writing exercises in the project to develop and fieldtest the Florida Minimal (Production) Writing Skills Tests and associated analytic scoring procedures, and as Curriculum Area Specialist in the project to score and report the results of the 1978-79 Florida Minimal (Production) Writing Skills Assessment. Dr. West was Director of the project to develop the Florida Catalog of Performance Objectives in Written Composition. He has served as Curriculum Expert Reviewer for communications items in a project to develop 240 basic skills items, in another project to develop 240 practical application items, and in a project to develop 500 basic skills items, all for the Florida Department of Education. Dr. West wrote both his M.A. thesis (Iowa, 1953) and his Ph.D. dissertation

(Syracuse, 1966) on the teaching of written composition. He has written and/or supervised the writing of twenty junior and senior high school textbooks on written composition. In addition, he is the author of a number of books, chapters in books, and articles dealing with various aspects of instruction, curriculum design and measurement in the area of language arts education. Dr. West contributed as an item writer for both the 1973 and the 1982 Stanford Language Arts Examinations in language and listening.

#### 4.3 Item Writers

Item Writer (Mathematics). Mr. Ronald Cuervo has been chairman of the mathematics department at a large high school in Hillsborough County, Florida, since 1977. He also serves as an adjunct professor in mathematics at Hillsborough Community College. He has been a mathematics teacher for twelve years. He was Coordinator of the Remedial Summer Program in the county's eleven high schools. He earned his Master of Education degree in mathematics at the University of Florida. Mr. Cuervo served as a mathematics item writer for the 1979 project to develop items for Florida's Statewide Student Assessment Test, Part II (SSAT-II), and as a mathematics item writer for the 1980 project to develop 500 basic skills items for Florida's Statewide Student Assessment Tests. He also wrote items for the Hillsborough County Eleventh Grade Criterion-Referenced Test. Mr. Cuervo has been involved in several county curriculum projects to develop guides and criterion-referenced tests for Algebra I and II.

Item Writer (Reading). Ms. Dean Fox Holland has worked in public schools for fourteen years, and has been chairman of the English-Foreign Language Department at a large high school in Hillsborough County, Florida, for the past six years. She holds a Master's Degree in English Education. Her work in basic skills includes editing and writing material for the Hillsborough County Communication Skills modules, a 300-page manual on Florida's eleventh-grade basic skills. Ms. Holland is an experienced item writer and reviewer. She worked on a team of eleven to write the Hillsborough County Reading-Communication Criterion-Referenced Test, and was Co-chairman of the revised version. Ms. Holland served as an item reviewer in both the 1978-79 project to develop 240 basic skills items for Florida's Statewide Student Assessment Tests, and in the 1979 project to develop 240 items for Florida's Statewide Student Assessment Test, Part I. She served as an item writer in the 1980 project to develop 500 basic skills items for Florida's Statewide Student Assessment Tests. Ms. Holland was a member of the committee which wrote the Hillsborough County Senior Advanced Placement Curriculum in English. She has served as a humanities consultant to the University of South Florida, and has spoken at local and state meetings on the topics of humanities, composition and basic skills. Ms. Holland also has conducted workshops and seminars at Tampa University, Florida Technological University, at Columbia University, and for National Scholastic Press Association in Chicago in graphics and journalism, for which she has won numerous awards.

Item Writers (Writing). The Writing Item Specification Writer and the Skills/Item Development Coordinator will collaborate in the development of writing exercises. The qualifications of both of these staff members have been described previously in this proposal.



## 5.0 CORPORATE CAPABILITY

### 5.1 General Capability

The training and professional experience of the associates of PDE combine measurement, research, and curriculum expertise essential to understanding and addressing the needs of educational agencies. PDE is dedicated to using the best extant knowledge and methodology in serving its clients' needs.

PDE is committed to a team approach in planning and conducting all operations. Each project is organized specifically to provide a combination of expertise appropriate to the specific requirements of the project. In addition to the expertise resident in its permanent staff, PDE engages the services of numerous professionals who demonstrate outstanding capability in particular areas. PDE is located in Tampa, Florida, in close proximity to the University of South Florida and has available several outstanding faculty members of USF who serve as consultants or key project personnel as their services are needed. Faculty members at other major colleges and universities also serve as consultants and key project personnel as they are needed.

The successful conduct of numerous contracted projects indicates the ability of the associates of PDE to work cooperatively with a wide variety of institutions and agencies. The associates have conducted numerous research, development and evaluation projects through contracts with local school districts, the Florida Department of Education, and the North Louisiana Consortium. PDE recognizes the time constraints under which agencies typically operate and assures the delivery of its services and products in a timely and cost-effective manner.

The proposed project director is a highly experienced project manager, having directed more than 30 projects in the areas of testing, program evaluation and needs assessment. The following list will give the reader an idea of the breadth of projects completed under the direction of the associates.

#### Program Evaluation

Evaluation of ESEA Title I projects in Pasco and Polk Counties (six projects, four directed by Dr. Freijo; Mrs. Freijo, Project Coordinator for one project, Special Consultant for one project; Mrs. Perez, Project Evaluator for one project)

Evaluation of ESEA Title VII Bilingual Education projects in Collier, Duval and Pasco counties, and for the Florida DOE (five projects, all directed by Dr. Freijo)

Evaluation of Career Education projects in Manatee, Pasco and Sarasota counties (four projects, all directed by Dr. Freijo)

Evaluation of Florida ESEA Title VII Technical Assistance Program (two projects, both directed by Dr. Freijo; Mrs. Freijo, Coordinator for one project)

Evaluation of Hillsborough County's Extended School Year Program (directed by Dr. Freijo)

Evaluation of Humanities and the Environment Project (National Endowment for the Humanities) at New College (directed by Dr. Freijo)

Evaluation of Project OUNCE (two projects, both directed by Dr. Freijo; Mrs. Freijo Project Evaluator for one project; Mrs. Perez, Project Evaluator for one project)

Evaluation of Title VII Master's Degree Program in Bilingual Education at the University of Miami (directed by Dr. Freijo)

Evaluation of the Florida International University Competency Based Bilingual Education Program (directed by Dr. Freijo)

#### Instrument Development, Validation and Administration

Development of Criterion-Referenced Instruments for Hillsborough County's Testing Program (directed by Dr. Freijo)

Development and Fieldtesting of Writing Items and Scoring Procedures for Minimal Writing Skills Assessment, Florida's Statewide Assessment Program (directed by Dr. Freijo; Mrs. Perez, Fieldtest Coordinator; Mrs. Freijo, Florida DOE Curriculum Liaison)

Development of 240 Basic Skills Items for Florida's Statewide Assessment Program (directed by Dr. Freijo; Mrs. Perez, Project Administrator)

Scoring and Reporting of Results for Florida's Minimal Writing Skills Assessment (directed by Dr. Freijo; Mrs. Perez, Project Administrator; Mrs. Freijo, Florida DOE Curriculum Liaison)

Development of Items for Florida's Statewide Student Assessment Test, Part II (directed by Dr. Freijo; Mrs. Perez, Project Administrator; Mrs. Freijo, Project Coordinator)

Study to Determine Recommended Format Adaptations of Florida's Statewide Student Assessment Tests for Students with Specific Learning Disabilities (directed by Dr. Freijo; Mrs. Perez, Project Coordinator)

Review of Basic Skills Item Specifications for Florida's Statewide Student Assessment Program (directed by Dr. Freijo; Mrs. Freijo, Project Coordinator)

Development of the Nutrition Education Assessment Series, a series of seven instruments to assess knowledge, attitudes and habits

in the area of nutrition (directed by Dr. Freijo, Mrs. Freijo, and Mrs. Perez)

Development of 500 Basic Skills Items for Florida's Statewide Student Assessment Program (directed by Mrs. Freijo; Dr. Freijo, Technical Specialist; Mrs. Perez, Pilot Test and Format Coordinator)

#### Needs Assessment

Louisiana Teacher Inservice Training Needs Assessment (directed by Dr. Freijo; Mrs. Freijo, Curriculum Specialist; Mrs. Perez, Measurement/Evaluation Specialist)

Study to Determine the Special Educational Needs of Florida's Secondary Level Migratory Students (directed by Dr. Freijo; Mrs. Perez, Project Coordinator; Mrs. Freijo, Special Consultant)

Needs Assessment for Nutrition Education in Florida (directed by Dr. Freijo; Mrs. Freijo, Project Coordinator; Mrs. Perez, Project Coordinator)

#### 5.2 Activities Related to Proposed Project

The proposers have directed a number of projects similar to the proposed project. Several such projects are described here.

A project to develop and fieldtest the Florida Minimal (Production) Writing Skills Tests and associated scoring and procedures. In this project, eight test forms were developed to measure state-adopted minimal writing skills at four grade levels. Seven of the test forms elicit writing samples from the examinees, and the eighth elicits oral responses from examinees placed on cassette tape recordings. All test forms contain between one and four items of varying complexity; each item may be used to measure more than one skill. The scoring procedures require that each writing sample be rated according to an analytic scoring scheme unique to each skill being measured. Each scale point for each skill is defined and exemplified in such a way that scores on the test can provide valuable diagnostic information. Aggregation of data on individual students can be used in making curricular decisions on a larger scale. (Contact Person: Dr. Kenneth L. Loewe, Director of Test Development, Student Assessment Section, Florida Department of Education (904)488-8198).

A project to score and report the results of the 1978-79 Florida Minimal (Production) Writing Skills Assessment. In this project, 48 scorers and eight scoring leaders were selected and trained in the application of Florida's analytic scoring procedures. Approximately 3,000 test copies were scored. For ratings of skill measures for a total of 46 scores, interscorer agreement greater than 80 percent was achieved for pairs of raters on 45 scores. The results obtained were descriptive of specific levels of performance among examinees on each of the minimum competencies assessed. These results were useful in determining needed curricular modifications. (Contact Person: Dr. Kenneth L. Loewe, Director of Test Development, Student Assessment Section, Florida DOE, (904)488-8198)



A project to develop a series of tests called the Career Achievement Tests. These tests were used by six Florida counties to evaluate the effectiveness of their career education programs. The test series includes three levels with two forms at each level, and contains a total of 170 items. Teachers were trained to write items, and other groups of teachers served as item reviewers. The development of the test series was described in an article, "A Case Study of the Development of a Career Education Achievement Test," which was published in Measurement and Evaluation in Guidance to serve as a model for local test development efforts. (Contact Person: Mr. Elmo Collins, Supervisor of Pupil Personnel Services, Pasco County, (813)996-3600)

A project to develop criterion-referenced instruments for use in the Hillsborough County, Florida, testing program. Tests were developed in secondary math and secondary language arts, grades seven through ten. Teachers were trained to write items, and school system supervisors and University of South Florida professors served as reviewers. Approximately 500 items were developed. (Contact Person: Mrs. Sarah Jean Jolly, Director of Program Evaluation, Palm Beach County School System, (305)793-5150)

A project to develop basic skills items for Florida's Statewide Student Assessment Program. In this project, 240 test items in communication skills and mathematics were written, using DOE item specifications, reviewed and revised to become part of an item pool for the Florida Basic Skills Assessment Program. (Contact Person: Dr. Kenneth Loewe, Director of Test Development, Student Assessment Section, Florida DOE, (904)488-8198)

A project to critique all basic skills item specifications used in the Florida Statewide Assessment Program. In this project, 350 test item specifications in communication skills and mathematics, at grades three, five, eight and eleven were critiqued and suggestions made for their revision. (Contact Person: Dr. Thomas Fisher, Administrator, Student Assessment Section, Florida DOE, (904)488-8198)

A project to determine appropriate test modifications for learning disabled students. This project entailed developing, formatting, and fieldtesting different test presentation modes for use in administering the Statewide Student Assessment Tests to SLD students in Florida. (Contact Person: Dr. Philip Grise, Director of Exceptional Student and Adult Testing, Student Assessment Section, Florida DOE (904)488-8198)

A project to develop items for Florida's Statewide Student Assessment Test, Part II. In this project 240 test items in communication skills and mathematics were written, using DOE item specifications, reviewed and revised to become a part of an item pool for the Florida SSAT-Part II test. (Contact Person: Dr. Thomas Fisher, Administrator, Student Assessment Section, Florida DOE, (904)488-8198)

A project to develop basic skills items for Florida's Statewide Student Assessment Program. In this project 500 test items in communication skills and mathematics were written, using DOE item specifications, reviewed and revised to become part of an item pool for the Florida Basic Skills Assessment Program. (Contact Person: Dr. Kenneth Loewe, Director of Test Development, Student Assessment Section, Florida DOE, (904)488-8198)

### 5.3 Corporate Organization and Resources

Planning, Development & Evaluation Associates, Inc. is a Tampa-based corporation. Corporate offices are located at 8910 N. Dale Mabry, Tampa, Florida 33614. PDE's President is authorized to bind the corporation in contractual agreements. Figure 5.1 illustrates the corporate organization of PDE Associates.

PDE is committed to a team approach in planning and conducting all operations. Each associate is fully participant in all decision-making and in providing corporate leadership. Each project is organized specifically to provide a combination of expertise appropriate to the particular requirements of the project. Figure 5.2 illustrates the proposed project organization, and Figure 5.3 illustrates the relationship of the proposed project to the general corporate organization.

PDE's corporate headquarters occupy two adjoining office suites totaling approximately 1500 square feet of space. PDE has a permanent staff of eight (8), including three (3) consultants with expertise in measurement, research and curriculum; two (2) curriculum/research specialists; two (2) administrative/research assistants, and one (1) clerical assistant. In addition to its permanent staff, PDE currently employs numerous short-term project consultants. Located in close proximity to the University of South Florida, PDE has available several outstanding faculty members at USF who serve as consultants to key project personnel as their services are needed. Faculty members at other major colleges and universities also serve as consultants and key project personnel as they are needed.

PDE's office facilities provide individual office space for each employee, a conference room that accommodates twenty (20) people and a limited-access file room designed to ensure security for test development projects and other projects that involve classified or otherwise confidential materials.

PDE's facilities are equipped to conduct educational research and development projects, with special equipment to accommodate the need for survey and test instrument design and volume text processing and copying. For special printing needs involving typesetting, graphics or color reproduction, PDE contracts, on priority status, with Lithocolor, Inc., of Tampa. For special machine scoring and digital computer needs, PDE has time-sharing arrangements with several organizations.

FIGURE 5.1  
CORPORATE ORGANIZATION

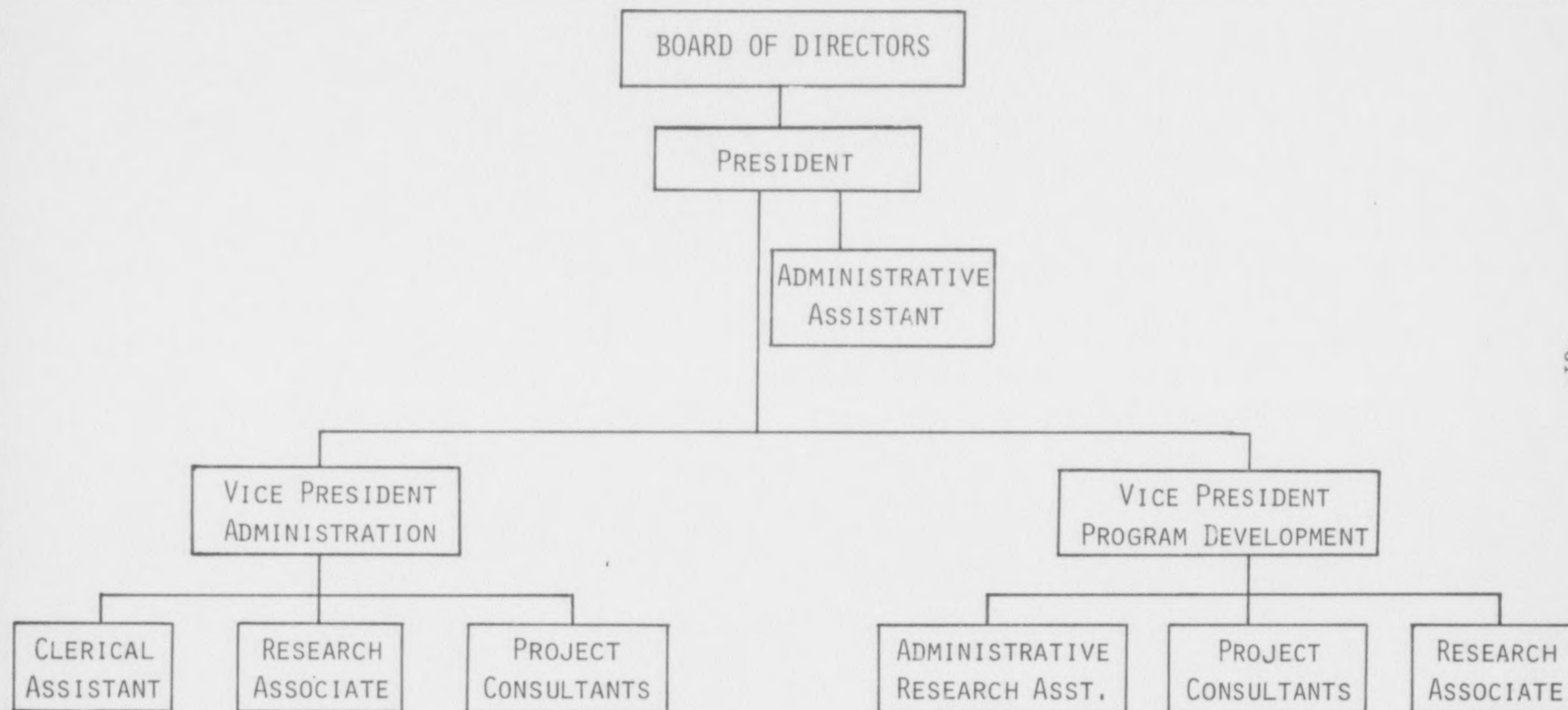




FIGURE 5.2  
PROJECT ORGANIZATION

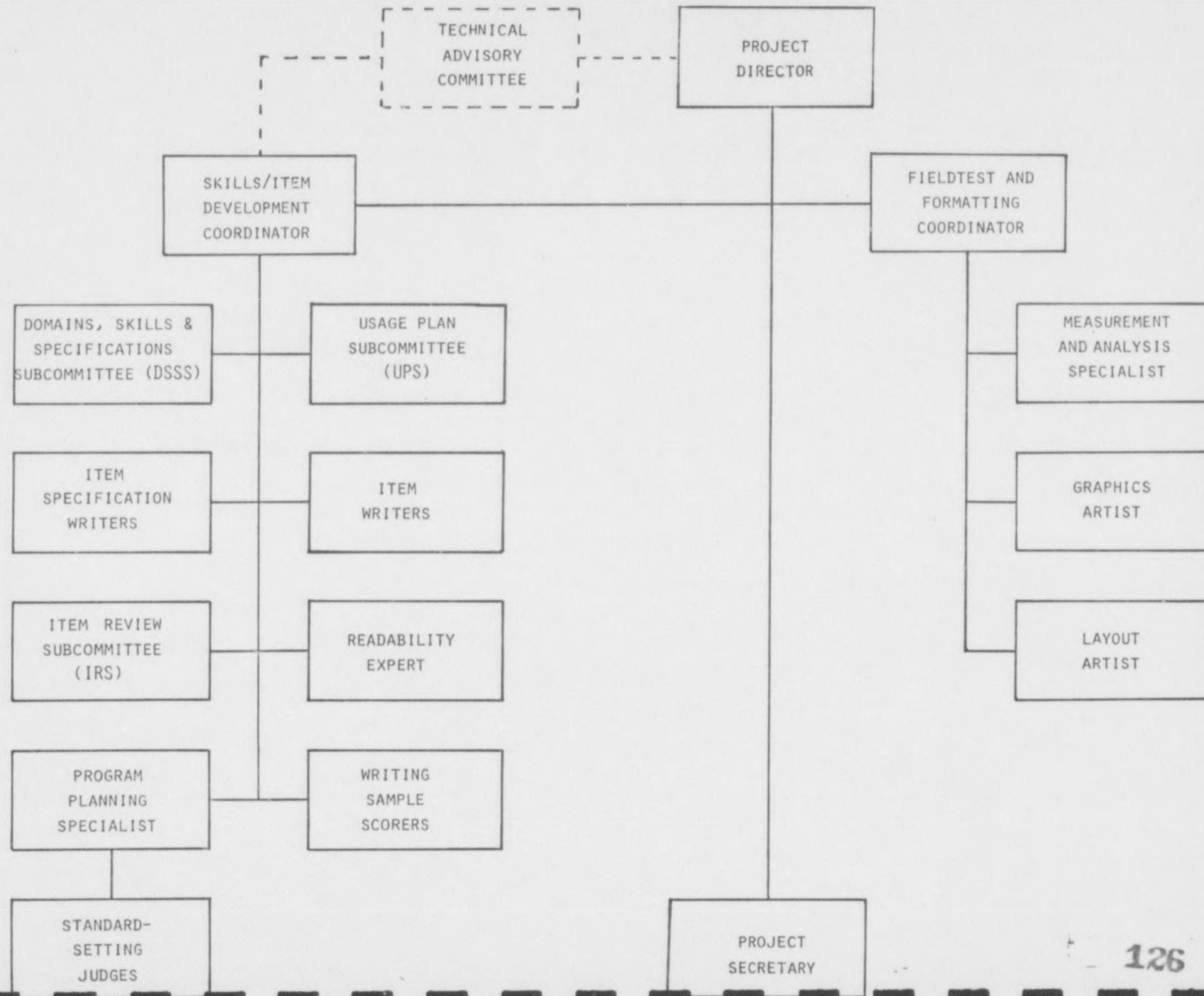
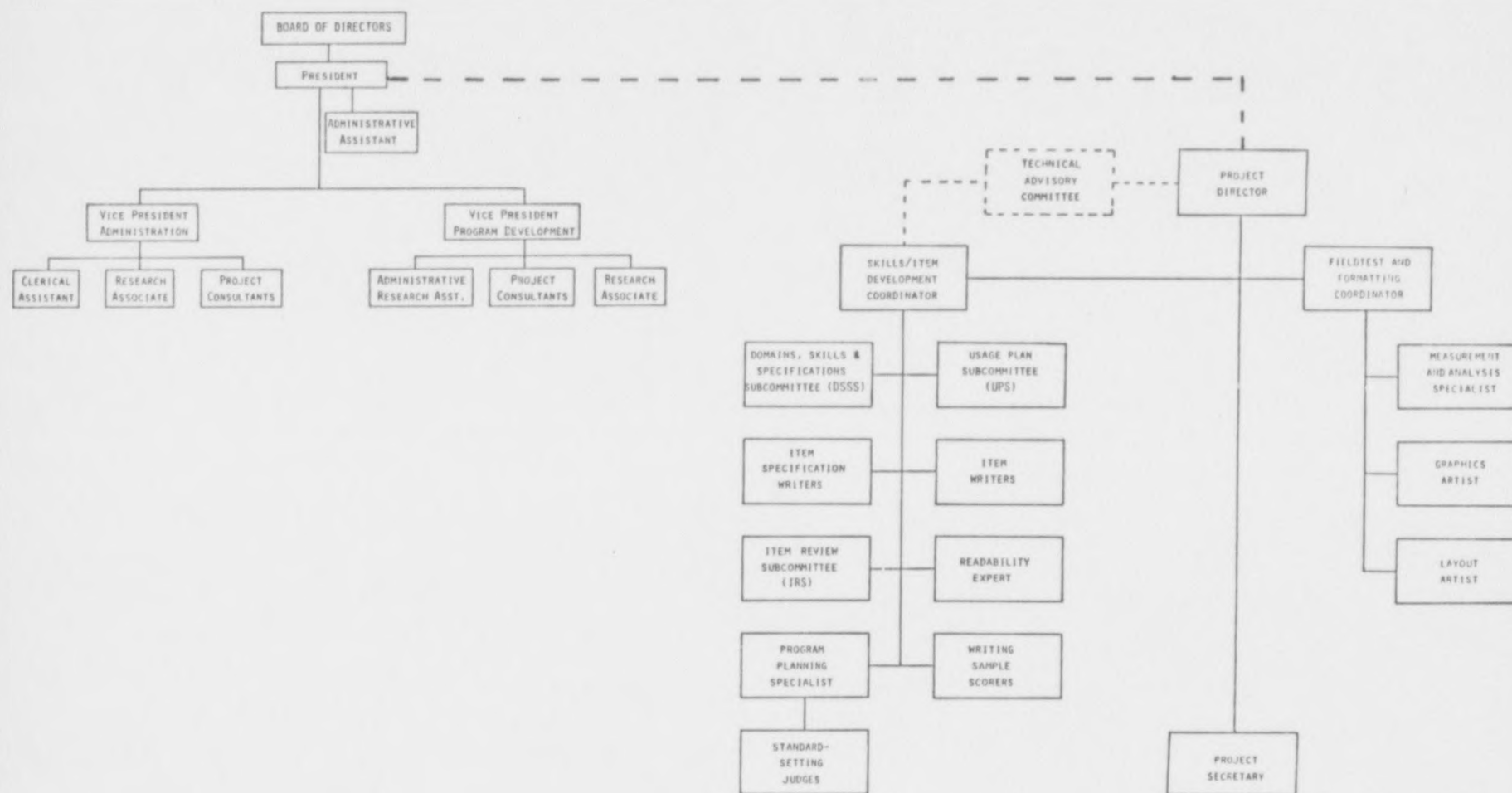


FIGURE 5.2  
RELATIONSHIP OF PROJECT ORGANIZATION TO CORPORATE ORGANIZATION



APPENDIX A  
FOOTNOTES  
LIST OF REFERENCES



#### FOOTNOTES

- 1) This program, which is being used in the development of the 1982 Stanford Achievement Tests, has been tested against all currently available Rasch model estimation programs and has been found to conform to desirable criteria.
- 2) Georgia Association of Educators v. Nix, 407 F. Supp. 1102 (1976).  
  
United States v. State of North Carolina, 400 F. Supp. 343 (E.D.N.C. 1975), 425 F. Supp. 789 (E.D.N.C. 1977).  
  
United States v. State of South Carolina, 15 FEP Cases 1196 (D.C.S.C. 1977).
- 3) Nedelsky Method, Modified Nedelsky, Ebel's Method, Angoff's Method, Modified Angoff, Jaeger's Method. For a complete review see Hambleton and Eignor, 1979.

## REFERENCES

- Angoff, W. H. Scales, norms, and equivalent scores. In R. L. Thorndike (Ed.), Educational measurement. Washington, D.C.: American Council on Education, 1971.
- Bernknopf, S. Cut-scores and alternate forms: A new frontier or back to the trenches. Paper presented at the meeting of the National Council on Measurement in Education, Boston, April 1980.
- Brigman, S. L. Rasch model test equating with three multiple test equating designs (Doctoral dissertation, University of Georgia, 1976). Dissertation Abstracts International, 37 (06-A), 3570. (University Microfilms No.76-28862).
- Cooper, C. R. Measuring growth in writing. English Journal, 1975, 64,111-120.
- Diederich, P. Measuring growth in English. Urbana, IL: National Council of Teachers of English, 1974.
- Doherty, V. W. Domain referenced measurement using a Rasch calibrated item bank (Occasional paper, No. 18). Portland, Oregon: Portland Public Schools, 1978.
- Forster, F. Sample size and stable calibrations. In C. Karr (Chair), Exploring the Rasch test scaling procedure. Symposium presented at the meeting of the American Educational Research Association, San Francisco, April, 1976.
- Hambleton, R. K. Constructing and using criterion-referenced tests. AERA Training Program Materials, 1980.
- Hambleton, R. K., & Eignor, D. R. Competency test development, validation, and standard-setting. In R. Jaeger & C. Tittle (Eds.), Minimum competency achievement testing. Berkeley, CA: McCutchan Publishing Company, 1980.

- Hambleton, R. K., Swaminathan, H., Algina, J., & Coulson, D. B. Criterion-referenced testing and measurement: A review of technical issues and developments. Review of Educational Research, 1978, 48, 1-47.
- Jaeger, R. M., Measurement consequences of selected standard-setting models. Florida Journal of Educational Research, 1976, 18, 22-27.
- Jaeger, R. M., A proposal for setting a standard on the North Carolina High School Competency Test. Paper presented at the 1978 spring meeting of the North Carolina Association for Research in Education, Chapel Hill, 1978.
- Linn, R. L. Demands, cautions, and suggestions for setting standards. Journal of Educational Measurement, 1978, 15, 301-308.
- Meskauskas, J. A. Evaluation models for criterion-referenced testing: Views regarding mastery and standard-setting. Review of Educational Research, 1976, 46, 133-158.
- Millman, J. Passing scores and test lengths for domain-referenced measures. Review of Educational Research, 1973, 43, 205-216.
- Mullis, I. V. S. Highlights and trends from national assessment: Writing and changes in writing trends. Education Commission of the States, 1977. (ERIC Document Reproduction Service No. ED 128 814)
- Nedelsky, L. Absolute grading standards for objective tests. Educational and Psychological Measurement, 1954, 14, 3-19.
- Popham, W. J. Setting performance standards. Los Angeles, CA: Instructional Objectives Exchange, 1978.
- Rentz, R. R. Monitoring the quality of an item pool calibrated by the Rasch model. Paper presented at the annual meeting of the National Council on Measurement in Education, Toronto, Canada, March 1978.



- Rentz, R. R. Characteristics of tests used in a minimum competency testing program. In R. Jaeger and C. Tittle (Eds.), Minimum competency achievement testing. Berkeley, CA: McCutchan Publishing Company, 1980.
- Sanders, S., & Littlefield, J. Perhaps essays can reflect significant improvement in freshman composition. Research in the Teaching of English, 1975, 9, 145-153.
- Schumacher, C. F. (Moderator). Applying the Rasch model to equate examinations in the field of medicine. Symposium presented at the joint meeting of the American Educational Research Association and the National Council on Measurement in Education, San Francisco, April 1979.
- Shepard, L. A. Setting standards and living with them. Florida Journal of Educational Research, 1976, 18, 23-32.
- Steele, J. The use of realistic tasks to measure applied general education skills. Paper presented at the meeting of the National Council on Measurement in Education, San Francisco, April 1979.
- White, E. M. Comparison and contrast: The 1977 California State University and Colleges Freshman English Equivalency Examination. Long Beach, CA: English Council of the California State University and Colleges, 1977. Same title and source, 1974: ERIC Document Reproduction Service No. ED 114 826. Same title and source, 1973: ERIC Document Reproduction Service No. ED 114 825.
- Williams, P. L. Applications of the Rasch model to state-wide assessment programs. Paper presented at the annual meeting of the Eastern Educational Research Association, Kiawah Island, South Carolina, February 1979.

APPENDIX B  
SAMPLE ITEM SPECIFICATION

SKILL: Apply rules of order of operations to solve problems involving addition, subtraction, multiplication, and/or division.

GENERAL MEASUREMENT CONSIDERATIONS	ITEM STRUCTURE	STIMULUS CHARACTERISTICS	RESPONSE CHARACTERISTICS
<p>The objective in measuring this skill is to determine whether students understand the rules of order of operation. Therefore, the use of numbers that pose complex computational tasks should be avoided so that computational error does not cause students to miss these items.</p>	<ol style="list-style-type: none"> <li>Numbers in the stem should be presented horizontally.</li> <li>Options should be listed vertically below the stem.</li> <li>Directions should appear once for each set of items:  "For each of the following items, simplify the expression."</li> </ol>	<ol style="list-style-type: none"> <li>Three numbers should be used.</li> <li>Integer values between 1 and 100 should be used.</li> <li>The results of each step in the solution should yield an integer value.</li> <li>Some items should combine multiplication or division with addition or subtraction.</li> <li>Some items should use only addition and subtraction operations.</li> <li>Some items should use only multiplication and division operations.</li> <li>Some items should contain parentheses that affect the general order of operations.</li> </ol>	<ol style="list-style-type: none"> <li>Each item should contain one correct and three incorrect responses.</li> <li>Distractors should include the following mistakes where applicable:               <ol style="list-style-type: none"> <li>Addition or subtraction carried out before multiplication or division, when no parentheses are used.</li> <li>Operations not carried out from left to right when only multiplication and division are involved and no parentheses are used.</li> <li>Parentheses ignored and not simplified first.</li> </ol> </li> <li>When the mistakes listed above have been exhausted for any given item, the following mistakes are to be used:               <ol style="list-style-type: none"> <li>Use of wrong operation in first operation, but operations performed in correct order.</li> <li>Use of wrong operation in second operation, but operations performed in correct order.</li> </ol> </li> <li>"None of the above," "all of the above," etc. may <u>not</u> be used.</li> <li>Only integer values should be used.</li> <li>Options should be arranged in ascending order of magnitude.</li> </ol>
	<p><u>GRAPHICS CHARACTERISTICS</u></p> <p>No graphics are necessary for these items.</p>		



SAMPLE ITEMS

DIRECTIONS: For each of the following items, simplify the expression.

1.  $10 - 2 \times 4$

- a. 2
- b. 4
- c. 32
- d. 48

3.  $20 + 3 + 5$

- a. 12
- b. 22
- c. 28
- d. 300

2.  $24 \div (4 \times 2)$

- a. 3
- b. 4
- c. 12
- d. 40

4.  $12 \times 6 \div 2$

- a. 9
- b. 24
- c. 36
- d. 48

APPENDIX C  
ITEM REVIEW MATRIX AND FORMS

# ITEM REVIEW MATRIX

Item Weaknesses to be Examined	CONTRACTOR REVIEW	CONTENT REVIEW	ITEM BIAS REVIEW
1. Inappropriate Conceptual Difficulty	X	X	
2. Inappropriate Reading Level	X	X	
3. Poor Skill/Item Relationship	X	X	
4. Poor Specifications/Item Relationship	X		
5. Unclear Item Directions	X	X	
6. Incorrect Keying	X	X	
7. Inappropriate Foils	X	X	
8. Irrelevant Pictorial Material	X	X	
9. Poor Student Appeal		X	
10. Racially Offensive Material			X
11. Sex-Offensive Material			X
12. Stereotypic Depictions Debasing of Race			X
13. Stereotypic Depictions Debasing of Sex			X
14. Portrayal of Racial Groups as Unequal			X
15. Portrayal of Sex Groups as Unequal			X
16. Clues/Information Beneficial or Detri- mental to Specific Cultural/Racial Religious Groups			X
17. Clues/Information Beneficial or Detri- mental to Either Sex			X
18. Group-Specific Language			X
19. Superfluous Material	X		
20. Tricky Expressions	X		
21. Unnecessary Clues	X		
22. Unreasonable Option Order			
23. Item Interdependence			
24. Inconsistent Item Format (as per State rules)			
25. Imbalance in Correct Options (across items)			
26. Patterns in Option Length			



ITEM REVIEW FORM  
FOR CONTRACTOR REVIEW

CONTENT AREA \_\_\_\_\_ DOMAIN \_\_\_\_\_

SKILL NUMBER \_\_\_\_\_ ITEM NUMBER \_\_\_\_\_

I. LIST OF ITEM CHARACTERISTICS

(Circle One)

(Specify if NO)

1. Is conceptual difficulty  
appropriate for target  
student?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

2. Is item consistent with  
skill statement?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

3. Is item consistent with  
item specifications?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

4. Are item directions clear?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

5. Is item format appropriate?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

6. Is keyed option the only  
correct answer?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

7. Are item options appropriate?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

8. Are options of approximately  
equal length?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

<u>LIST OF ITEM CHARACTERISTICS</u>	<u>(Circle One)</u>	<u>(Specify if NO)</u>
9. Are item options reasonably ordered?	YES NO	<hr/> <hr/>
10. Does the item avoid superfluous material?	YES NO	<hr/> <hr/>
11. Does the item avoid tricky words, phrases, and constructions?	YES NO	<hr/> <hr/>
12. Does the item avoid unnecessary clues?	YES NO	<hr/> <hr/>
13. Is pictorial material relevant?	YES NO	<hr/> <hr/>
14. Is item free of dependence on other items?	YES NO	<hr/> <hr/>

II. SUGGESTED ITEM REVISIONS (Indicate the general nature of the revisions you feel are necessary to improve the item.)

DESCRIPTION OF TERMS USED ON  
CONTRACTOR'S REVIEW FORM

1. An item should be noted for inappropriate conceptual difficulty level if the item measures a concept at clearly too low or too high a level of sophistication for the target student.
2. An item should be noted for inappropriate reading level if the item contains key words, phrases, or expressions that are clearly above the grade level of the target student.
3. An item should be noted for inconsistency with skill statement if the item does not appear to require the student to display the skill called for on the item specification sheet.
4. An item should be noted for inconsistency with item specifications if it clearly violates any one of the stimulus attributes or response attributes required on the item specification sheet.
5. An item should be noted for unclear directions if the item stem fails to clearly set the task required of the student; the most common deficiency in this regard is failure to provide the student all the information needed to properly interpret the item.
6. An item should be noted for incorrectly keyed answer if it is apparent that the keyed answer is neither the correct nor best answer to the item.
7. An item should be noted for inappropriate foils if one or more of its foils (incorrect options) appears to be so patently implausible that it is unlikely to attract any students, even the most ignorant or naive. The foils of an item, to be functional, should reflect common mistakes, misconceptions, and misunderstandings related to the skill being measured.
8. An item should be noted as containing superfluous material if the item contains information which is neither relevant to the item nor necessary for the student in interpreting and responding to the item.
9. The item should be noted as containing tricky words, phrases, or constructions if the item contains material that could work to mislead an otherwise knowledgeable student. Trick material often takes the form of superfluous information embedded in the item; such superfluous information can throw a student off the correct mental track because most students assume an item contains only necessary information.
10. An item should be noted as containing unnecessary clues if, because of its content or structure, the item contains "give-away" hints that could allow a student to spot the correct answer without having the requisite concept or skill.
11. An item should be noted for irrelevant pictorial material if pictures, drawings, graphs, and other visual displays appear conceptually inconsistent with the printed portion of the item.



ITEM REVIEW FORM  
FOR CONTENT REVIEW

CONTENT AREA \_\_\_\_\_ DOMAIN \_\_\_\_\_

SKILL NUMBER \_\_\_\_\_ ITEM NUMBER \_\_\_\_\_

I. LIST OF ITEM  
CHARACTERISTICS

(Circle One)

(Specify if NO)

1. Is conceptual difficulty  
level appropriate for  
target student?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

2. Is item consistent with  
skill statement?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

3. Are item directions clear?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

4. Is keyed answer correct?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

5. Are item foils appropriate?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

6. Is pictorial material  
relevant?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

7. Does item have student appeal?

YES NO

\_\_\_\_\_  
\_\_\_\_\_

II. SUGGESTED ITEM REVISIONS (Indicate the general nature of the revisions you feel are  
necessary to improve the item.)

DESCRIPTION OF TERMS  
FOR CONTENT REVIEW

1. An item should be noted for inappropriate conceptual difficulty level if the item measures a concept at clearly too low or too high a level of sophistication for the target student.
2. An item should be noted for inappropriate reading level if the item contains key words, phrases, or expressions that are clearly above the grade level of the target student.
3. An item should be noted for inconsistency with skill statement if the item does not appear to require the student to display the skill called for on the item specification sheet.
4. An item should be noted for unclear directions if the item stem fails to clearly set the task required of the student; the most common deficiency in this regard is failure to provide the student all the information needed to properly interpret the item.
5. An item should be noted for incorrectly keyed answer if it is apparent that the keyed answer is neither the correct nor best answer to the item.
6. An item should be noted for inappropriate foils if one or more of its foils (incorrect options) appears to be so patently implausible that it is unlikely to attract any students, even the most ignorant or naive. The foils of an item, to be functional, should reflect common mistakes, misconceptions, and misunderstandings related to the skill being measured.
7. An item should be noted for irrelevant pictorial material if pictures, drawings, graphs and other visual displays appear conceptually inconsistent with the printed portion of the item.
8. An item should be noted as lacking student appeal if the context and examples of the item appear alien to the natural interests of the target student.

REVIEW FORM  
FOR ITEM BIAS REVIEW

CONTENT AREA \_\_\_\_\_ DOMAIN \_\_\_\_\_

SKILL NUMBER \_\_\_\_\_ ITEM NO. \_\_\_\_\_

I. AVOIDING THE APPEARANCE  
OF ITEM BIAS

(Circle One)

(Specify if YES)

1. Does the item contain any information that could be seen as offensive to the culture, race, or religion of target students?

YES NO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Does the item contain any information that could be seen as offensive to either sex group within the target population?

YES NO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Does the item include stereotypic depictions of any cultural, racial, or religious group that are debasing?

YES NO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Does the item include stereotypic depictions of either sex group that are debasing?

YES NO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Does the item portray cultural, racial, or religious groups as unequal in ability or natural endowment?

YES NO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Does the item portray sex groups as unequal in ability or natural endowment?

YES NO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Over)



II. ELIMINATING ELEMENTS  
THAT LEAD TO ITEM BIAS

(Circle One)

(Specify if YES)

7. Does the item contain clues or information that could be seen to work to the benefit or detriment of any cultural, racial, or religious group within the target population?

YES NO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Does the item contain clues or information that could be seen to work to the benefit or detriment of either sex group within the target population?

YES NO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. Does the item contain group-specific language or vocabulary (e.g., culture-related expressions or slang)?

YES NO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

III. SUGGESTED ITEM REVISIONS (Indicate the general nature of the revisions you feel are necessary to improve the item.)

## SCREENING FOR ITEM BIAS<sup>1</sup>

### I. Avoiding the Appearance of Bias

An item should not only be free of bias; it should avoid the appearance of bias, as well. Oftentimes, an item may be soundly constructed (mechanically correct, acceptable in form, and relevant to the skill) yet contain material seen to be an affront to members of certain cultural, racial, religious or sex groups. The offensive material may take several forms: debasing language, unfavorable stereotypic depictions, portrayal of groups as unequal in ability. While such material may not necessarily mean that the item is biased (i.e., that people of equal ability will perform differently on the item), the offending material is seldom pertinent to the skill being tested and, thus, only detracts from the integrity of the item as an unbiased measure of knowledge or skill. At worst, the offending material may produce negative reactions from those examinees affected, introducing an emotional component in their responses that is irrelevant and, possibly, even damaging to the true purpose of the item.

There exists no magic formula for detecting elements in an item that promote the appearance of bias. However, an affective approach to the problem is to have the items screened by judges who, by training or experience are alert to the presence of offensive elements. The following proscriptions are offered to assist the judges in the screening process:

1. The item should not contain any information that could be seen as offensive to the culture, race or religion of students within the target population.
2. The item should not contain any information that could be seen as offensive to either sex group within the target population.
3. The item should not include stereotypic depictions of any cultural, racial or religious group that are debasing.
4. The item should not include stereotypic depictions of either sex group that are debasing.
5. The item should not portray cultural, racial or religious groups as unequal in ability or natural endowments.
6. The item should not portray sexual groups as unequal in ability or natural endowments.

---

<sup>1</sup>The approach for examining item bias described herein is based on a system developed and validated by Dr. Robert A. Harms in his dissertation entitled: "A Comparative Concurrent Validation of Selected Estimators of Test Item Bias", University of South Florida, 1978.

## II. Eliminating Elements that Lead to Item Bias

An item may be considered biased if it causes certain individuals or groups to attain lower or higher scores than their ability suggests they are capable of attaining. A biased item, therefore, may work to the benefit of some individuals or groups and to the detriment of other individuals or groups. While test items may be afflicted with many types of biases, the biases of particular concern here are those that pertain to cultural, racial, religious and sexual groups.

Both experience and research have suggested that bias can, to a degree, be predicted from the presence of certain content characteristics within the item. That is to say, certain item content elements may be suspected of leading to depressed or inflated performance by groups differing in culture, race, religion, or sex. The most suspect item characteristics include the following: culture-related, race-related or sex-related clues or information; group-specific language or vocabulary.

As with the problem of the appearance of bias, there is no surefire method of eliminating all potentially biasing elements within an item prior to its use with the target students. However, as before, an approach that can significantly reduce bias in test items is to have the items screened by judges who by training or experience are alert to the presence of potentially biasing elements. The following proscriptions are offered to assist the judges in the screening process:

1. The content of the item should not contain any clues or information that could be seen to work to the benefit or detriment of any cultural, racial or religious group within the target population. (NOTE: This proscription applies to the item as a measure of the state-approved skill, not to the state-approved skill itself. The item is required to accurately represent the skill statement. Questions of bias regarding the skill statement itself are beyond the purpose of the screening panel.)
2. The content of the item should not contain any clues or information that could be seen to work to the benefit or detriment of either sex group within the target population. (NOTE: This proscription applies to the item as a measure of the state-approved skill, not to the state-approved skill itself. The item is required to accurately represent the skill statement. Questions of bias regarding the skill statement itself are beyond the purpose of the screening panel.)
3. Group-specific language or vocabulary (e.g., culture-related expressions or slang) should not be included in the item.

In examining an item in terms of each of the three proscriptions above, the item should be flagged if it violates the proscription in such a way that it seems probable to the reviewer that subsequent student performance on the item may be biased.



APPENDIX D  
VITAE OF KEY PROJECT PERSONNEL

## VITA

Tom D. Freijo

Name: Tom D. Freijo  
Address: 3408 Picwood Road, Tampa, Florida 33618  
Phone: (813) 935-0849  
Date of Birth: September 23, 1942  
Place of Birth: Tampa, Florida

### PROFESSIONAL PREPARATION

1965 A.A. - University of Florida  
1966 B.A. - University of Florida; Sociology  
1967 M.A. - University of Florida; Educational Research, Sociology  
1972 Ph.D. - University of Florida; Educational Research, Sociology  
Dissertation Topic: "Developing Research Skills for  
Educational Program Planning in  
Honduras: Process and Product."

### ACADEMIC AWARDS (UNIVERSITY LEVEL):

1. Joe Duran Memorial Scholarship
2. Carson-Newman College Freshman Scholarship
3. Undergraduate Research Training Stipend
4. Educational Research Training Fellowship

### ACADEMIC HONORARY FRATERNITIES:

1. Phi Beta Kappa (Liberal Arts)
2. Phi Kappa Phi (University Wide)
3. Phi Delta Kappa (Graduate Education)
4. Kappa Delta Pi (Education)
5. Alpha Kappa Delta (Sociology)

### PROFESSIONAL ORGANIZATIONS;

1. American Educational Research Association
2. Florida Educational Research Association
3. National Council on Measurement in Education

EMPLOYMENT EXPERIENCE

1962-63 Engineering Aide - City of Tampa, Florida

1963-64 Police Officer - City of Tampa, Florida

1968-69 Assistant Professor/Social Foundations Department, College of Education, University of South Florida

1969-71 Assistant Professor/Research Director, Honduras Project, University of South Florida

1971-72 Assistant Professor/Measurement-Research Department, College of Education, University of South Florida

1972-73 Assistant Professor/Coordinator Measurement-Research Area, College of Education, University of South Florida

1973-74 Assistant Professor/Measurement-Research Area, College of Education, University of South Florida

1974-75 Associate Professor/Measurement-Research Area, College of Education, University of South Florida

1975-79 Associate Professor/Director of Instructional Design and Evaluation Applications Center, College of Education, University of South Florida

1979 Professor/Measurement-Research Department, College of Education, University of South Florida

1979- Present President/Planning, Development & Evaluation Associates, Inc., Tampa, Florida



PUBLICATIONS - JOURNAL ARTICLES

Freijo, Tom, "La Evaluacion en el Desarrollo Educativo." Revista (published by The Escuela Superior del Profesorado, Tegucigalpa, D.C., Honduras) January 1969. pp. 37-38.

Jaeger, Richard M. and Freijo, Tom D., "Some Psychometric Questions in the Evaluation of Professors." Journal of Educational Psychology, Vol. 66. No. 3 June 1974. pp. 416-423.

Freijo, Tom, "Selecting Foreign Students -- Are GPA and Ratings Interchangeable as Criterion Variables?" Florida Journal of Education Research, Vol. 16, 1974. pp. 16-21.

Jaeger, Richard M., and Freijo, Tom D., "Sex and Race as Concomitants of Compound Halo in Teachers' Rating of Students." Journal of Educational Psychology, Vol. 67, No. 2. April 1975. pp. 226-237.

Freijo, Tom D., and Ward, Annie W., "A Case Study of the Development of a Career Education Achievement Test." Measurement and Evaluation in Guidance, Vol. 9, No. 2, July 1976. pp. 51-59.

Freijo, Tom D., and Jaeger, Richard M., "Social Class and Race as Concomitants of Composite Halo in Teachers' Evaluative Rating of Pupils." American Educational Research Journal, Vol. 13, No. 1, Winter, 1976. pp. 1-14.

PUBLICATIONS- TECHNICAL REPORTS

Freijo, Tom D., "Resultados del Cuestionario para Apreciar Las Actitudes de los Participantes Hondureños frente al Programa de Estudio en la Florida." Progress Report No. 4 of the Florida Consortium for Educational Development in Honduras. Tallahassee, Florida: State University System of Florida, July 1969, Annex C. 20 pp.

Freijo, Tom D., "Resultados del Cuestionario del Taller Pedagógico para el Desarrollo de Curriculum." Progress Report No. 4 of the Florida Consortium for Educational Development in Honduras. Tallahassee, Florida: State University System of Florida, October 1969. Annex D. 8 pp.

Freijo, Tom D., "Resultados de Una Evaluación de las Actitudes de Educadores Hondureños Frente al Instituto Comprensivo." Progress Report No. 6 of the Florida Consortium for Educational Development in Honduras. Tallahassee, Florida: State University System of Florida, January 1970. Annex E and F. 5 pp.

Freijo, Tom D., "Resultados del Estudio sobre el Taller Pedagógico de diciembre 1969 - enero 1970." Progress Report No. 7 of the Florida Consortium for Educational Development in Honduras. Tallahassee, Florida: State University System of Florida, April 1970. Annex N. 8 pp.

Freijo, Tom D., "Reporte de Asesoría - Equipo de Laboratorio." Progress Report No. 8 of the Florida Consortium for Educational Development in Honduras. Tallahassee, Florida: State University System of Florida, July 1970. Annex C. 18 pp.

Freijo, Tom D. and Peterson, Donovan, "Las Filosofías de un Grupo de Líderes Educativos en Honduras." Progress Report No. 8 of the Florida Consortium for Educational Development in Honduras. Tallahassee, Florida: State University System of Florida, July 1970. Annex F. 6 pp.

Freijo, Tom D., "Resultados de la Evaluación Sobre el Seminario de Educación Media Llevado a Cabo en San Pedro Sula." Progress Report No. 10 of the Florida Consortium for Educational Development in Honduras. Tallahassee, Florida: State University System of Florida, January 1971. Annex K. 18 pp.

Freijo, Tom D. and Coker, Dan, "El Resultado de un Programa de Entrenamiento a un Comité de curriculum a Nivel Local." Progress Report No. 11 of the Florida Consortium for Educational Development in Honduras. Tallahassee, Florida: State University System of Florida, March 1971. Annex J. 9 pp.

Freijo, Tom D., "Resultados de la Evaluación del Taller Pedagógico de Educación Media." Progress Report No. 11 of the Florida Consortium for Educational Development in Honduras. Tallahassee, Florida, March 1971. Annex R. 8 pp.

Freijo, Tom D. and Peterson, Donovan, "Las Filosofías Educativas de Un Grupo de Educadores Hondureños." Progress Report No. 11 of the Florida Consortium for Educational Development in Honduras. Tallahassee, Florida: State University System of Florida, March 1971. Annex U. 26 pp.

PUBLICATIONS - TECHNICAL REPORTS (Cont.)

Austin, Martha Lou and Freijo, Tom D., "Preliminary Follow-up Study of MA Reading Graduates at USF." Tampa, Florida: IDEA Center, 1975. 34 pp.

Freijo, Tom D., "Results of a Delphi Study to Generate Data for Establishing Recommendations of the Coordinating Council Development Project." Final Report--Florida Coordinating Council Development Project. Tampa, Florida: USF, December, 1976, Appendix C. 60 pp.

Freijo, Tom D. and Danenburg, William P., "Coordinating Council Development Project Product Evaluation Report." Final Report--Florida Coordinating Council Development Project. Tampa, Florida: USF, December, 1976, Appendix C. 15 pp.



PUBLICATIONS - FINAL PROJECT REPORTS

Anderson, E. Christian, et. al., Honduran Secondary Education Project Final Report. Tampa: University of South Florida, 1972. 85 pp.

Freijo, Tom D., Project CHOICE Final Evaluation Report. Tampa: University of South Florida, 1974. 425 pp.

Freijo, Tom D., Manatee County Career Education Evaluation -- Final Report. Tampa: University of South Florida, 1975. 93pp.

Freijo, Tom D., Sarasota County Career Education Evaluation -- Final Report. Tampa: University of South Florida, 1975. 126pp.

Freijo, Tom D. and Hall, Bruce W., Project CHICANO: Final Evaluation Report, 1975-76. Tampa: University of South Florida, 1976. 115pp.

Hall, Bruce W. and Freijo, Tom D., Project TOTS Final Evaluation Report, 1975-76. Tampa: University of South Florida, 1976.

Freijo, Tom D., External Review of the Coordinating Council Development Project. Tampa: University of South Florida, 1976. 41 pp.

Freijo, Tom D., Hillsborough County's Extended School Year Program: An Analysis of Test Results, Tampa, University of South Florida, 1976. 90pp.

Freijo, Tom D. and Hall, Bruce W., Project CHICANO Final Evaluation Report, 1976-77. Tampa: University of South Florida, 1977. 82 pp.

Hall, Bruce W. and Freijo, Tom D., Project TOTS Final Evaluation Report, 1976-77. Tampa: University of South Florida, 1977. 106 pp.

Freijo, Tom D., et. al., Hillsborough County Extended School Year Evaluation Final Report. Tampa: University of South Florida, 1977. 428 pp.

Freijo, Tom D. and Jolly, S. Jean, Humanities and the Environment Project Final Evaluation Report. Tampa: University of South Florida, 1977. 65 pp.

Freijo, Tom D. and Hilderbrand, John, Duval County Bilingual Education Program Final Evaluation Report. Tampa: University of South Florida, 1978. 126 pp.

Freijo, Tom D. and Hilderbrand, John A. Florida ESEA Title VII Technical Assistance Program Final Evaluation Report. Tampa: University of South Florida, 1978. 24 pp.

Freijo, Tom D. and West, William, Florida Minimal Writing Skills Test Development Project Final Report. Tampa: University of South Florida, 1978. 32 pp. + appendices.

PUBLICATIONS - FINAL PROJECT REPORTS (Cont.)

Freijo, Tom D., Hall, Bruce W., and Jolly, Sarah Jean. Polk County Title I Evaluation Final Report, 1977-78. Tampa: University of South Florida, 1978. 340 pp.

Freijo, Tom D. and Hall, Bruce W. Collier County Bilingual Education Project Final Product Evaluation Report. Tampa: University of South Florida, 1978. 18 pp.

Hall, Bruce W. and Freijo, Tom D. Collier County Title VII Bilingual Education Program Final Process Evaluation Report. Tampa: University of South Florida, 1978. 130 pp.

Freijo, Tom D.; Davies, Bill; Hall, Bruce W.; Heath, Kathryn K.; Katzenmeyer, William; Perez, JoEllen V. Louisiana Teacher Inservice Training Needs Assessment -- Fifth Congressional District. Tampa: University of South Florida, 1979. 267 pp.

Freijo, Tom D. and Perez, JoEllen V. Florida Basic Skills Item Development Project, Final Report. Tampa: University of South Florida, 1979. 30 pp.

Freijo, Tom D.; Dwyer, Robert; and Perez, JoEllen V. Florida Secondary Migrant Education Program Evaluation Project, Final Report. Tampa: University of South Florida, 1979. 83 pp.

Freijo, Tom D. and Kaney, Kathryn. Evaluation of the ESEA Title VII Technical Assistance Project in Florida, Final Report. Tampa: University of South Florida, 1979. 19 pp.

Freijo, Tom D. and Freijo, Kathryn K. Evaluation Plans for Florida's Four Follow Through Projects, Final Report. Tampa: University of South Florida, 1979. 49 pp.

Freijo, Tom D. and Freijo, Kathryn K. Critique of Specifications for Basic Skills Items - Florida's Statewide Student Assessment Program, Final Report. Tampa: University of South Florida, 1979. 20 pp.

Freijo, Tom D.; Perez, JoEllen V.; and Freijo, Kathryn K. Florida Statewide Student Assessment Test - Part II Item Development Project, Final Report. Tampa: University of South Florida, 1979. 105 pp.

PAPERS PRESENTED

"En Rol de la Investigación Educativa en el Desarrollo Educativo". National Seminar on Secondary Education, Honduras, December 1970.

"Las Calificaciones." Presented to various educational groups in Honduras, 1970.

"Evaluación en el Aula." Presented to various educational groups in Honduras, 1970.

"Elaborando Objetivos Educativos." National Curriculum Workshop, Honduras, January 1971.

"The Development of a Set of Behavioral Objectives for the Introductory Measurement Course." Florida Educational Research Association Convention, Tampa, January 1973.

Chaired a paper session "Varieties of Schoolings" at the Florida Educational Research Association Convention, Tampa, January 1973.

"The Development of a Career Education Achievement Test." Florida Educational Research Association Convention, Tallahassee, January 1974. (With Ruth Stiehl)

"Selecting Foreign Students -- Are GPA and Ratings Interchangeable as Criterion Variables?" Florida Educational Research Association Convention, Tallahassee, January 1974.

"Race and Sex as Concomitants of Teachers' Accuracy in Evaluative Rating of Students." American Educational Research Association Convention, Chicago, April 1974. (With Richard Jaeger)

"Evaluating Career Education Projects." Invited speech to the Statewide Conference of the Evaluation of Career Education. St. Petersburg, September 1974.

"Role Specific Perceptions of Educational Program Evaluation: The External Evaluator's Perceptions" Florida Educational Research Association Convention, St. Petersburg, January, 1975.

Chaired a paper session "Multivariate Analysis" at the Florida Educational Research Association Convention, St. Petersburg, January, 1975.

"The Evaluation of Career Education Projects." Invited Speech to the Florida Workshop on Career Education. Gainesville, Florida. February, 1975.

"Race and Socio-Economic Status as Concomitants of Teachers' Accuracy in Evaluative Rating of Students." American Educational Research Association Convention, Washington, D.C. April, 1975. (With Richard Jaeger).



PAPERS PRESENTED (cont.)

Served as Discussant in a paper session, "Career Education and Vocational Education: Issues, Procedures and Results." Florida Educational Research Association Convention, Orlando, January, 1976.

"The Effects of Research Versus Operational Use Instructions on the Psychometric Characteristics of Resultant Ratings." Florida Educational Research Association Convention, St. Petersburg, January, 1977. (With Cliff Blair and Steve Klesius)

"An Examination of Patterns of Performance by Race and Sex In Early School Achievement and Self Concept Measures." Florida Educational Research Association Convention, St. Petersburg, January, 1977. (With Bruce Hall and Cliff Blair)

"The Hillsborough County Extended School Year Program--An Application of the PPVI Evaluation Model." Symposium chairperson and presenter. Florida Educational Research Association Convention, Daytona Beach, January, 1978. (With John Hilderbrand, Jean Jolly, Bruce Hall, and Annie Ward Hall)

"Contributions of Process Evaluation to Quality Control in ESEA Title I Projects." Florida Educational Research Association Convention, Daytona Beach, January, 1978.

"The Development of Writing Skills Instruments for the Florida State Assessment Program." Invited speech to a state conference of curriculum supervisors sponsored by Florida DOE. Gainesville, Florida, April, 1978.

"The Need for Comprehensive Program Evaluation in Florida's Compensatory Education Program." Invited speech to a South Florida Planning Council Conference on Compensatory Education, June, 1978.

"Positive and Negative Possibilities of State Assessment." Invited speech at the Arkansas Teachers of English Annual Conference. Conway, Arkansas, June, 1978.

"Comprehensive Program Evaluation in Education, With Examples from ESEA Title I." Invited speech at Florida Mental Health Institute's Regional Conference on Planning and Evaluating Mental Health and Human Service Programs. Tampa, September, 1978.

"Evaluating In-Service Training Programs." Invited speech at the Fourth Annual Florida Staff Development Directors' Conference. St. Petersburg, Florida, September, 1978.

"Florida's Written Composition Assessment Test." Invited paper presentation to the Florida Council of Teachers of English Annual Convention. Miami Beach, Florida, October, 1978.

PAPERS PRESENTED (cont.)

"The Development and Validation of Florida's Minimal Writing Skills Tests and Scoring Procedures." Florida Educational Research Association Convention, Daytona Beach, January, 1979.

"An Evaluation of An Extended School Year Program -- An Application of the PPVI Evaluation Model." American Education Research Association Convention, San Francisco, April, 1979.

GRANTS RECEIVED

- 1973 - Evaluation of Project CHOICE (Career Education), Pasco County School Board, \$14,500 -- Sole investigator
- 1974 - Evaluation of Manatee County Career Education Project, Manatee County School Board, \$6,000 -- Sole investigator
- 1974 - Evaluation of Project CHOICE (Second year implementation) Pasco County School Board, \$14,500 -- Sole investigator
- 1974 - Evaluation of Sarasota County Career Education Project, Sarasota County School Board, \$6,400 -- Sole investigator
- 1975 - Evaluation of Project CHICANO (Bilingual Education), Pasco County School Board, \$3,500 -- Principal investigator
- 1975 - Evaluation of Project TOTS (Title I Reading), Pasco County School Board, \$4,500 -- Second investigator
- 1976 - Evaluation of Project CHICANO (Second year), Pasco County School Board, \$4,000 -- Principal investigator
- 1976 - Evaluation of Project TOTS (Second year), Pasco County School Board, \$6,000 -- Second investigator
- 1976 - Analysis of Test Results for Hillsborough County's Extended School Year Program, Hillsborough County School Board, \$1,000 -- Sole investigator
- 1976 - Evaluation of Humanities and the Environment Project (National Endowment for the Humanities), New College, \$2,500 -- Principal investigator
- 1977 - Evaluation of Hillsborough County's Extended School Year Program, Hillsborough County School Board, \$17,000 -- Principal investigator
- 1977 - Evaluation of Polk County's Title I Program, Polk County School Board, \$9,990 -- Principal Investigator
- 1977 - Development of Writing Items for the Florida State Assessment Program, Florida DOE, \$24,188 -- Project Director
- 1977 - Evaluation of Collier County Bilingual Education Project, Collier County School Board, \$4,000 -- Principal Investigator
- 1977 - Development of Criterion-Referenced Instruments for Hillsborough County's Testing Program, Hillsborough County School Board, \$5,500 -- Project Director
- 1978 - Evaluation of the University of Miami's Title VII Master's Degree Program in Bilingual Education, University of Miami, \$3,800 -- Co-evaluator
- 1978 - Evaluation of Duval County's Bilingual Education Project, Duval County School Board, \$3,400 -- Principal Investigator



GRANTS RECEIVED (Cont.)

- 1978 - Evaluation of Florida's ESEA Title VII Technical Assistance Program, Florida DOE, \$3,500 -- Principal Investigator
- 1978 - Evaluation of Polk County's ESEA Title I Program, Polk County School Board, \$11,495 -- Principal Investigator
- 1978 - Evaluation of Collier County's ESEA Title VII Bilingual Education Project, Collier County School Board, \$4,000 -- Principal Investigator
- 1978 - Scoring and Analysis of Florida's Minimal Writing Skills Assessment Results, Florida DOE, \$28,113 -- Project Director
- 1978 - Development of Basic Skill Items for Florida's State Assessment Program, Florida DOE, \$16,214 -- Project Director
- 1978 - Louisiana Teacher In-Service Training Needs Assessment, Louisiana DOE, \$20,000 -- Project Director
- 1979 - Florida Secondary Migrant Education Program Evaluation Project, Florida DOE, \$45,000 -- Project Director
- 1979 - Item Development for Florida's SSAT-II Tests, Florida DOE, \$34,000 -- Project Director
- 1979 - Evaluation of the ESEA Technical Assistance Project in Florida, Florida DOE, \$2,500 -- Project Director
- 1979 - Development of Evaluation Plans for Florida's Follow Through Projects, Florida DOE, \$4,500 -- Project Director
- 1979 - Evaluation of Project OUNCE, Sarasota County School System, \$6,000 -- Project Director
- 1979 - Basic Skills Item Specifications Reviews/ SLD Test Modifications Project, Florida DOE, \$17,000 -- Project Director
- 1979 - Nutrition Education Needs Assessment Project, Florida DOE, \$87,000 -- Project Director

MAJOR PAID CONSULTANCIES

- 1969 - Consultant to the Honduran government on the development of educational behavioral objectives (3 days).
- 1969 - Consultant to the Honduran government on the development of an educational data base system (3 days).
- 1972 - Consultant to the Honduran Teacher Training College on the Validation of admission tests (10 days).
- 1972 - Consultant to Nova University on the Development of an Evaluation Model for external Ed.D. Programs. Developed a 35 page proposal. (With Richard Jaeger) (3 days).
- 1973 - ESEA - Title III Auditor for the State of Florida. Audited "Individualized Spanish for English Speakers" project (4 days).
- 1973 - Consultant to Hillsborough Community College on the Development of an accountability plan. (With Richard Jaeger) (1 day).
- 1974 - Consultant to the Sarasota County Public School System to develop an evaluation plan for their Career Education Project (3 days).
- 1974 - ESEA - Title III Auditor for the State of Florida. Audited the second year operation of the "Individualized Spanish for English Speakers" project (4 days).
- 1974 - Evaluation consultant for the Leadership Training Institute's national workshop on the evaluation of Protocol Materials (Denver) (3 days).
- 1974 - Consultant to the Manatee County Public School System to develop an evaluation plan for their Career Education Project (4 days).
- 1974 - Consultant to Manatee Junior College to develop an evaluation plan for their Career Education Project (4 days).
- 1974 - Consultant to the Florida DOE to help plan a state-wide evaluation conference for career education project directors (1 day).
- 1974 - Consultant to the Polk County Public Schools on the evaluation of their career education project (4 days).
- 1975 - Consultant to the Pasco County Public Schools to develop an evaluation plan for a proposed Bilengual Education project (2 days).
- 1975 - ESEA Title III Auditor for the State of Florida. Audited "Childrens' Concerns; A Curriculum Base" project (4 days).
- 1977 - Consultant to Florida DOE on the evaluation of a Title VII Technical Assistance Project (5 days).
- 1977 - Consultant to Florida DOE on the evaluation of a Title VII Teacher Training (M.Ed.) Program (3 days).

MAJOR PAID CONSULTANCIES (Cont.)

- 1978 - Consultant to Hillsborough County School System on the evaluation of a Compensatory Education Program (10 days).
- 1978 - Consultant to Arkansas Department of Education on issues related to State Assessment (3 days).



VITA

Kathryn Kaney Freijo

Name: Kathryn Kaney Freijo  
Address: 3408 Picwood Road, Tampa, Florida 33618  
Phone: (813) 935-0849  
Date of Birth: November 17, 1945  
Place of Birth: Reidsville, Georgia

PROFESSIONAL PREPARATION

1967 B.A. - Florida State University; English  
1972 M.A. - University of North Carolina; Classics  
1976 M.A. - Stetson University; English

ACADEMIC HONORARY FRATERNITIES

Phi Beta Kappa (Liberal Arts)

PROFESSIONAL ORGANIZATIONS

1. National Council of Teachers of English
2. Florida Council of Teachers of English
3. Association for Supervision and Curriculum Development
4. Florida Association for Supervision and Curriculum Development

EMPLOYMENT EXPERIENCE

1968-71 Teacher, English and Humanities, Melbourne High School  
1968-71 Instructor, Humanities (part-time), Brevard Community College  
1967-75 (Summer) - Liaison for American Students in Western Europe, Paris, France  
1972-76 Teacher, English, Melbourne High School  
1976 Aide, Commissioner Paula Hawkins, Tallahassee, Florida  
1977-79 Consultant, Secondary Language Arts and Humanities, Florida Department of Education  
1979 Vice President for Program Development, Planning, Development & Evaluation Associates, Inc., Tampa, Florida

EMPLOYMENT EXPERIENCE

- 1968-71 Teacher, English and Humanities, Melbourne High School
- 1968-71 Instructor, Humanities (part-time), Brevard Community College
- 1967- (Summer) - Liaison for American Students in Western Europe, Paris, France
- 1972-76 Teacher, English, Melbourne High School
- 1977-79 Consultant, Secondary Language Arts and Humanities, Florida Department of Education
- 1979 Vice President for Program Development, Planning, Development & Evaluation Associates, Inc., Tampa, Florida

PROFESSIONAL ACTIVITIES

Curriculum Design:

Consultant to Canadian Maritime Provinces Secondary Public Schools Curriculum Development Project, 1973-75.

Consultant for language arts curriculum revision in Okaloosa County, Florida, 1977.

Coordinator of Florida Department of Education contracts with three (3) Florida school districts to develop remediation materials for use in all Florida school districts, 1977-78.

Consultant for language arts curriculum revision in Columbia County, Florida, 1978.

Consultant for language arts curriculum revision in Marion County, Florida, 1978.

Consultant for language arts curriculum revision in Polk County, Florida, 1978.

Consultant for language arts curriculum revision in Lafayette County, Florida, 1978.

Consultant for language arts curriculum revision in Gulf County, Florida, 1978.

Consultant for language arts curriculum revision and development in Jefferson County, Florida, 1978.

Consultant for language arts curriculum revision and development in Madison County, Florida, 1978.

Consultant for Columbia County Public Schools Scope and Sequence Development Project, 1978.

Program Coordinator, Department of Education Basic Skills Curriculum Conference, Gainesville, Florida, 1978.

Consultant for Jackson County Public Schools Scope and Sequence Development Project, 1978-79.

Consultant for language arts curriculum revision in Gadsden County, Florida, 1979.

Consultant for language arts curriculum revision in Martin County, Florida, 1979.

Consultant for language arts curriculum revision in Palm Beach County, Florida, 1979.

Consultant for language arts curriculum revision in Hamilton County, Florida, 1979.



Consultant for language arts curriculum revision in Alachua County, Florida, 1979.

Program Coordinator, Department of Education Middle and Secondary Education Conference - Language Arts Division, 1979.

Program Evaluation:

Principal Developer: Florida Department of Education's Middle and Secondary Education Program Evaluation Criteria, 1977."

Principal Developer: Florida Department of Education's Middle and Secondary Education Program Evaluation Model: An Integrated Process-Product Analysis, 1977.

Leader for selected pilot trials of the Florida Department of Education's Middle and Secondary Education Program Evaluation Model, 1977-78.

Language Arts Reading Specialist for Middle and Secondary Education Program Review in Polk County, Florida, 1978.

Language Arts Reading Specialist for Middle and Secondary Education Program Review in Lafayette County, Florida, 1978.

Language Arts Reading Specialist for Middle and Secondary Education Program Review in Gulf County, Florida, 1978.

Language Arts Reading Specialist for Middle and Secondary Education Program Review in Martin County, Florida, 1979.

Language Arts Reading Specialist for Middle and Secondary Education Program Review in Hamilton County, Florida, 1979.

Language Arts Reading Specialist for Middle and Secondary Education Program Review in Alachua County, Florida, 1979.

Language Arts Reading Specialist for Middle and Secondary Education Program Review in Gadsden County, Florida, 1979.

Language Arts Reading Specialist for Middle and Secondary Education Program Review in Palm Beach County, Florida, 1979.

Consultant to Project Director, Evaluation of ESEA Title I: Polk County, Florida, 1979.

Consultant/Evaluator, Evaluation of the ESEA Title VII Technical Assistance Project in Florida, 1979.

Consultant/Evaluator, Evaluation of Project OUNCE, 1979.

Consultant, Study to Determine the Special Educational Needs of Florida's Secondary-Level Migratory Students, 1979.

Project Consultant, Development of Evaluation Plans for Florida's Four Follow Through Projects, 1979.

Related Presentations:

Presentation to Secondary English Department Chairpersons:  
"Evaluating Effectiveness in Public School Language Arts  
Programs," FCTE Conference, Miami Beach, 1978.

Presentation to Pasco County Language Arts Teachers, K-12:  
"Implications of Florida's 1978 Minimum Production Writing  
Skills Assessment for Designing Writing Curricular in Public  
Schools in Florida," Land-O-Lakes, 1979.

Presentation to Florida school district Accountability  
Coordinators: "Florida's Middle and Secondary Education  
Program Evaluation Procedures," Orlando, 1978.

Presentation to Joint House and Senate Appropriations  
Committee, the Florida Legislature: "Indications from  
selected piloting of Florida's Middle and Secondary Education  
Program Evaluation Model," Tallahassee, 1978.

Presentation to candidates for Masters Degrees in Education  
at Florida Atlantic University: "Competency Testing and  
Program Evaluation," Ft. Pierce, 1978.

Test Design and Review:

Language Arts Consultant for Reviews of Test Items for the 1977  
Administration of Florida's Statewide Student Assessment Test -  
Part I.

Language Arts Consultant for Reviews of Test Items for the 1977  
Administration of Florida's Statewide Student Assessment Test -  
Part II.

Language Arts Consultant for Reviews of Test Items for the 1978  
Administration of Florida's Statewide Student Assessment Test -  
Part I.

Language Arts Consultant for Reviews of Test Items for the 1978  
Administration of Florida's Statewide Student Assessment Test -  
Part II.

Department of Education Language Arts Consultant for the development  
of Florida's Minimum Production Writing Skills Assessment, 1977-78.

Department of Education Language Arts Consultant for the development  
of scoring procedures for Florida's Minimum Production Writing  
Skills Assessment, 1978.

Language Arts Consultant for Reviews of Florida's Minimum Student  
Performance Standards and Skills for 1981-85.

Project Consultant, Development of Items for Florida's Statewide  
Student Assessment Test, Part II, 1979.

Project Coordinator, Critique of Basic Skills Item Specifications for Florida's Statewide Student Assessment Program, 1979.

Project Director, Development of Items for Florida's Statewide Student Assessment Test - Part I, 1979 (in progress).

Co-director, project to design a series of test instruments to assess nutrition knowledge, attitudes and habits of students, teachers, and school food service personnel.

Related Presentations:

Presentation to Hillsborough County Secondary English Teachers: "The Curriculum Implications of Minimum Competency Testing in Florida," 1977.

Presentation of Orange County Council of Teachers of English: "The Curriculum Implications of Minimum Competency Testing in Florida," 1978.

Presentation to Doctoral Candidates in Reading at Florida State University: "Florida's Minimum Production Writing Skills Assessment: Procedures and Results," 1979.

Presentation to joint English and English Education faculties at Florida State University, Florida A & M University and Tallahassee Community College: "Rationale for Selecting an Analytical Scoring Procedure for Florida's Minimum Production Writing Skills Assessment," 1978.

Presentation to Doctoral Candidates in Measurement and Research at the University of South Florida: "The Development of Florida's Minimum Production Writing Skills Assessment and Associated Scoring Procedures," 1979.

PAPER PRESENTATIONS

"The Basic Skills Movement in America: A Perspective on Public Education in the 80's," the Escambia County Council of Teachers of English, December, 1978.

"Florida's Minimal Writing Skills Test: Curriculum Implications," Florida Educational Research Association Annual Conference, Daytona Beach, January, 1979.

"Assessing Reading and Writing Skills: The Florida Department of Education Perspective," Conference on Integrating the Teaching of Reading and Writing, University of Florida, May, 1979.

OTHER SPEECHES AND INVITED PRESENTATIONS

"The Future of Education in America: The Eighth Decade," American Association of University Women, Brevard County, Melbourne, January, 1978.

"The Influence of Classload on the Teaching of Composition," Senate Education Committee, the Florida Legislature, Tallahassee, April, 1978.



"Categorizing Students: Aid and Hazard in Addressing Student Need,"  
Florida Association for Supervision and Curriculum Development,  
Daytona Beach, Spring, 1978.

#### PUBLICATIONS - BOOKS

Heath, Kathryn Kaney, Surreal Vision: The Metaphor of Philip Lamantia, City Lights, 1977.

#### PUBLICATIONS - ARTICLES

Heath, Kathryn, "The Implications of Florida's Accountability Legislation in Florida's Classrooms." FCTE Newsletter, Vol. 27, No. 2, 1977.

Heath, Kathryn, "Review of the 1977-78 8th and 11th Grade Statewide Student Assessment Results in Communications." FCTE Newsletter, Vol. 28, No. 1, 1978.

#### PUBLICATIONS - TEST INSTRUMENTS

Perez, JoEllen V.; Freijo, Tom D.; Freijo, Kathryn Kaney. Nutrition Education Assessment Series, Tampa: Planning, Evaluation and Development Associates, Inc., 1979.

#### PUBLICATIONS - FINAL PROJECT REPORTS

Freijo, Tom D.; Davies, Bill; Hall, Bruce W.; Heath, Kathryn K.; Katzenmeyer, William; Perez, JoEllen V. Louisiana Teacher Inservice Training Needs Assessment --Fifth Congressional District, Tampa: University of South Florida, 1979.

Freijo, Tom D. and Kaney, Kathryn. Evaluation of the ESEA Title VII Technical Assistance Project in Florida, Final Report, Tampa: University of South Florida, 1979.

Freijo, Tom D.; Freijo, Kathryn Kaney. Evaluation of Project OUNCE, Tampa, University of South Florida, 1979.

Freijo, Tom D.; Freijo, Kathryn Kaney. Critique of Specifications for Basic Skills Items, Florida's Statewide Student Program, Tampa: University of South Florida, 1979.

Freijo, Tom D.; Freijo, Kathryn Kaney. Evaluation Plans for Florida's Four Follow Through Projects, Tampa: University of South Florida, 1979.

Freijo, Tom D.; Hall, Bruce; Jolly, Sarah Jean; Freijo, Kathryn Kaney. Polk County ESEA Title I Project Final Evaluation Report, Tampa: University of South Florida, 1979.

Freijo, Tom D.; Perez, JoEllen V.; Freijo, Kathryn Kaney. Florida's Statewide Student Assessment Test - Part II Item Development Project, Tampa: University of South Florida, 1979.

Freijo, Tom D.; Freijo, Kathryn Kaney; Perez, JoEllen V. Florida Nutrition Education Needs Assessment; Tampa: Planning, Development & Evaluation Associates, Inc., 1979.

PROFESSIONAL VITA  
JOELLEN VARSALONA PEREZ

PERSONAL:

Home Address: 520 Herchel Drive  
Temple Terrace, Florida 33617

Office Address: PDE Associates, Inc.  
P.O. Box 17288  
Tampa, Florida 33682

Telephone: (813) 985-2906 (home)  
(813) 932-3558 (office)

Date of Birth: December 12, 1948

EDUCATION:

1969, B.A., Exceptional Child Education, University of South Florida

1972, M.A., Exceptional Child Education, University of South Florida

1975, Admitted to Candidacy for Ph.D. Degree in Education, Emphasis  
in Urban Educational Research, further specialization in Exceptional  
Child Education

AWARDS:

State of Florida, Scholarship for Undergraduate Studies in Exceptional Child  
Education, September 1968 - December 1969

State of Florida, Summer Traineeship for Graduate Studies in Exceptional  
Child Education, Summer 1970



PROFESSIONAL EXPERIENCE:

Teacher, High School EMH Class, Hillsborough County, Florida, January 1970 - December 1972

Graduate Teaching Assistant, University of South Florida, September 1973 - July 1975

Courses Taught:

Procedures and Materials for Elementary Age Educable Mentally Retarded Children

Procedures and Materials for Secondary Age Educable Mentally Retarded Youth and Adults

Supervised Teaching

Senior Seminar in Education

Supervisor of Field Experience, Behavior Management Course, Summer 1974

Editorial Assistant, Journal of Educational Measurement, May 1975-September 1976

Research Associate, College of Education, University of South Florida, September 1976 - June 1978

Adjunct Instructor, Exceptional Child Education, University of South Florida, Quarter II, 1977

Visiting Instructor, Curriculum & Instruction, Elementary Education, University of South Florida, Quarter II, 1978

Assistant to Director, IDEA Center, College of Education, University of South Florida, August 1978 - June 1979

Vice President for Administration, Planning, Development & Evaluation Associates, Inc., May 1979 - present

PAPERS PRESENTED:

Perez, J. V., Babb, J., Rapp, M. B., & Stiehl, R. An investigation of the relationships between changes in personal/social behaviors and changes in academic performances exhibited by sixth-grade pupils as perceived by their teachers. Paper presented at the XIV annual conference of the Florida Educational Research Association, St. Petersburg, Florida, January 1975.

Perez, J. V., & Ward, A. W. Academic competencies and evaluations of college experiences, College of Education interns. Paper presented at the XVII annual conference of the Florida Educational Research Association, Daytona Beach, Florida, January 1978.

RESEARCH PAPERS COMPLETED:

Perez, J. V. Curriculum needs and teacher competencies for secondary educable mentally retarded students. Unpublished manuscript, University of South Florida, 1973.

Perez, J. V. Curriculum needs of secondary EMR students: A survey of teacher attitudes. Unpublished manuscript, University of South Florida, 1973.

Perez, J. V., Johnson, J., Kalinowski, F. S., II, & Silverman, H. Comparison of social tolerance of emotionally disturbed individuals expressed by special education teacher-trainees and by regular education teacher-trainees. Unpublished manuscript, University of South Florida, 1974.

Perez, J. V., Iachini, S., & Babb, J. A multivariate procedure for predicting students' learning styles in mathematics. Unpublished manuscript, University of South Florida, 1978.

TECHNICAL REPORTS COMPLETED:

"Academic competencies, evaluation of college experiences and internship supervision, College of Education graduating seniors, Quarters III and IV, 1976." Tampa, Florida: University of South Florida College of Education. September 1976, 200 pp.

"Academic competencies, evaluation of college experiences and internship supervision, College of Education graduating seniors, Quarter I, 1976." Tampa, Florida: University of South Florida College of Education, January 1977, 175 pp.

"Academic competencies, evaluations of college experiences and internship supervision, College of Education graduating seniors. Quarter II, 1977." Tampa, Florida: University of South Florida College of Education, April 1977, 150 pp.

"Academic competencies, evaluation of college experiences and internship supervision, College of Education graduating seniors, Quarter III, 1977." Tampa, Florida: University of South Florida College of Education, September 1977, 225 pp.

"Academic competencies, evaluations of college experiences and internship supervision, College of Education graduating seniors, Quarter I, 1977." Tampa, Florida: University of South Florida College of Education, January 1978, 200 pp.

"Evaluations of college experiences and internship supervision, College of Education graduating seniors, Quarter II, 1978." Tampa, Florida: University of South Florida College of Education, April 1978, 200 pp.



FINAL PROJECT REPORTS:

Freijo, T. D., Davies, B., Hall, B., Heath, K., Katzenmeyer, W., & Perez, J. Louisiana teacher inservice training needs assessment, Fifth Congressional District. Final Report. Tampa, Florida: February 15, 1979. 292 pp.

Freijo, T. D., & Perez, J. V. Florida Minimal Writing Skills Assessment, 1978-79: Scoring and reporting project. Final Report. Tampa, Florida: University of South Florida, March 1979. 124 pp.

Freijo, T. D., & Perez, J. V. Florida basic skills item development project. Final Report. Tampa, Florida: University of South Florida, March 1979. 41 pp.

Freijo, T. D., Dwyer, R. C., & Perez, J. V. Florida secondary migrant education program evaluation project: Final report. Tampa, Florida: University of South Florida, June 1979. 86 pp.

Perez, J. V., Freijo, T. D. Study of procedural adaptations and format modifications in testing learning disabled students. Final report. Tampa, Florida: University of South Florida, October 1979. 65 pp.

Freijo, T. D., Perez, J. V., & Freijo, K. K. Florida Statewide Student Assessment Test - Part II, Item development project. Final report. Tampa, Florida: University of South Florida, November 1979. 124 pp.

Freijo, T. D., Perez, J. V., Freijo, K. K., & MacDonald, D. Florida Nutrition Education Needs Assessment. Final Report. Tampa, Florida: Planning, Development & Evaluation Associates, Inc., December 1979.

FUNDED PROJECT ACTIVITY:

- 1978 - Development of Writing Production Tests and Associated Scoring Procedures for Florida's Statewide Assessment Program. Fieldtest Coordinator
- 1978 - Scoring and Reporting of Results of Florida's Minimal Writing Skills Assessment, 1978-79. Project Administrator
- 1978 - Development of Basic Skills Test Items for Florida's Statewide Assessment Program. Project Coordinator
- 1978 - Louisiana Teacher Inservice Training Needs Assessment, Fifth Congressional District. Measurement/Evaluation Specialist
- 1979 - Study to Determine the Special Educational Needs of Florida's Secondary-level Migratory Students. Project Coordinator
- 1979 - Development of Functional Literacy Test Items for Florida's Statewide Assessment Program, SSAT-II. Project Administrator
- 1979 - Study of Procedural Adaptations and Format Modifications in Testing Learning Disabled Students, Florida's Statewide Assessment Program. Project Coordinator
- 1979 - Needs Assessment for Nutrition Education in Florida, 1978-79. Project Coordinator
- 1980 - Development of Basic Skills Test Items for Florida's Statewide Assessment Program. Pilot Test Coordinator

PUBLICATIONS:

Perez, J. V., Freijo, T. D., & Freijo, K. K. Nutrition Education Assessment Series. Tampa, Florida: PDE Associates, Inc., 1979



CONSULTING:

Pasco County Schools, Evaluation of 45-15 Plan, Analysis of Survey Questionnaire Responses, Summary 1974

South Florida Regional Teacher Education Center, Coordination and Writing, proposal submitted for Federal funding, Spring 1978

Hillsborough County Schools, Investigation of Career Information Delivery System for Students Entering Tampa Bay Vocational/Technical School-- Interviewing, Development and Administration of Survey Questionnaire, Data Analysis and Reporting, Spring 1978

Lee County Schools, Teacher Education Center, Presentation of a model for collection and use of data in decision making, Winter 1978

OTHER PROFESSIONAL ACTIVITIES:

Chairperson, committee to draft by-laws for Association of Doctoral Students of Exceptional Child Education, College of Education, University of South Florida, 1975

Member, committee to review proposals submitted for possible paper presentation at the XV annual conference of the Florida Educational Research Association, 1975

Chairperson, Program Committee, Association of Doctoral Students of Exceptional Child Education, College of Education, University of South Florida, 1975-1976

Member, Advanced Graduate Advisory Committee, College of Education, University of South Florida, 1975-1976

Member, Nominating Committee, Florida Educational Research Association, 1976-1977

Member, Policy Committee, Exceptional Child Education, College of Education, University of South Florida, 1976-1977

Member, Accreditation Evaluation Team, Booker-Bay Haven School, Sarasota, Florida, Fall 1977

PROFESSIONAL MEMBERSHIPS:

American Association on Mental Deficiency (AAMD)

American Educational Research Association (AERA)

Council for Exceptional Children (CEC)

Council for Exceptional Children, Division on Mental Retardation (CEC-MR)

Florida Educational Research Association (FERA)

National Council on Measurement in Education (NCME)



V I T A

NAME: Stanley Bernknopf  
ADDRESS: 2863 Suffolk Court, Marietta, Ga., 30062  
PHONE: Home: (404) 973-2133  
Office: (404) 656-2661  
DATE & PLACE OF BIRTH: December 16, 1944, Brooklyn, New York

Education: 1975 - University of Georgia, Athens, Georgia  
Ed.D. in Measurement, Evaluation and  
Statistical Analysis  
1972 - The City University of New York  
New York, New York  
M.B.A. in Industrial Psychology  
1971 - The City University of New York  
New York, New York  
B.B.A. in Industrial Psychology

PROFESSIONAL POSITIONS:

9/78 - Present Coordinator, Student Assessment; Georgia State  
Department of Education.

Responsibilities involve the administration,  
development and coordination of the Georgia  
Statewide Assessment Program, grades K-12.

7/77 - 8/78 Director; Counselor Education Project, ESEA  
Title IV. (Funded through the Georgia State  
Department of Education).

Principal Function of the project was to  
develop a performance-based model for the certifi-  
cation of school counselors in Georgia.  
Responsibilities involved overall supervision of  
efforts aimed at producing products and procedures  
which led to the identification and assessment of  
essential knowledge competencies; identification  
and assessment of essential performance competen-  
cies; and development of training modules.

8/74 - 6/77 Evaluation/Research Specialist; Counselor  
Education Project, ESEA Title IV. (Funded  
through the Georgia State Department of Education).

Responsibilities involved developing systema-  
tic methods for the assessment of counselor  
competencies and evaluation procedures aimed at  
measuring the effectiveness of the project.

- Principal responsibilities during this period was the development of a criterion-referenced test, as part of the procedures for certification of school counselors in Georgia.
- 6/74 - 8/74 Teaching Assistant, University of Georgia, Department of Educational Psychology.
- Taught ERS 601, a graduate course in "Methods of Research in Education." The course deals with research skills and related competencies involved in the planning, conducting and reporting of applied research.
- 3/74 - 7/74 Research Assistant, University of Georgia, Educational Research Lab. - Internship.
- Consulting on statistical analysis and research design to faculty, staff and graduate students at the University of Georgia. Instruction in and use of computer program language (FORTRAN IV). Use of several prespecified computer programmed packages (BMD, DATA TEXT, etc.) in performing data analysis activities.
- 1970 - 1972 Research Assistant, The City University of New York, Division of Teacher Education.
- Responsibilities involved supervision of collection, coding, tabulation and analysis of data. Other duties involved testing and write-up of research findings.\*
- 1968 - 1970 Research Assistant, The City University of New York Research and Evaluation Unit.
- Responsibilities involved the design of research supervision and coordination of data collection, establishment of coding procedures to conform with analysis and reporting requirements.\*
- \*(Principal function of both units have been to provide comprehensive research and analysis of all aspects of special university programs for the underprivileged or "culturally deprived.")

PART-TIME POSITIONS:

- 9/75 - 6/78 Instructor, Brenau College, Gainesville, Georgia
- Taught graduate courses in "Educational Psychology" and "Educational Research."

12/75 - Present

Instructor, University of Georgia, Athens, Ga.

Taught graduate courses in Applied Statistics as part of the University's In-Service Teacher Education Program.

PUBLICATIONS:

Master's Thesis

Prediction of College Academic Performance, Special Education Program Students vs. Regular Matriculants using Stepwise Multiple Regression Analysis.

Doctoral Dissertation

An Investigation of Criterion-Referenced Tests Under Different Conditions of Sample Variability and Item Homogeneity. (Under the Direction of Dr. W. L. Bashaw and Dr. David A. Payne)

Developing a Needs-Based Guidance System: A Psychometric Approach. Journal of Measurement and Evaluation in Guidance Vol. 8, No. 3, October, 1975. 180-186.

Bernknopf, S. & Hartley, D. Development of a student oriented needs-based guidance system. ERIC Clearinghouse Document System.

Bernknopf, S. & Bashaw, W. L. An investigation of criterion-referenced tests under different conditions of sample variability and item homogeneity. ERIC Clearinghouse Document System. ED 120205

Pioneer CESA Guidance Project, a series of seven staff development in-service training modules. ERIC/CAPS Clearinghouse System, ED153102 (RIE, September 1978).

Performance Based Counselor Certification. ERIC/CAPS Clearinghouse, ED155558 (RIE, November 1978).

Toward Performance-Based Counselor Certification. Journal of Counselor Education and Supervision. Volume 18, Number 4, June 1979, 294 - 303.

A Defensible Model for Determining a Minimal Cut-Off Score for Criterion-Referenced Tests. ERIC Clearinghouse Document System. ED 177194; TM009687 (RIE, February 1980).



## PRESENTATIONS AT NATIONAL AND LOCAL MEETINGS

The State of the Art: Criterion-Reference Measurement. Paper presented at the annual meeting of the Florida Psychological Association. Orlando; November, 1974.

A Psychometric Approach to the Development of a Student Oriented Needs-Based Guidance System. Paper presented at the annual meeting of the Mid-South Educational Research Association. New Orleans; November, 1974.

The Development of a Student Oriented Needs-Based Guidance System. Paper presented at the annual meeting of the Southeastern Invitational Conference on Measurement in Education. Knoxville; December, 1974.

The Development of a Model Comprehensive Needs-Based Guidance System and Modular Instructional Strategies. Paper presented at the annual meeting of the American Personnel and Guidance Association. New York; March, 1975.

The Use of Demographic Information and Psycho-educational Instrumentation for the Purpose of Predicting Programmatic Variables. Georgia CEC, Augusta, Ga., 1975.

An Investigation of Criterion-Referenced Tests Under Different Conditions of Sample Variability and Item Homogeneity. Paper presented at the annual meeting of the American Educational Research Association. San Francisco; April, 1976.

Identification of Competencies for School Counselor: Process and Product. Paper presented at the annual meeting of the Georgia School Counselor Association, Atlanta, Ga. November, 1976.

Issues Surrounding Competency Based Education - Certification. Paper presented at the annual meeting of the Georgia Personnel and Guidance Association, Atlanta, January 1977.

Competency Based Counselor Education - Certification: The Process and the Outcome. Paper presented at the annual meeting of the American Personnel and Guidance Association. Dallas, Texas, March, 1977.

Competency Based Counselor Education - Certification: The Process and the Outcome. Paper

presented at the annual meeting of the American Educational Research Association. New York; April, 1977.

Performance Based Counselor Certification.  
Paper presented at the annual meeting of the Georgia School Counselor Association, Savannah, Georgia. November, 1977.

Performance Based Counselor Certification.  
Paper presented at the annual meeting of the Georgia Personnel and Guidance Association, Atlanta, Georgia. March, 1978.

A Model for Determining a Minimal Cut-Off Score for Criterion-Referenced Tests: An Empirical Application. Paper presented at the Sixteenth Southeastern Invitational Conference on Measurement in Education. Blacksburg, Virginia. December 3, 1977.

Performance Based Counselor Certification.  
Paper presented at the annual meeting of the American Personnel and Guidance Association. Washington, D. C., March, 1978.

Performance Based Counselor Certification.  
Paper presented at the annual meeting of the American Educational Research Association. Toronto, March, 1978.

Skills and Capabilities Needed in an Intermediate Educational Agency. Paper presented at the 17th Annual Southeastern Invitational Conference on Measurement in Education. University of North Carolina, December 1978.

A Defensible Model for Determining a Minimal Cut-Off Score for a Criterion-Referenced Certification Examination. Paper presented at the annual meeting of the National Council on Measurement in Education, San Francisco, April 1979.

Performance Based Counselor Certification: A Model. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 1979.

Current Testing and Evaluation Strategies.  
Paper presented at the annual meeting of the Georgia Psychological Association, Atlanta, Georgia, May 1979.

Cut-Scores and Alternate Forms - A New Frontier or Back to the Trenches. Paper presented at the annual meeting of the National Council on Measurement in Education, Boston, April 1980.

PROJECT REPORTS AND UNPUBLISHED PAPERS:

Characteristics of SEEK Program Students. The University of New York Research and Evaluation Unit.

Characteristics of College Discovery Program Students. The City University of New York Research and Evaluation Unit. November, 1969.

Fall 1969 Admissions to the SEEK and College Discovery Program: A Comparison of the acceptance rated from each poverty area of New York City. The City University of New York Research and Evaluation Unit. April, 1970.

First Semester Performance of College Discovery Program Students of the September 1968 Entering Class. The City University of New York Research and Evaluation Unit. May, 1970.

Discovering and Developing the College Potential of Disadvantaged High School Youth: A Report of the Sixth Year of a longitudinal Study of the College Discovery and Development Program. Office of Teacher Education of the City University of New York, October, 1973.

Issues Concerning Criterion-Referenced Testing: An Overview. September, 1974.

Planning Report #1: The Development of a Model Comprehensive Needs-Based Guidance System and Modular Instructional Strategies. August, 1975.

Progress Report: The Development of a Model Comprehensive Needs-Based Guidance System and Modular Instructional Strategies. Pioneer CESA, March, 1974.

A Model for a Student Needs-Based Guidance System. Pioneer CESA, 1975.

Georgia School Counselor Competency Exam: User's Guide and Technical Report. Pioneer CESA and Georgia State Department of Education, 1977.

CONSULTING ACTIVITIES:

Georgia Department of Education, Atlanta, Georgia. Served as a consultant in the preparation of a National Institute of Education Proposal for the Statewide Diffusion of R & D Products for Educational Improvement. February, 1976.



Department of Instructional Services, Pioneer CESA, Cleveland, Georgia. Served as a consultant in the preparation of an application for a part D, three-year Vocational Education Grant to implement and demonstrate the National Institute of Education's Experienced-Based Career Education Program. May, 1976.

Union, Banks and Hart Counties, Georgia. Assisted these school systems in the preparation of ESEA Title IV, Part C proposals designed to meet local educational needs. 1975-1976.

Organized and conducted a three-day Evaluation Workshop for Title III personnel in a 13 county area. March 19-21, 1975. Unicoi Conference Center, Helen, Georgia.

National University Center, Peabody College, Nashville, Tennessee. Served as a consultant in the preparation of a Spencer Foundation Grant for the Assessment of the Sioux Indian Child's Affective Orientation to Self and Environment. May, 1976.

Georgia Department of Education, Atlanta, Georgia. Participated in the training of school personnel in the use of observation instruments. January, 1977.

NCME-ETS Seminar Staff Member. "Talking About Tests with Students, Parents and the Community" September 30, 1977, Atlanta, Ga.

Career Education Center for the Preservice and In-Service Training of Classroom Teachers School of Education, Auburn University. Served as an evaluation consultant.

Organized and directed a three day regional conference on "Issues in Competency Based Education." Georgia State University, October 1978.

A survey to assess and describe adult education needs in Georgia Educational areas. Funded by Georgia State Department of Education, Office of Adult Education, 1978.

#### TRAINING COURSES:

Criterion-Referenced and Objectives-Referenced Measurement. Conducted by Educational Testing Service, Princeton, New Jersey, November, 408, 1974.

Essentials of Criterion-Referenced Measurement  
for Educational Evaluation. AERA Presession,  
San Francisco, April, 1976.

AREAS OF EXPERTISE:

Criterion-Referenced Measurement  
Competency-Based Preparation/Performance Based  
Certification  
Evaluation of School Programs  
Research Design and Methodology  
Tests and Measurements

PROFESSIONAL MEMBERSHIPS:

National Council on Measurement in Education  
American Educational Research Association  
American Statistical Association  
American Psychological Association  
Phi Delta Kappa, Vice President, Gainesville  
Chapter  
Georgia Educational Research Association

R. ROBERT RENTZ

EDUCATIONAL BACKGROUND

Ed.D. University of Georgia 1969  
Major: Research Design

M.Ed. University of Georgia 1968  
Major: Educational Psychology

B.A. West Georgia College 1966  
Major: Psychology

1976-CURRENT

As President of R & R Evaluations, Inc., Rentz is responsible for the overall direction and activities of the company which currently emphasizes test development through the use of item banks, test equating applications and state assessment programs. A contract with the Psychological Corporation calls for design and analysis throughout the development stages of the Stanford Achievement Test, 1982 version; the research will involve both traditional and Rasch model item analysis and equating.

As Professor in the Department of Educational Foundations at Georgia State University, Rentz teaches measurement and research courses, and is responsible for directing students' dissertations in related areas. Teaching graduate classes incorporates all of his current research. These associations provide opportunities to maintain his leadership in the area of measurement research. The State of Georgia has awarded contracts for the development of statewide tests for all 1st, 4th, 8th, and 10th grade students to Georgia State University. Rentz is the research consultant to this project while the administration is coordinated by a project director under the direction of Rentz.

1973-CURRENT

As Director of the Regents' Testing Program (since 1970), Rentz has the experience of maintaining over several years a minimum competency testing program in reading and writing at the college level. In addition, instruments to measure reading, English, and math skills was developed for use in the University System of Georgia. This Basic Skills Examination is in the third year of operation using Rasch item banks for each area.

Consulting to groups responsible for selecting and implementing minimum competency testing programs gives Rentz the opportunity to influence testing decisions throughout the country. He is also privy to the discussions of fellow researchers on current methodology, problems and resources in the field of measurement for large-scale applications. Continuing associations involve advising on Medical College Admissions Test equating, the statewide testing program for the State of Virginia, and Technical Advisory Committee on California Assessment Program and the RMC Advisory Committee on scaling and equating for the Title I evaluating and reporting system.



PREVIOUS PROFESSIONAL EXPERIENCE

Associate Professor, Educational Research, University of Georgia 1973-76

Selected as a member of the graduate faculty in the School of Education (in 1970), Rentz taught advanced measurement and research courses, directed 10 dissertations and concurrently served as director of the Regents' Testing Program and director of the Educational Research Laboratory. The major research at the laboratory involved a three year analysis of the Anchor Test Study using the Rasch Model.

From a list of over 85 entries, the following articles, chapters, presentations, and seminars have been selected to illustrate the professional qualifications of Dr. Rentz for the proposed project:

Rentz, R.R. and Thompson, D.J. Large scale essay testing: Implications for test construction and evaluation. Paper presented at the International Invitational Conference on Testing, the Hague, Netherlands, July, 1973.

Rentz, R.R. and Pyecha, J.N. A Rasch model equating study for the recommended ESEA Title I migrant program evaluation system. Concept paper No. CP-22-77-03, Center for Educational Research and Evaluation, Research Triangle Institute, North Carolina, August, 1977.

Rentz, R.R. Developing holistic scoring methods for essays. Indiana University, Bloomington, Indiana, Freshman English faculty, September 9-10, 1977.

Rentz, R.R. and Bashaw, W.L. The national reference scale for reading: An application of the Rasch model. Journal of Educational Measurement, 1977 14, 161-179.

Rentz, R.R. Monitoring the quality of an item-pool calibrated by the Rasch model. Paper presented at the annual meeting of the National Council on Measurement in Education, Toronto, Canada, March, 1978.

Rentz, R.R. and Ridenour, S.E. The fit of the Rasch model to achievement tests. Paper presented at the annual meeting of the Eastern Educational Research Association, Williamsburg, Virginia, March, 1978.

Rentz, R.R. Michigan seminar on the use of criterion-referenced tests and the Rasch model in Title I Evaluation. Dearborn, Michigan, July 31-August 1, 1978.

Rentz, R.R. and Rentz, C.C. The Rasch model and its uses in Educational Evaluation. Seminar sponsored by Office of Planning, Budgeting, and Evaluation, USOE, Washington, D. C., September, 1978.

Rentz, R.R. Testing and the Baccalaureate Degree. Paper presented at the ETS Invitational Conference on Testing, Washington, D. C., October, 1978.

Rentz, R.R. and Rentz, C.C. Does the Rasch model really work? A discussion for practitioners. Princeton: ERIC Clearinghouse for Tests, Measurement, and Evaluation, Educational Testing Service, Spring, 1979. Also to be reprinted in Measurement in Education, National Council on Measurement in Education, Summer, 1979.

Rentz, R.R. Characteristics of tests used in a minimum competency testing program in higher education. Chapter 20 in R. Jaeger and C. Tittle (eds.) Minimum Competency Achievement Testing, Berkeley, Calif.: McCutchan Publishing Corp., 1980.

## VITA

Andria M. Troutman

Name: Andria M. Troutman

Present Position: Professor, Mathematics Education, University of South Florida,  
Tampa, Florida 33620

Date of Birth: June 16, 1936

Education: University of Florida, Ed.D., Mathematics Education,  
August, 1971  
University of Florida, Ed.S., Supervision and Administration,  
August, 1968  
University of South Florida, M.A., Mathematics,  
December, 1966  
University of Tampa, B.S., Mathematics,  
June, 1960

### Professional Experience:

University of South Florida, Professor, 1978-  
University of South Florida, Associate Professor, 1974-78  
University of South Florida, Assistant Professor, 1971-74  
United States Office of Education, Field Specialist, 1968-73  
University of Florida, Graduate Teaching Assistant, Spring/Summer, 1972  
Hillsborough County School Board, Mathematics Supervisor, 1968-71 and  
1966-67  
University of South Florida, Graduate Teaching Assistant, 1965-66  
University of South Florida, Interim Instructor, Summer, 1965  
Hillsborough County School Board, Mathematics Department Chairman,  
1963-65  
Hillsborough County School Board, Classroom Teacher, 1961-65

### Work in Progress:

Mathematical Difficulties: Prevention, Diagnosis and Remediation. Brooks/  
Cole Publishing Company, Monterey, California. This is a college text that  
deals with preventing, diagnosing and remediating mathematical misconceptions  
pre-algebra students might develop.

The Analysis and Classification of Common Mathematical Difficulties  
Related to Basic Skills. The Identification and Validation of Related  
Learning Sequences. (State Department of Education, USF IDEA Center)

Diagnosis: An Instructional Goal - Grades 3 and Up, Kits B<sub>1</sub> and B<sub>2</sub>.  
Science Research Associates, Chicago, Illinois. This is a set of 40<sup>2</sup> diag-  
nostic tests and a handbook that discusses mathematical difficulties  
students encounter. Topics include Numeration, Addition, Subtraction,  
Multiplication and Division of Rational Numbers. Writing Number Sentences,  
Solving Word Problems, Geometry and Measurement, and Probability and  
Statistics.



Work in Progress--(contd)

The Laidlaw Mathematics Program K-8 (Reivision). Laidlaw Brothers  
Publishing Company, River Forest, Illinois.

Remediation of Mathematical Difficulties Involving the Use of Fractions  
and Decimals. Hernando County School Board.

An Application of the Rasch Model to Investigate Learning Sequences in  
Mathematics for Low Achievers. (This proposal was written with Annie  
Ward.) NIE.

Major Publications:

Science Research Associates. Andria Troutman, Consultant. Diagnosis: An Instructional Goal for Grades K-3. Chicago, Illinois. (To be published August, 1979.) (This is a set of 30 diagnostic tests and a handbook that discusses mathematical difficulties children encounter. Topics covered include Numeration, Adding and Subtracting Whole Numbers, Writing Number Sentences, Solving Problems, Geometry, Linear Measurement, and Time and Money. Instructional strategies for preventing and remediating difficulties are presented.)

Troutman, Bezdek, Bartoni, Chin, Smith and Wright. The Laidlaw Mathematics Series K-8. Laidlaw Brothers Publishing Company, River Forest, Illinois, January 1978, approximately 5000 pages. (This is a K-8 series involving 18 books and ancillary materials for providing mathematics instruction prior to high school instruction.)

Troutman, Andria, Lichtenberg, Betty and Molina, Norma. A Teaching Handbook for Mathematics: A Good Beginning. Brooks/Cole Publishing Company, Monterey, California, 1978.

Troutman, Andria and Lichtenberg, Betty. Mathematics: A Good Beginning. Brooks/Cole Publishing Company, Monterey, California, 1977, 598 pages.

Kidd, Kenneth and Troutman, Andria. Mathematics: An Activity Approach. Science Research Associates, Chicago, Illinois, 1977, approximately 100 pages.

Kidd, Kenneth and Troutman, Andria. Teachers Handbook for Mathematics: An Activity Approach. Science Research Associates, Chicago, Illinois, 1977, 137 pages.

Gladstone, Joseph and Gladstone, David. Metric Mathematics: K-Adult. (Program Consultant: Troutman, Andria). Science Research Associates, Chicago, Illinois, 1975.

Lichtenberg, Betty and Troutman, Andria (Editors). Fostering Creativity Through Mathematics. Florida Council of Teachers of Mathematics, Tampa, Florida 1974, 142 pages.

Articles for Refereed Journals or Publishing Companies:

Forseth, Sonia and Troutman, Andria. "Designs Exhibiting Mathematical Structure." School Science and Mathematics, December, 1974.

Troutman, Andria and Lichtenberg, Betty. "Problem Solving in the General Mathematics Classroom." The Mathematics Teacher, October, 1974.

Forseth, Sonia and Troutman, Andria. "Mathematical Structures to Generate Artistic Designs." The Mathematics Teacher, May, 1974.

Troutman, Andria and Lichtenberg, Betty. "Let's Make Drill Palatab." School Science and Mathematics, January, 1974

Troutman, Andria. "Strategies for Teaching Elementary School Mathematics." (Reprint), The Education Digest, December, 1973.

Troutman, Andria. "Strategies for Teaching Elementary School Mathematics." The Arithmetic Teacher, October, 1973.

Troutman, Andria and Moore, Henry. Counter-Trek: A Game of Mathematical Strategy. Sigma Scientific Company, Gainesville, Florida, April, 1973.

Troutman, Andria and Forseth, Sonia. Painting Exhibiting Mathematical Structure. Creative Publications, Palo Alto, California, January, 1973.

Articles for Non-Refereed Journals:

Troutman, Andria. "Some Mind Reading Fun." Florida Council of Teachers of Mathematics Newsletter, Gainesville, Florida, October, 1971.

Published Reviews for Refereed Journals:

As Editor of the monthly column "New Books for Teachers" in The Arithmetic Teacher, I have written several reviews for the 1977-78 issues.



Publications for School Systems:

Title I Training Cadre Handbook. Polk County Schools, January, 1979.

Troutman, Andria and Craig, Deborah. Elementary Mathematics Self-Instruction Project, Second Edition. Pinellas County School Board, 1976. (This project includes 20 modules for building 154 mathematical competencies deemed necessary for acquisition by elementary school teachers. The modules were developed, then reviewed by mathematics educators for their content validity and fielded with 120 elementary school teachers. Revisions were made on the basis of data collected in the fielding activities. Each module is accompanied by a work package that participants use when completing it.)

Troutman, Andria and Lichtenberg, Betty. Mathematics Competencies for Elementary School Teachers. Pinellas County School Board, 1976.

Troutman, Andria and Lichtenberg, Betty. Survey of Elementary Mathematics Understandings (Form B). Pinellas County School Board, January, 1976.

Troutman, Andria and Craig, Deborah. Elementary Mathematics Self-Instruction Project, First Edition. Pinellas County School Board, 1975.

Troutman, Andria, Lichtenberg, Betty and Headlee, John. Mathematics Curriculum Guide K-12. Citrus County School Board, March, 1973.

Troutman, Andria, Pre-Algebra Mathematics Behaviors. Hillsborough County School Board, 1970.

Troutman, Andria and Sessions, W. I Challenge You. Hillsborough County School Board, 1970.

Degenaro, J. and Troutman, Andria. Calculator Quickies. Hillsborough County School Board, 1970.

Troutman, Andria (directed the writing of) Diagnostic Teaching in Mathematics. Hillsborough County School Board, 1969.

Troutman, Andria. Wits Ladder. Hillsborough County School Board, 1967, 22 puzzles.

Technical Reports:

Troutman, Andria. "Problem Solving," General Mathematics: A Teaching Guide. Florida State Department of Education, August, 1974.

Troutman, Andria. Analysis of Mathematics State Assessment. Florida State Department of Education, 1973.

Technical Reports--(contd)

Troutman, Andria and Henry, Renee. Learn and Earn Mathematics Program. Florida State Department of Education, November, 1971.

Troutman, Andria. Mathematics Specific Cognitive Behavior Taxonomy and Defining Criteria. Monograph, Florida State Department of Education, 1971.

Troutman, Andria, Wadley, F. and Jeffries, M. Mathematics Specific Cognitive Behaviors, Protocols and Their Descriptions. Florida State Department of Education, 1971.

Troutman, Andria, Eden, Charlotte and Elvery, Anne. Get Set: A Teacher Training Mini Course for the Establishment of Psychological Set. Florida State Department of Education, 1968.

Creative Non-Published Works:

Exhibition of paintings exhibiting mathematical structures, interpretations by Andria Troutman. Creative Publications Teaching Resource Center, Palo Alto, California, 1973.

Developed A Criteria for the Selection of Mathematics Curriculum for Low Achievers. Hillsborough County School Board, March, 1971.

Other Professional Activities:

Speaker at National Council of Teachers of Mathematics meetings and at Florida Council of Teachers of Mathematics meetings

Speaker at major university, educational agencies for the State of Florida and the USOE

Speaker at the Florida Educational Research Association

Speaker at many State affiliated groups of the Florida Council of Teachers of Mathematics

Speaker for the American Mathematics Association

Consultant to in-service programs of numerous school districts

Mathematics consultant to the Southern Association for Accreditation Committees

Andria M. Troutman

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Other Professional Activities--(contd)

Referee for the Arithmetic Teacher

Consultant to major publishing companies: Laidlaw Brothers, Wadsworth, McGraw Hill, Science Research Associates, and Hypermetrics

Editor of column, New Books for Teachers, in the Arithmetic Teacher

President (1976-77), President-Elect (1975-76), Vice President for Colleges (1973-74 and 1974-75), and Member of Nominating Committee (1969-70); Florida Council of Teachers of Mathematics

Secretary-Treasurer, Florida Association of Mathematics Supervisors, 1970-71

Writer of mathematical test items for grades 6, 9, and 11, Florida State Department of Education Assessment Program

Member of Several professional organization

Member of many College of Education and University committees



## VITA

LOIS I. MICHAEL  
14906 Lejuene Lane  
Tampa, Florida 33612

Birthdate: October 14, 1920  
Divorced  
One Adult Son

### EDUCATION

B.A. Cincinnati Bible Seminary 1939  
B.S. West Georgia College 1959  
M.S. Auburn University 1963  
Ed.D. Auburn University 1966

### PROFESSIONAL EXPERIENCE

Supervisor of Reading/Language Arts  
District School Board of Pasco County 1973 - Present

Visiting Lecturer  
Riverina College of Advanced Education  
Wagga Wagga, N.S.W., Australia 1973

Consultant  
Development of Diagnostic Prescriptive Reading Program  
Putnam County District School Board 1971-1972

Assistant Professor and Director of Reading Clinic  
University of South Florida, Tampa 1966-1971

Instructional Supervisor  
Carroll County, Georgia Board of Education 1965-1966

Teacher - Bowdon Elementary and Central Elementary  
Carroll County, Georgia Board of Education 1961-1965

Teacher - Brookshire Elementary  
Orange County District School Board 1960-1961

Teacher - Dallas Elementary  
Paulding County, Georgia Board of Education 1959-1960

### PUBLICATION

"Reading Clinics" - Reading and Realism  
International Reading Association, Newark, N.J. 1969

CONSULTANT ACTIVITIES

## Title I Programs

Manatee County District School Board 1968 - 1971

## Title I Programs, Migrant Programs, Elementary Principals Conference

Hillsborough County District School Board 1967 - 1971

## Diagnostic Consultant

Polk County District School Board 1967 - 1970

## NDEA Institute

Auburn University 1967

## Title I Workshops

Pasco County District School Board 1968 - 1971

## Title I Workshops

Lee County District School Board 1972

## Florida Right-to-Read Programs

1973 - 1976

## Migrant Program

Palm Beach County District School Board 1969

## Title III Project

Putnam County District School Board 1970 - 1971

## Staff Development in Reading

Putnam County District School Board 1970 - 1971

## Title I Workshop

Washington, D. C. 1972

OTHER PROFESSIONAL ACTIVITIES

## Speaker and Panelist

State, Regional, and National Reading Association Programs 1966 - 1976

## Speaker

Gables Academy Conference

St. Petersburg, Florida 1974

## Pasco District School Board Director of Right-to-Read Project

Designing a Staff Development Model for Training Reading/LA

Resource Specialists 1973 - 1974

## Evaluator

Title III Project to Develop Learning Disability Training Program,

Pinellas County 1969

"A Factor Analysis of Mental Imagery"  
Unpublished doctoral dissertation,  
Auburn University, 1966

"Michael Informal Analysis of Word Recognition Skills"  
Diagnostic Reading Test, 1970

FUNDED PROJECT

Development of Reading Center at University of South Florida 1968  
\$25,000. project funded by Florida Department of Education

HONORS

Phi Kappa Phi  
Kappa Delta Pi

PROFESSIONAL ORGANIZATIONS

Florida State Reading Council  
International Reading Association  
Florida Teachers of English  
Conference of Language Arts Supervisors  
Florida ASCD  
American Psychological Association  
American Speech and Hearing Association



VITA

WILLIAM W. WEST

Soc. Sec. No.: 481-20-4323

Date of Birth: August 26, 1925

Family

Former Wife: Dolores A. West (25 years)

Two Children: Scott (23), Nancy (17)

Present Wife: Delight K. West (6 years)

Three Stepchildren: Karl (21), Karen (18), Leonard (15)

Education

East Waterloo High School, Waterloo, Iowa  
University of Kansas, Lawrence, Kansas

B.A., University of Northern Iowa, Major: English-Speech 1948  
Cedar Falls, Iowa Minor: French

University of Wisconsin,  
Madison, Wisconsin

M.A., State University of Iowa, Major: English-Education 1953  
Iowa City, Iowa

Thesis title: A Study of Some of the Written Errors in the Initial and  
Final Themes of Freshman Communications Skills Students  
at the State University of Iowa

Boston University,  
Boston, Massachusetts

Cornell University,  
Ithaca, New York

Ph.D., Syracuse University, Major: English-Education 1966  
Syracuse, New York Minor: Reading

Dissertation title: A Comparison of a "Composition Equivalencies" Approach  
and a Traditional Approach to Teaching Writing

### Experience

Teacher, Glidden Consolidated School, Glidden, Iowa	1948-49
Chairman, Department of English, William Horlick High School, Racine, Wisconsin	1949-51 1952-58
Demonstration Teacher, State University of Iowa High School, Iowa City, Iowa	1951-52
Director of Religious Education, First Methodist Church, Racine, Wisconsin	1952-58
English Editor, D. C. Heath and Company, Boston, Massachusetts	1958-60
Teacher of English, Newton High School, Newton, Massachusetts	1960-62
Assistant Professor of English Education, State University of New York, College at Cortland, New York	1962-64
Associate Professor of English Education, Syracuse University, Syracuse, New York	1964-69
Director of English Education Instruction, Peace Corps Training Program, Syracuse University, Syracuse, New York	1967-68
Director of Educational Personnel Development Act Program to Develop a Language-Centered Curriculum, Syracuse University Syracuse, New York	1968-69
Professor of English Education, University of South Florida, Tampa, Florida	1969- continuing

## Research and Creative Activities

### Publications

#### Books

Developing Writing Skills, (Two Editions), Englewood Cliffs, N. J., Prentice-Hall, 320 pages, 1966, 1973.

On Writing, By Writers, Waltham, Mass., Ginn and Company, 425 pages, 1966.

Ginn Secondary School English Language and Composition Series, Grades 7-12, Project Director, Volumes I-VI, Waltham, Mass., Ginn and Company, 1968.

"Reading and Written Communications," Vols. I-VII, The Florida Catalog of Performance Objectives in Written Communication, Tallahassee, Florida Department of Education, Research and Development Section (General Editor and Project Director), 1974.

Ginn Secondary School English Composition Series, (Six Separate Volumes): Recognizing, Synthesizing, Analyzing, Explaining, Experiencing, Organizing, Criticizing (General Editor and Project Director), Waltham, Mass., Ginn and Company, 1975.

Exploring, Visualizing, Composing (with Stephen Stremmel of American River College, California), Freshman Composition Textbook, Englewood Cliffs, N. J., Prentice-Hall, 1978, in press.



Research and Creative Activities (Cont.)

Chapters or Segments of Books

"Linguistics and Reading," Proceedings of the Syracuse University Reading Conference, June, 1967.

"A Curriculum Design," Ideal Designs for English Programs, Educational Comment, Toledo, University of Toledo, College of Education, 1968, pp. 26-30.

"Parallels in Visual and Verbal Composition," Proceedings of the First National Conference on Visual Literacy (eds. Clarence M. Williams and John L. Debes), New York, Pitman Publishing Corporation, 1970.

"Values of Linguistics in High School Reading," Linguistics for Teachers, Selected Readings (ed. John F. Savage), Palo Alto, Science Research Associates, Inc., 1973.

Contribution to 1973 Stanford Language Arts examination and preparation for 1982 revision.

"Teaching Basic Grammar to Slow Learners," Questions English Teachers Ask (ed. R. Baird Shuman), New York, Hayden Publishing Company, 1975-76.

"What Is the Best Way to Disseminate Research to Teachers?" Reading Interaction: The Teacher, The Pupil, The Materials (ed. Brother Courtney), Newark (Delaware), International Reading Association, 1976.

Preparation of approximately 30 biographies for The Centennial Edition of the Encyclopedia of Great American Educators (ed. John Ohles, Kent State University), 1978.

Six chapters for Sixth Grade Humanities book to be published by Harcourt, Brace, Jovanovich.

Research and Creative Activities (Cont.)

Articles in Refereed Journals

"How to Avoid Work," English Journal, November, 1958.

"Give Them a Pattern," English Leaflet, New England Association of Teachers of English, Fall, 1964.

"Research in Written Composition, 1964-1966," Journal of Educational Research, April, 1967.

"Relevance from All the Grammars," The English Record, Vol. xxi, No. 1, October, 1970, pp. 29-36.

"Letter to Be Slipped Unobtrusively to Professors of English," Reading Improvement, February, 1971.

"English Literature for Lower-Ability Students. Here's How--But Why Bother!" English Journal, March, 1971.

"A New Device for Character Analysis," Exercise Exchange, Spring, 1973.

"Semantic Principles and Performance Objectives," ETC./Magazine of the International Society for General Semantics, April, 1975.

"How Should Teachers Handle the Literature Students Are Reading?" (with Frances S. Goforth), Language Arts, Vol. 52, No. 8, Nov./Dec., 1975, pp. 1135-1140.

"Using Questions to Develop Language," English Journal, Vol. 65, No. 9, December, 1976.

"I'm Skipping the Banquet," Connecticut English Journal, Fall, 1976.

"Getting Back on the Track," Connecticut English Journal, Fall, 1976.

"Correction Is Surely the Wrong Word," Connecticut English Journal, Fall, 1977.

Articles in Non-refereed Journals

"Composition Equivalencies," English Notes, Ginn and Company, Fall, 1965.

"On Being Bi-Dialectical," Commonweal, Vol. XCV, No. 19, February 11, 1972, pp. 454-455.

Research and Creative Activities (Cont.)

Reviews

A review of "Clear Writing" by Marilyn B. Gilbert, New York, John Wiley & Sons, Inc., English Journal, January, 1973 (Vol. 62, No. 1).

A review of "Pattern Practices to Learn to Write By," English Journal, February, 1973 (Vol. 62, No. 2).

Consultant to Coronet Instructional Media, 65 East South Water Street, Chicago, Illinois 60601, for Production #K137, titled Blue Pencil Blues and including cassettes, response sheets, and other ancillary materials for the following titles:

"Hooked Your Reader?"	"Making Connections"	
"Is Shorter Better?"	"Variety the Spice of?"	
"Where's the Action?"	"All Fouled Up?"	1975-76
"Who's Your Subject?"	"Say It Your Way"	
"Nail It Down!"	"Wrap It Up!"	

Editorial consultant for Improving English Instruction, by Royal Morsey, Chicago, Rand, McNally, 1976.

A review of Variations, 12-book literature series published by Harcourt, Brace, Jovanovich in English Journal, February, 1976 (Vol. 65, No. 2), pp. 76-77.

Four reviews of adolescent novels for The Reading Teacher, Fall, 1977.



## Professional Organizations

### International

International Reading Association (Member)

Member, Board of Advisors, American Institute for Foreign Study,  
College Division, Greenwich, Connecticut 1968-75

Dean of Students for American Institute for Foreign Study. Summers 1969  
College Programs at Birkbeck College, Imperial College 1970  
(University of London) 1972

### National

Conference on English Education (Member)

Phi Delta Kappa (Member)

National Conference on Research in English (Member)

Member, National Council of Teachers of English Committee  
on Affiliate Relations 1970-73

Chair, National Council of Teachers of English  
Nominating Committee 1972

Chair, National Council of Teachers of English Committee  
on Affiliate Publications 1973-77

Judge, National Council of Teachers of English April 1977  
Achievement Awards in Writing 1978

Essay Reader, College Entrance Examination Board's  
English Composition Test December 1977

Director, First Annual Writing Awards Competition,  
Florida Council of Teachers of English 1973

Conference on English Education Commission  
on Preparing and Retraining Teachers of English  
Language Arts to Work with Other Clienteles (Member) 1978

Professional Organizations (Cont.)

State

Executive Secretary, New York State English Council 1966-68

Regional Director for the Tampa Bay 12-County Region  
of the Florida Council of Teachers of English

Director of the First Annual and Second Annual Tampa Bay  
Regional Conference on the Teaching of English--

About 100 participants

April 6, 1973

About 200 participants

May 12, 1973

Second Vice President and Program Chairman at the  
Florida Council of Teachers of English Annual Conference

1977-78

Delegate of Florida Council of Teachers of English  
to NCTE SLATE Conference (Support for Learning and  
Teaching of English)

November 1977

College-University Service (Prior)

Member, College of Education Curriculum Committee	1972-73
Member, College of Education Faculty Personnel Policy Committee (relatively inactive)	1973-74
Member, University of South Florida Library Advisory Committee	1973-74
Member, College of Education Committee on Tenure and Promotion Appeals	1973-74
Chair, Secondary Committee to Determine Methods for Meeting State-Mandated Reading Competencies in Each Area	1974
Chair of the Chair Search Committee for Department of Human Effectiveness	1974
Member, Reading/Language Arts Committee for Ed.S. and Ph.D. Programs	1974
Editor, Center for Educational Policies Study Newsletter, INTERFACE	1974-75
Member, Dean's Delegation to Common Course Numbering Conference	1975-77
Writer, Internship Brochure for Student Teaching Office	1976
Member, Departmental Promotion and Tenure and Annual Review Committee	1976-77



College Service (Current)

Member, Delegation to Statewide Common Course Designation and Numbering System	1975-78
Member, Committee on Graduate Programs in Reading, Language Arts	1976-78
Member, College of Education, Promotion and Tenure Advisory Committee	1977
Volunteer FOCUS Advisor	1977
University Senator	1977-78
Chair, College Council	1977-78
Member, Graduate Advisory Committee	1977-78
Member, Teacher Education Center Coordinating Council	1977-78
Organized Wet Symposium	November 1977
Speaker, Raymond Patouillet Memorial Convocation	January 1978
Search Committees	
To recommend a University Library Cataloguer	
To recommend three appointments in Elementary Education (two in Ft. Myers; one in Sarasota)	

Major Speeches, Consulting, Service (Beginning 1973)

Consultant, "Teaching of Composition," two days, Midland, Texas, January 3, 4, 1973.

Speaker, "The Florida Catalog of Language Arts Objectives," Conference of Language Arts Supervisors, Kahler Motor Inn, Orlando, Florida, February 12, 1973.

Speaker, "Training Teachers of English for Community Colleges," Conference on English Education, Baltimore, Maryland, April, 1973.

Speaker, "Utilizing Performance Objectives in English Classes," Polk County Public Schools, Lakeland, Florida, August 18, 1973.

Speaker, "New Directions in Teaching English," Amarillo, Texas, August 20, 1973.

Speaker, "Performance Objectives in English," Hillsborough County Catholic Board of Education, English and Language Arts Teachers, November, 1973.

Speaker, "National Trends in Teaching English," Fourth Annual Conference on the Teaching of English, Pembroke State University, Pembroke, North Carolina, December 1, 1973.

Speaker, "Workshop on Current Trends in the Teaching of Composition," Pinellas County Schools, January 21, 1974.

Member of School Evaluation Team (Ten-year Evaluation), Seminole Senior High School, Pinellas County, March 6, 7, 8, 1974.

"What Seems to Be the Most Effective Way of Disseminating Reading Research in a Meaningful and Useful Manner to Classroom Teachers?" International Reading Association Convention, New Orleans, May 2, 1974.

"Disseminating, Implementing, and Utilizing the New Florida Catalog of Writing Objectives," Conference of Language Arts Supervisors, Orlando, Florida, May 22, 23, 1974.

"Use of the Florida Catalog of Writing Objectives," Regional Language Arts Supervisors, Kahler Motor Inn, Orlando, Florida, August 8, 1974.

"Use of the Florida Catalog of Writing Objectives," Regional Language Arts Supervisors, Riverside Hilton, Tampa, Florida, August 12, 1974.

"Promises and Limitations of the Florida Catalogues of Reading Objectives," Annual Conference, Florida Reading Association, Cocoa Beach, Florida, Thursday, October 17, 1974.

"Florida State Catalog of Performance Objectives," Florida Council of Teachers of English, Daytona Beach, Florida, Friday, October 18, 1974.

"Stimulating Spontaneity and Retaining Control," National Council of Teachers of English, New Orleans, November 29, 1974.

Teacher of three-session workshop on "Reading in English" in the Middle School at Lakeland, November 18, 25, and December 2, 1974.

Major Speeches, Consulting, Service (Cont.)

Teacher of ten two-hour workshop sessions on "Linking the Affective and the Cognitive" in ESEA Title III Project, Children's Concerns A Curriculum Base, Howard Middle School, Ocala, Florida, November, 1974, through January, 1975.

"Using the Catalog of Objectives in Written Communication," Pinellas County English Department Chairmen, Largo (Florida) Curriculum and Instruction Center, December 6, 1974.

"Divine Afflatus or Cacoethes Scribendi," full-day Conference on "Creative Writing in the Elementary School," Hillsborough County Teachers, January 23, 1975, and repeated May 6, 1975.

Speaker, "Enriching English Offerings," English Department In-Service Workshop, Tampa Catholic High School, February 10, 1975.

"Using the Florida Catalog of Performance Objectives for Written Communication," Polk County English Department Chairmen, Bartow (Florida) Senior High School, March 7, 1975.

Chair, "Challenging the Composition Student," District 4 Conference, Florida Council of Teachers of English, Riverview High School, Sarasota, March 15, 1975.

"Mini-Workshop on Creative Writing," Dunbar (Florida) Elementary School Professional Study Day Program, April 4, 1975.

"Varieties of Teaching Styles," a sixteen-contact-hour in-service training component (two hours per day for eight days) for Pinellas County English Teachers, April 29; May 1, 6, 8, 13, 15, 1975.

Consultant, National Council of Teachers of English Pre-Convention Study Group, "Approaches to Freshman Composition," San Diego, November 24-26, 1975;  
Speaker, "Gatekeeping and Quality Control," National Council of Teachers of English, San Diego, November 28, 1975.

"Teaching Vocabulary in the Middle School," Pinellas County In-Service Workshop, February 27, 1976.

Speaker, "Guidelines for Training Teachers of English," ASCD Annual Conference, Miami Beach, March 14, 1976.

Lecture on Creative Writing to Sun City Center Woman's Club Workshop, April 14, 1976.

English Language Arts consultant on the Southeastern Association Accrediting Team for Hernando Senior High School, Brooksville, April 27-30, 1976.

Consultant to the Secondary English Task Force of the Florida Department of Education to Identify Optimum Competencies for Student Composition, Orlando, May 27, 28 and June 17, 18, 1976.

Consultant, "Developing an Intensive Reading, Language Arts Program in the High School for Below-level Students," Collier County (Florida) Summer Curriculum Development Project (three days), June, 1976.



Major Speeches, Consulting, Service (Cont.)

Consultant, "Developing a Meaningful Middle-School Language Arts Curriculum for Migrant Children," Immokalee (Collier County, Florida), two days, 1976.

Informal Consultation on English Programs, Tampa Catholic High School, 1976.

"Coordinating Composition," Wauchula (Florida) Junior-Senior High School English Teachers, October 8, 1976.

"Optimum Competencies in Written Composition," Florida Council of Teachers of English, Fort Walton Beach, October 15, 1976.

Speaker, "Teacher-Developed Linguistics Curriculum Projects," Florida Council of Teachers of English, Orlando, October 21, 1976.

"Teaching Language in the Middle School," Pinellas County In-Service Component (20 hours), 1972-73, 1973-74, 1975-76.

"Teaching Composition in the Middle School," Pinellas County In-Service Component (30 hours), 1972-73, 1973-74, 1975-76.

"Optimum Competencies in Written Composition, Grades 8 and 10," Educational Leadership Conference of COTE, FATE, FASI, DOE, Riverside Hilton, Tampa, Thursday, November 4, 1976.

"Back to the Basics in the Teaching of Composition," National Council of Teachers of English Annual Conference, Chicago, November 24, 1976. (Also Associate Chair of the two-day conference workshop.)

Lecture on "The Art of Listening," All Souls Unitarian-Universalist Fellowship, January 2, 1977.

"Improving English Offerings," Immokalee, Florida, January 21, 1977.

Lecture on "Perceptions from a Visit to Moscow and Leningrad," Temple Terrace (Florida) Sertoma Club, January 27, 1977.

"The Teaching of Written Composition," two-day workshop, Charleston, South Carolina, Public Schools, March 7, 8, 1977.

"School-wide Accountability for Teaching Writing--Our Share and Our Leadership Responsibility," and "National Assessment and Composition--Being Aware without Being Limited," National Council of Teachers of English Spring Workshop, Mobile, Alabama, March 18, 19, 1977.

Lecture on "The Decline of the American Family," All Souls Unitarian-Universalist Fellowship, March 20, 1977.

"Developing Vocabulary" and "Composition in the Elementary Schools," Punta Gorda, Florida, March 25, 1977.

"Developing Vocabulary," Combee Elementary School, Lakeland, Florida, April 1, 1977.

Major Speeches, Consulting, Service (Cont.)

"Design for a Composition Program," Science Research Associates Editorial Conference on Writing, Chicago, April 26, 27, 1977.

Coordinator with English Department Chairman John Clark of JOHNNY CAN'T WRITE, a one-day conference for area teachers of English, May 6, 1977.

"Editing of a Teacher-Education Center Proposal," Naples, Florida, May 10, 1977.

"Reading in the Language Arts Program," two sessions, Lake Placid, Florida, May 18 and May 25, 1977.

Lecture on "Central America on a Shoestring," Tampa Sertoma Club, May 26, 1977.

"Writing and Spelling Skills Workshop," Okaloosa (Florida) District Schools, Lewis Junior High School, July 28-29, 1977.

"Turn Write or You'll Be Left," (three presentations), Pasco County (Florida) First Annual Mini-Convention, August 23, 1977.

"Reading in the Content Areas: English," (three sessions), Venice, Florida, October 25, November 1, 29, 1977.

"Parliamentary Law in Leadership," Leadership Training Workshop, Naples, Florida, November 8, 1977.

"Little-known Facts about the First Thanksgiving," Forest Hills (Florida) United Methodist Church Women's Club, November 10, 1977.

"The Right Word," Dale Mabry Sertoma Club, November 30, 1977.

"Using Research Findings to Eliminate Student and Teacher Anxiety in the Writing Program," National Council of Teachers of English, New York City, November, 1977.

Panelist discussing Marshal McLuhan and Lou Foresdale, Tampa Book Fair, December 3, 1977.

"Basic Skills Remediation Programs," (ten three-hour sessions), Pinellas County, December, 1977-March 1978.

"Handling Remediation in the Language Arts Areas," Tri-County Teacher Education Center, La Belle High School, and Polk County Public Schools, Ft. Meade, Florida, January 27, 1978.

"Writing Road to Reading," Tri-County Public Schools Teacher Education Center, La Belle High School, January 30, 1978.

"Preparation for a Five-Year Evaluation," Charlotte (Florida) High School, February 7, 1978.

"Perceptions from a Visit to Moscow and Leningrad," Dale Mabry Sertoma Club, February 8, 1978.

Major Speeches, Consulting, Service (Cont.)

"Perceptions from A Visit to Moscow and Leningrad," Women's Auxiliary of the Veterinarian's Medical Association, February 28, 1978.

"Composing, Editing, and Proofreading--Separating and Integrating the Elements," Conference on English Education Annual Conference, Minneapolis, March 17, 1978.

Development of Florida Department of Education Assessment Tests and Manuals for Minimum Writing Skills, Grades 3, 5, 8, 11 (with Tom Freijo), 1977-78.



Proposals Submitted, 1977-78

To the Florida Endowment for the Humanities, a proposal for a Conference on the American Family. Rejected, presumably both because we requested too much money and because the design included non-fundable activities (drama). With Dr. Billy Gunter of the Sociology Department. Spring, 1977

To the National Endowment for the Humanities, a proposal for the preparation of an Historical and Intercultural Survey of the Teaching of Written Composition. (Rejected because of educational emphasis.) Spring, 1977

To the University of California/Berkeley Bay Area Writing Project, a proposal for the development of one of six National Demonstration Centers to be funded to the extent of \$11,500. Winter, 1978

To the University Personnel Office, a proposal for Sabbatical leave. Winter, 1978

To the ERIC LANGUAGE ARTS INFORMATION DISSEMINATION CENTER (Champaign, Illinois), a proposal for a TRIP Booklet (Theory into Practice) on Handling the Paper Correction Load in Written Composition. Winter, 1978

#### Community Service

Publicity Chair, Tampa Community Theatre

Role of Sheriff in Tampa Community Theatre Production of Front Page.  
Winter, 1975

Role of Horace in Tampa Community Theatre Production of The Little Foxes.  
Fall, 1976

Role of George in Tampa Community Theatre Production of Send Me No Flowers.  
Fall, 1977

Role of Judge in Tampa Community Theatre Production of The Chalk Garden.  
Spring, 1978

#### Self Improvement

"Newspaper in the Classroom," three-day Tampa Times-Tribune Workshop for teachers at Jefferson High School, August, 1975.

Accredited by the Reading Education Section to teach basic courses in the teaching of reading, June 7, 1976.

Participant in Career Education Conference, Tri-County Consortium, New College, Sarasota, and follow-up in fall (two days), 1976.

University course in Computer Awareness (EDC 483-101), Summer, 1977.

## CURRICULUM VITA

Name:	Ronald Cuervo
Address:	603 Leisure Avenue
	Tampa, FL 33612
Telephone:	(813) 961-6117

I. EDUCATION: (List only for degrees earned)

<u>Institution</u>	<u>Major</u>	<u>Minor</u>	<u>Degree</u>	<u>Date</u>
<u>University of South Florida</u>	<u>Education</u>	<u>Mathematics</u>	<u>B.A.</u>	<u>1968</u>
<u>University of Florida</u>	<u>Education</u>	<u>Mathematics</u>	<u>M.Ed.</u>	<u>1973</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

II. EMPLOYMENT EXPERIENCE:

A. Total Years:

Secondary Teaching: 11  
Secondary Administration: \_\_\_\_\_  
Secondary Supervision: 1  
Other: \_\_\_\_\_

B. Current Position (Include Dates):

Math Department Chairman -- Jefferson High School

Coordinator of Remedial Summer Program for 11 high schools

C. List Last Five Positions (Include Dates):

Buchanan Junior High	August 1968 to December 1972
Jefferson High School	August 1973 to Present
Hillsborough Community College	January 1974 to Present (Part-time)



### III. EDUCATIONAL SETTINGS:

Denote total years teaching in each setting:

- a. rural           
b. urban 11  
c. with Spanish children 11  
d. with Black children 8

IV. TEST DEVELOPMENT EXPERIENCE:

Project (Name of Test)

## Your Role

### Hillsborough County Eleventh Grade Criteria

Item writer

Referenced Test

Revision of State Assessment Part II

Item writer

V. OTHER EXPERIENCE PERTINENT TO ITEM WRITING:

Algebra I -- Individualized Curriculum Guide--includes Criteria Referenced Test

Algebra II-- Individualized Curriculum Guide--includes Criteria Referenced Test

The above are county level curriculum projects which I worked on and wrote test items for.

DEANNIE HOLLAND BOWEN  
5606 C Granada Boulevard  
Tampa, Florida 33617

Telephone: 988-1251 (home)  
835-1211 (school)

#### EDUCATION

University of Tennessee, Knoxville, TN	1957-58	
Jacksonville University, Jacksonville, FL	1964-66	BA (cum laude)
University of South Florida, Tampa, FL	1970-74	MA English Ed.

Certification: Rank II in English plus Supervision and Administration

Have attended numerous seminars, workshops, and classes in composition, journalism, humanities and creative writing.

#### EXPERIENCE

- |                                                  |                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1966-68 - Wolfson High School, Jacksonville, FL  | - Taught humanities, journalism, and sponsored the school newspaper.                                                                                                                                                                                                                                                      |
| 1968-69 - William Henry Middle School, Dover DEL | - Taught English, reading, humanities, Black history, advised the yearbook staff, and was team leader of our 7th-8th grade team.                                                                                                                                                                                          |
| 1969-present - Robinson High School, Tampa, FL   | - Have taught English II, English I, British literature, American literature, creative writing, composition, journalism, humanities, Basic English 3 (juniors), English IV A/P. Became Department Chairman in 1974 (18 teachers); advised newspaper, yearbook, literature magazine, calendar, sponsored Quill and Scroll. |

As Department Chairman I am responsible for checking lesson plans, checking and revising semester examinations, reviewing and revising curriculum, supervising 15 - 21 teachers, ordering supplies, ordering and critiquing textbooks, evaluating teacher and overall student performance, as well as teaching four classes. I also serve as liaison between administration offices -- both school and county -- and the department plus the county instructional office and the department.

I have implemented both the Advanced Placement program and the Compensatory Education program in our school. I served on county committees in both areas to prepare materials, instructional guides, and strategies. Since I have taught in both areas, I am completely familiar with materials, problems, and requirements of the teachers involved.

#### PROFESSIONAL HONORS AND POSITIONS

Advised yearbook (Excalibur) which received Five Star Award from National Scholastic Press Association as one of top three books in the nation in '76; speaker multiple times at local, state and national conventions in journalism -- composition and graphics --

at Columbia University in New York City, Chicago, Daytona, St. Petersburg, Fort Myers, Dallas, USF, Florida Tech, Tampa University, etc.; speaker on topics concerning the humanities at two Florida State English meetings; speaker on teaching the Basic student at State FCTE convention in Fort Walton Beach; humanities consultant to USF in May, 1979; national yearbook judge for NSPA, University of Minnesota; yearbook judge for Florida Scholastic Press Association; former Executive board member of FSPA; secretary of English Council in Duval County; District Director of Hillsborough - St. Petersburg Scholastic Journalism Association; member of Florida Council of Teachers of English, National Council of Teachers of English, Journalism Advisers Association, National Scholastic Press Association, Florida Scholastic Press Association, Columbia Scholastic Press Association and Advisers Association, and others.

Committees: Hillsborough Advanced Placement in English, Summer School Enrichment Program, Editor and re-writer of 300-plus page Writing modules for county - State Standards, pre-test on state standards --co-chairman, Duties of English Dept. Chairmen, USF Test Item reviewer for State Standards, Committee (under Kittie Mae Taylor) to review state objectives and skills for Compensatory Education program.

Writer of faculty-self-study in Teaching Composition funded by county, to be taught and studied in fall of '79.

Named outstanding teacher by faculty in '75, named outstanding teacher by senior class several times.

#### PERSONAL INFORMATION

Date of Birth:	July 8, 1939
Height and Weight:	5'3", 110 lbs.
Health:	Excellent
Children:	Two, both in college: son Bruce is entering USF under Early Admission policy; daughter Tricia is junior at Smith in Northampton.
Marital Status:	Divorced



## VITA

Susan P. Homan

### I Personal Data

Office: College of Education  
EDU 306M  
University of South Florida  
Tampa, Florida 33620

Home: 14772 Daybreak Drive  
Lutz, Florida 33549

Date of Birth: June 11, 1947

Sex: Female

Marital Status: Married

### II Academic Preparation

Ph.D. -- University of Florida -- December 1978  
Major: Reading, Curriculum and Instruction  
Minor: Evaluation and Measurement

M.A.E.-- Florida Technological University -- 1975  
Major: Reading

B.A.E.-- University of Florida -- 1969  
Major: Elementary Education  
Minor: Social Sciences

### III Professional Experience

#### A. Teaching - College

1. Assistant Professor, University of South Florida (1978- ).  
Taught basic methods and corrective reading courses to undergraduates.
2. Instructor, Florida Southern College, (1977-78).  
Taught basic methods, corrective reading and secondary reading and language arts courses to undergraduates.
3. Adjunct Instructor, College of Education, University of Florida (Spring, 1977). Taught basic methods course in reading to undergraduate and graduate students.
4. Graduate Teaching Assistant, College of Education, University of Florida (1976 and 1977). Assisted in teaching basic methods course in reading; monitored in-service programs for county teachers; assisted in BOR STAR grant project in Basic Skills.

B. Teaching - Elementary School

1. Fourth Grade Teacher - Michigan Avenue Elementary School, St. Cloud, Florida, September 1974-June 1975.
2. Title I Reading Teacher - Water Valley Elementary School, Water Valley, Mississippi, September 1971-June 1974.
3. First Grade Teacher - Ross E. Jefferies Elementary School, St. Cloud, Florida, September 1969-June 1971.

C. Evaluation

1. Office of Medical Education, College of Medicine, University of Florida (Spring/Summer 1976). Major responsibilities consisted of curriculum development, evaluation of student progress, evaluation of courses, and contributions to evaluation designs and instrumentation for special projects.
2. Evaluator/Reading Consultant - Rawlings Elementary School, Summer Reading Program 1976 and 1977. Directed teachers involved in planning and evaluating summer reading program for grades one through five.

D. Research

1. Research Graduate Assistant - College of Education, University of Florida (Fall/Winter/Spring 1975-1976). Assisted in data collection and analysis for Basic Skills Project for State Department of Education.

IV Honors

Nominated for Teacher of the Year 1974-1975, Michigan Avenue Elementary School, St. Cloud, Florida.

V Thesis and Dissertation

- A. Lubet, Susan P. A study of the effectiveness of concentrated syllabication instruction as a means of increasing word recognition in fourth grade pupils. Unpublished Master's Thesis, 1975.
- B. Dissertation: Determining Instructional Reading Level: An Investigation of the relationship among standard cloze tests, multiple choice cloze tests and Informal Reading Inventory.

VI Professional Memberships

International Reading Association

IV Professional Memberships--(contd)

Association for Supervision and Curriculum Development  
American Educational Research Association  
National Council on Measurement in Education

VII Graduate Courses Taken

A. Major Area Courses

The School Curriculum  
Instructional Theory and Research  
Curriculum Theory and Research  
Bases of Curriculum and Instruction Theory  
Linguistics in Reading Instruction  
Reading in the Subject Areas  
Remedial Reading Practicum  
Diagnostic Reading Practicum  
Diagnosing Difficulties in Reading  
Trends in Elementary School Reading  
Trends in Elementary School Language Arts  
Practicum in Clinical Diagnosis  
WISC in Reading Instruction  
Research in Reading  
Seminar in Reading

B. Minor Area Courses

Tests and Measurement  
Fundamental Research Procedures in Education  
Quantative Foundations of Educational Research (research design and statistics through analysis of variance)  
Advances Quantative Foundations of Educational Research (Multiple Regression)  
Theories of Measurement  
Seminar in Advanced Test Theory  
Evaluation of Educational Products and Systems  
Practicum in Educational Research

VIII References

\*William R. Powell, Professor, College of Education, University of Florida, Gainesville, Florida 32611 (904) 392-0760

\*\*Linda M. Crocker, Assistant Professor, College of Education, University of Florida, Gainesville, Florida 32611 (904) 392-0712

Authur Lewis, Professor, College of Education, University of Florida, Gainesville, Florida 32611 (904) 392-0761

\*Chairman and major advisor

\*\*Minor area advisor



VIII References--(contd)

Thomas Fillmer, Professor, College of Education, University of Florida,  
Gainesville, Florida 32611 (904) 392-0760

Charles Brian, Principal, Michigan Avenue Elementary School, St. Cloud,  
Florida 32769 (904) 892-5184

Summary of Activities (1979-1980)  
(including Current Work in Progress)

TEC

Conducted two day course on Content Area Reading in Naples for the elementary grades.

Worked in four different sessions with school volunteers in Polk County on important aspects of reading and ways to help children with reading problems.

SPECIAL PROJECTS

Designed and executed a study to assess the readability level of the individual items on the third, fifth, eighth, and eleventh grade State Assessment Tests. Readability estimates are based on difficult words, sentence length, and sentence complexity.

Designed a project to more effeciently train teachers and future teachers to place students at their instructional reading level using the informal Reading Inventory. This study involves making training tapes of children speaking with Black dialect, children from a Hispanic background who speak English as a second language, and children who speak standard English.

A departmental study involves examining several variables to determine if the GRE cut-off score generally used for acceptance into the Master's Program in Reading is accurate in predicting students who will successfully complete their Master's degree.

PROFESSIONAL IMPROVEMENT

User's course in SAS familiarizing users and potential users for SAS with procedures and format for successful utililation with computer.

#### PROFESSIONAL IMPROVEMENT--(contd)

An Advanced Graduate Seminar in Reading/Language Arts is offered each quarter for Ph.D. Students and interested faculty. Participation in this seminar has been very stimulating.

Workshop on "Grantsmanship" explaining the fine points of grant application and processing. As can be seen under Grant Proposals in this summary, information gained in this workshop was very helpful and motivating.

#### GRANT PROPOSALS

Researching the feasibility of teaching several dyslexics to read using the Opticon. The Opticon is a machine currently being used with blind and low vision adults and children. It takes a page from a book and raises the letters, presenting a tactile image. Research is being documented to request a grant from the government to explore the possibility of teaching severe reading disability students to read using this form of tactile mode. Dyslexics are included in Title IX as handicapped students.

#### PUBLICATIONS

"Can Multiple Choice Cloze be Used to Predict Instructional Reading Level?" Multiple Choice Cloze is compared to standard cloze and the information Reading Inventory as a predictor of instructional reading level. Correlational information suggests that standard cloze and multiple choice cloze measure different forms of reading comprehension.

"Looking for Accurate Placement: The Betts and Powell IRI Criteria Reexamined" The Betts and Powell criteria for determining instructional reading level were applied to 100 students' IRI scores in second, fourth, and sixth grades. Students were placed at the same instructional level by both criteria only 55% of the time. The Powell criteria placed students at a higher instructional level in every instance. The possible effects of this situation are examined.

"Assessing the Readability Level of Individual Test Items" The procedure and results of applying a new readability formula to items are presented. The formula is applied to each item on the Florida State Assessment of Basic Skills at the third, fifth, eighth, and eleventh grade levels. The areas of Mathematics and Language Arts are both evaluated.

"The T-Unit, A New Variable Contributing to Readability Estimation" The T-Unit is explained and used as a contributing factor in determining the readability level of third, fifth, eighth, and eleventh grade prose. T-Units and sentence length are compared as measures of sentence complexity.

APPENDIX E  
CLIENT AND PROJECT HISTORY, INTRAN CORPORATION





4555 WEST 77TH STREET • MINNEAPOLIS, MINNESOTA 55435 • 612/835-5422

March, 1980

## CLIENT AND PROJECT HISTORY

OFFICE OF RESEARCH  
AMERICAN COUNCIL ON EDUCATION  
WASHINGTON, D.C.  
(202) 833-4752

Dr. Alexander W. Astin  
Dr. Alan E. Bayer  
Dr. John A. Creager  
Dr. Jack E. Rossmann

### Cooperative Institutional Research Program

#### Annual Freshman Survey: 1971-73

Processing each fall of approximately 320,000 questionnaires completed by college freshmen. (Conducted by UCLA after 1973.)

#### CUNY Follow-up: 1971

A study of open admissions via a follow-up questionnaire to 5,000 freshmen of 1970.

#### Follow-up of 1961 Cohort: 1971

A ten-year follow-up of 60,000 from the 1961 freshmen class.

#### Follow-up of 1966 Cohort: 1971

A five-year follow-up questionnaire was mailed to approximately 60,000 of the 1966 Freshmen Class.

#### Follow-up of 1968 Cohort: 1972

A questionnaire was mailed to 104,500 of the 1968 Freshmen Class.

#### National Faculty Survey: 1972

A survey of 108,700 college and university faculty.

#### Follow-up of 1969 Cohort: 1974

A newsletter was mailed to 88,000 freshmen from 1969 — in preparation for a follow-up survey.

#### GAO Military Academies Study: 1974

A study of attrition in the five U.S. military academies; questionnaires were administered to 14,000 cadets and mailed to 11,000 drop-outs.

U.S. CONFERENCE OF MAYORS  
1612 K STREET, N.W.  
WASHINGTON, D.C. 20006

Robert Hill  
Robert Bothwell

#### VETS (Veterans Education and Training System): 1971

Design of an information-gathering and processing system and an OCR-scannable form.

UNIVERSITY OF MICHIGAN  
INSTITUTE FOR SOCIAL RESEARCH  
ANN ARBOR, MICHIGAN 48106

Center for Political Studies

(313) 763-1346

Dr. Warren Miller  
Rayburn Howland  
Dr. Barbara Ferral  
Dr. Arthur H. Miller

Convention Delegate Study: 1972

Survey of 4,300 delegates of both parties to the National Conventions.

Post-Election Study: 1976

An extensive instrument used for interviewing a panel of 2,400 voters nationwide.

Survey Research Center

(313) 763-5496

Dr. David Lingwood  
Dr. Jerald G. Bachman  
Richard Rice

Opinions of Youth Study: 1973

Longitudinal survey of 5,000 high school students in the Detroit area involving two questionnaires.

Youth Conservation Corps: 1973

Printing and processing a total of 7,000 answer sheets for two tests used by Youth Conservation Corps: GATB Booklet and Environmental Educational Pretest.

Monitoring the Future: 1975, 1976

Development and production of five lengthy questionnaires given to a sample of 20,000 in 130 high schools nationwide regarding youths' use of drugs and alcohol. In 1976, a follow-up study was also done.

Center for Organizational Development

University of Michigan Staff Members Survey: 1977

A lengthy questionnaire was mailed to the nearly 10,000 staff members of the university.

Survey of Organizations: 1977 (ongoing)

An "environmental inventory" type of instrument which is typically administered to employees of industry.

Survey of Management Beliefs and Concepts: 1978

A new instrument — administered in conjunction with the Survey of Organizations.

Command Climate Questionnaire: 1979

A scannable answer sheet was developed for this instrument administered to approximately 12,000 personnel in the Army.

UNIVERSITY OF MICHIGAN  
SCHOOL OF NURSING AND  
INSTITUTE FOR SOCIAL RESEARCH  
ANN ARBOR, MICHIGAN 48109

Joyce Crane  
JoAnne Horsley  
Donald C. Pelz  
(313) 763-9934

Conduct and Utilization of Research in Nursing

A Survey of Nursing Schools in the state of Michigan, with large questionnaires completed by approximately 6,000 nurses and administrators.

RMC RESEARCH CORPORATION  
7910 WOODMONT AVENUE  
BETHESDA, MARYLAND 20014

Robert H. Crosby  
(301) 656-2702

Statistical Survey of Elementary Schools: 1972-74

Instrument design, nationwide pretest, and processing of questionnaires for district and school personnel, teachers, and students.

U.S. EMPLOYMENT SERVICE  
(TEST DEVELOPMENT SECTION)  
601 D STREET, N.W., Rm 8408-B  
WASHINGTON, D.C. 20213

Dr. Beatrice Dvorak  
Dr. Robert Droege  
Mr. Marlin Ferral  
(202) 376-6525

Basic Occupational Literacy Test (BOLT)

Sole distributor to the Employment Security agencies in 50 states of the materials for this test for disadvantaged adults; scoring service also provided for the 41 Test/Level/Forms.

General Aptitude Test Battery (GATB)

Officially-approved supplier of materials and scoring services to the 50 states and other agencies for this widely-used series of tests.

NATIONAL RESEARCH COUNCIL  
NATIONAL ACADEMY OF SCIENCES  
2101 CONSTITUTION AVENUE, N.W.  
WASHINGTON, D.C. 20418

Porter Coggeshall  
Dr. Betty D. Maxfield

Survey of Doctoral Scientists and Engineers: 1973, 1975

Follow-up survey of 60,000 Ph.D.s developed for Commission on Human Resources.

AMERICAN TECHNICAL ASSISTANCE CORP. and  
GENERAL RESEARCH CORPORATION  
7655 OLD SPRINGHOUSE ROAD  
McLEAN, VIRGINIA 22101

R. William Rae  
Dr. James Lubalin  
(703) 790-5252

Army Surgeon General Study: 1973

Survey of 7,500 personnel on ten Army bases regarding the use of alcohol and drug abuse treatment centers.

GED TESTING SERVICE  
OFFICE ON EDUCATIONAL CREDIT  
AMERICAN COUNCIL ON EDUCATION  
ONE DUPONT CIRCLE, N.W.  
WASHINGTON, D.C. 20036

Dr. Jerry W. Miller  
Mr. Jerry Walker  
Mrs. Hazel Ripple

Provide materials and scoring service for the GED Tests (High School Equivalency Exams), 1973-75.



RICHARDSON, BELLOWS, HENRY & CO.  
1140 CONNECTICUT AVENUE, N.W., SUITE 612  
WASHINGTON, D.C. 20036

Frank W. Erwin  
James W. Herring  
(202) 659-3755

Manager Profile Record

Development of materials, scoring, and reporting service for this BIB instrument used by big industry as an evaluation tool in the selection and appraisal of top-level management.

Registrant Record-I: 1975

Biographical Inventory Blank administered to participants of the U.S. Department of Labor's WIN program.

Early Experience Questionnaire-3A: 1976

Instrument administered to recruits under a program developed for the Army Research Institute.

Enlistee Profile: 1975

A scannable, short-form, Biographical Inventory Blank was designed and printed in April 1975 for RBH's contract with the U.S. Army Research Institute.

Supervisory Profile Record

Development of materials and scoring and reporting services for this new BIB instrument used by industry as an evaluation tool in the selection and appraisal of first-line management.

CANADIAN DEPT. OF MANPOWER & IMMIGRATION  
MANPOWER DIVISION, COUNSELING & TESTING  
305 RIDEAU STREET  
OTTAWA, ONTARIO K1A 0J9

E. P. Sloan, Chief  
Art Monsebraaten  
Dr. Terry Clement  
(613) 996-3922

Scoring of all GATB tests administered at all Canadian Manpower Centers across the country.

ARTHUR D. LITTLE, INC.  
ACORN PARK  
CAMBRIDGE, MASSACHUSETTS 02140

Dr. Anton Morton  
Mr. Lyle Grindle  
(617) 864-5770

DoD World-Wide Drug Study

Printing and processing of two large questionnaires for world-wide study on the use of drugs in the Armed Services; 20,000 questionnaires administered at 41 military bases.

ABT ASSOCIATES, INC.  
55 WHEELER STREET  
CAMBRIDGE, MA 02138  
(617) 492-7100

Peter S. Miller  
John Doucette  
Robert Goodrich  
Elizabeth Proper

Handicapped Institutions Survey: 1974

Printing, mailing and processing of "Survey of Public and Private Facilities Providing Services to Severely Handicapped Children and Youth" for U.S. Office of Education.

Title I Evaluation: 1976, 1977

Design and processing of Classroom Rosters and Classroom Activity Logs.

GRADUATE SCHOOL OF EDUCATION  
U.C.L.A.  
320 MOORE HALL  
LOS ANGELES, CALIFORNIA 90024  
(213) 825-1925

Dr. Alexander W. Astin  
Margo R. King  
Dr. Allan M. Carter  
Dr. Marsha D. Brown

Annual Freshman Survey: 1974-79

In 1974, the Cooperative Institutional Research Program transferred from ACE. Intran has continued to process this survey each year under U.C.L.A. auspices.

NSF Study: 1974

Follow-up questionnaires were mailed to approximately 100,000 students from the 1967, 1968 and 1969 CIRP Cohorts.

U.S. DEPARTMENT OF DEFENSE  
DEFENSE MANPOWER DATA CENTER (formerly MARDAC)  
300 NORTH WASHINGTON STREET  
ALEXANDRIA, VIRGINIA 22314

Dr. Frank G. Harding  
Dr. John Goral  
Dr. Kenneth C. Scheflen  
(703) 325-0540

Survey of Personnel Entering Active Service: 1974, 1975, 1976, 1979

Printing and processing of survey administered at Armed Forces Entrance Examination Stations to: 11,000, 13,000, 28,000, and 40,000 (in two administrations) for these four years respectively (1979: in conjunction with The Rand Corporation).

Post-Election Voting Survey: 1976

Survey of approximately 20,000 military and civilians in government service.

Survey of Federal Procurement Workforce: 1977

A questionnaire administered by the Federal Procurement Institute to an inter-agency sample of approximately 12,000.

Survey of Retired Military Personnel: 1977

A mailout survey to a sample of 14,000.

Biannual Military Personnel Survey: 1978-79

In conjunction with The Rand Corporation: a survey of 90,000 enlisted personnel and officers, utilizing four large questionnaires administered at over 4,500 sites around the world.

HIGHER EDUCATION RESEARCH INSTITUTE, INC.  
924 WESTWOOD BOULEVARD, SUITE 850  
LOS ANGELES, CALIFORNIA 90024  
(213) 478-6556

Dr. Alexander W. Astin  
Dr. Helen S. Astin  
Dr. Lewis C. Solmon

NIE Study of the Use of Education in Careers: 1974

A follow-up study of 12,000 from the 1961 CIRP Cohort.

Study of the Humanities: 1975-76

An in-depth survey of those in the humanities and social science fields; this study collected data from a sample of over 5,000 PhDs and 12,000 graduate students.

Study of Financial Aid in Higher Education: 1975

Additional data were collected from the 1975 Freshman Survey in support of HERI's contract with the USOE.

Faculty Mobility Study: 1976

A survey of 2,000 faculty in over 100 colleges and universities across the country.

Project of Education, Work, and Leisure: 1976-77

A study funded by the NIE involving a survey of 33,000 from the 1970 CIRP Cohort.

Survey of Mobility and Non-traditional Careers of PhDs in Science and Engineering: 1977

A study of the education and career experiences of approximately 19,000 scientists funded by the National Science Foundation.

A National Study of Student Progress: 1977

A 1977 follow-up survey for the USOE of 40,000 1975 college Freshmen.

Survey of Highly Trained Public Sector Employees: 1978

A study for the NEH of the non-academic careers of doctorate holders.

Survey of Master's Degree Granting Departments: 1979

A questionnaire collecting information from 3,000 graduate programs granting Master's degrees in 24 selected fields — a study sponsored by the NSF and the NEH to assess the objectives of the Master's degree programs today.

OFFICE OF PROGRAM EVALUATION AND RESEARCH  
DEPARTMENT OF EDUCATION  
STATE OF CALIFORNIA  
721 CAPITOL MALL  
SACRAMENTO, CALIFORNIA 95814

Dr. Alexander Law  
Dr. Dale Carlson  
Dr. Richard K. Hill

(916) 322-2200

California Assessment Program: 1975, 1976

Printing and processing of the Reading Test administered to nearly 600,000 second and third graders each year. This project involved the distribution of over 800,000 tests to 935 school districts.



NATIONAL SCHOLARSHIP SERVICE AND  
FUND FOR NEGRO STUDENTS  
1776 BROADWAY  
NEW YORK, NEW YORK 10017

Dr. David B. Kent  
Mrs. Maritza Myers

(212) 757-8100

Student Referral Systems: 1975-77

Printing and processing of student applications and production of referral reports for students interested in health careers in New York and New Jersey, and (through NSSFNS's satellite offices in Atlanta and Philadelphia) students throughout the Southeast and the Philadelphia area.

AMERICAN INSTITUTES FOR RESEARCH  
1791 ARASTRADERO ROAD  
PALO ALTO, CALIFORNIA 94302

Dr. Bruce E. Everett

(415) 493-3550

Study of Bilingual Education: 1975-77

Design, printing, and processing of approximately a dozen different tests in support of this nationwide study for the USOE.

SRI INTERNATIONAL  
333 RAVENSWOOD AVENUE  
MENLO PARK, CALIFORNIA 94025

Dr. Jane A. Stallings

(415) 326-6200

Classroom Observation Instruments: 1975-77

Processing four times a year of three different large booklets of classroom observation data in support of Office of Child Development projects.

Classroom Observation Instruments: 1978

Two additional observation instruments designed and processed: for a Day Care Study and for a Secondary Schools Study.

OREGON DEPARTMENT OF EDUCATION  
DIVISION OF SPECIAL PROGRAMS  
942 LANCASTER DRIVE N.E.  
SALEM, OREGON 97310

Dr. John L. Major  
Dr. Barbara Cole

(503) 378-3074

Oregon Fourth Grade Mathematics Assessment: 1976

Printing, distribution, and scoring on a statewide basis. A large machine scorable test booklet was developed for this project.

Oregon Statewide Assessment: 1978

Development, printing, distribution, collection, scoring, analysis, and reporting at the student, school, district and state levels. Nine tests were involved, three at each of three grade levels, encompassing approximately 75,000 students.

DIVISION OF CURRICULUM AND INSTRUCTIONAL SERVICES  
SUPERINTENDENT OF PUBLIC INSTRUCTION  
STATE OF WASHINGTON  
OLYMPIA, WASHINGTON 98504

Dr. Gordon B. Ensign  
(206) 753-3449

Statewide Math Assessment: 1976

Printing and scoring of machine-scorable test booklets administered to approximately 10,000 Fourth Graders.

NORTHWEST REGIONAL EDUCATIONAL LABORATORY  
710 S.W. SECOND AVENUE  
PORTLAND, OREGON 97204

Dr. Dean Nafziger  
Dr. William J. Wright  
(503) 248-6949

Alaska Statewide Achievement Test: 1976, 1977

Printed and scored tests for NWREL's contract with the State of Alaska for the Statewide Instructional Support System. Mathematics and Reading tests were given to students in Fourth and Eighth Grades.

BOARD OF EDUCATION  
JEFFERSON COUNTY  
BIRMINGHAM, ALABAMA 35203

Mrs. Mary H. McKinnon  
(205) 322-7741

JefCoEd Reading Skills Inventory, Levels 1-4: 1976

Development and publishing of a reading tests battery: Intran's first test publishing effort.

In addition to this test publishing, Intran has performed test scoring and extensive additional printing for Jefferson County.

FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH  
AND DEVELOPMENT  
1855 FOLSOM STREET  
SAN FRANCISCO, CALIFORNIA 94108

Mr. Jeffrey Moore  
(415) 565-3013

Classroom Observation Instrument: 1976-77

In support of their extensive study on Teacher Effectiveness, printed and processed a form used in classroom observation.

INSTITUTE FOR DEMOGRAPHIC AND ECONOMIC STUDIES  
155 WHITNEY  
NEW HAVEN, CONNECTICUT 06510

Dr. Stephen P. Dresch  
Mr. Daniel A. Updegrove  
(203) 436-1474

Survey of Experiences Since High School: 1976

A very extensive questionnaire was mailed to 8,000 from an ACT sample from the early 1970's — in support of a USOE contract. This survey involved an elaborate study of the effects of financial incentives.

Second IDES Survey of Experiences and Plans: 1978

An equally extensive follow-up questionnaire was mailed to 5,200 respondents to the first survey.

COUNCIL FOR THE NATIONAL REGISTER OF  
HEALTH SERVICE PROVIDERS IN PSYCHOLOGY  
1200 - 17th STREET, N.W.  
WASHINGTON, D.C. 20036

Dr. Alfred M. Wellner  
Dr. David Mills

(202) 833-7568

Survey of Provision of Health Services in Psychology: 1976

A questionnaire was mailed to over 26,000 psychologists across the nation, producing a data file for over 18,800.

AMERICAN PSYCHOLOGICAL ASSOCIATION  
1200 - 17th STREET, N.W.  
WASHINGTON, D.C. 20036

Mr. Thomas Willette  
Dr. Joy Stapp  
(202) 833-7658

1976 Human Resources Survey

An extensive questionnaire was mailed to 10,000 APA member, with one follow-up mailing. This survey achieved a 74.4% response rate.

1978 Human Resources Survey

A similar survey effort is planned for 1978.

BUREAU OF EDUCATIONAL ASSESSMENT  
LOUISIANA STATE DEPARTMENT OF EDUCATION  
BATON ROUGE, LOUISIANA 70804

Dr. Rebecca Contois  
Mr. Sam Parnese

Louisiana State Assessment: 1977

Development and publishing of Reading and Mathematics Tests for Grades 3, 7, and 10. Pilot Edition administered to a sample of 25,000 students across the state. Scoring, reporting, and analysis also were a part of Intran's contract.

INSTITUTE FOR DEVELOPMENT OF  
EDUCATIONAL ACTIVITIES  
1100 GLENDON AVENUE  
LOS ANGELES, CALIFORNIA 90024

Dr. Kenneth Sirotnik  
Mrs. Bette Overmann

(213) 477-6033

Study of Schooling in the U.S.: 1976-77

An expansive and extensive study of the condition of education on all levels and from all points of view in the public schools of the U.S. Instrumentation encompasses development and scoring of nine different questionnaires, including two in Spanish. Study operational in five school districts in the spring of 1977 with expansion planned for 19 additional districts.

Study of Schooling in the U.S.: 1977-78

A continuation of the aforementioned study involving eight additional school districts.



SCHOOL OF EDUCATION  
STANFORD UNIVERSITY  
STANFORD, CALIFORNIA 94305

Dr. John Crawford  
Mr. Nicholas Staybrook  
(415) 497-3895

Classroom Observation Instruments: 1977

Processing of SRI Observation Procedures booklets for the Center for Research and Development in Teaching.

PERSONNEL DECISIONS RESEARCH INSTITUTE  
2415 FOSHAY TOWER  
821 MARQUETTE AVENUE  
MINNEAPOLIS, MINNESOTA 55402

Dr. Marvin D. Dunnette  
Dr. Norman Peterson  
Ms. Janis Holtzman  
(612) 339-1600

Youth Experience and Attitude Questionnaires: 1977

Design, printing and processing of two large questionnaires to be administered to approximately 20,000 high school students.

Job Activities Questionnaires

Processing of answer sheets for questionnaires administered to employees and their supervisors in over 100 insurance companies.

Job Effectiveness Questionnaires

An extension of the same project: approximately 8,000 clerical jobs evaluated in over 100 life insurance companies.

LANGLEY-PORTER NEUROPSYCHIATRIC INSTITUTE  
(UNIVERSITY OF CALIFORNIA)  
401 PARNASSUS  
SAN FRANCISCO, CALIFORNIA 94143  
DR. HERBERT DORKEN

Dr. James T. Webb  
The Children's Medical Center  
1735 Chapel Street  
Dayton, Ohio 45405  
(513) 461-4790

Survey of Health Service Practices by Licensed/Certified Psychologists: 1977

An extensive, in-depth questionnaire to be mailed to over 12,000 psychologists in 10 states.

NEW YORK DIVISION OF SUBSTANCE ABUSE SERVICES  
TWO WORLD TRADE CENTER - 67th FLOOR  
NEW YORK, NEW YORK 10047

Dr. Bruce Johnson  
Dr. Gopal Uppal  
(212) 488-3974

Periodic Assessment of Drug Abuse Among Youth

A survey of approximately 40,000 high school students in the state of New York.

Alcohol and Substance Use Among College Students: 1979

A survey of approximately 15,000 students at colleges and universities throughout the state of New York.

UNIVERSITY OF CALIFORNIA, IRVINE  
OFFICE OF THE VICE-CHANCELLOR FOR  
UNIVERSITY AND STUDENT AFFAIRS  
IRVINE, CALIFORNIA 92717

Dr. Maurice Salter  
Dr. John C. Hoy  
Vice Chancellor  
(714) 833-5461

A Survey of 8,000 Alumni/Alumnae of UC Irvine.

NORTH CAROLINA DEPARTMENT OF EDUCATION  
DIVISION OF RESEARCH  
217 WEST JONES STREET  
RALEIGH, NORTH CAROLINA 27602

Dr. William Brown  
Dr. Robert Evans

(919) 733-3809

North Carolina Minimal Competency Pilot: 1978

Acquisition, packaging, and distribution of standardized publisher tests, design and printing of compatible answer sheets, scoring and reporting of approximately 86,000 public and non-public eleventh grade students.

MOUNDS VIEW PUBLIC SCHOOLS  
EVALUATION, RESEARCH, AND TESTING  
2959 HAMLINE AVENUE NORTH  
ST. PAUL, MINNESOTA 55112

Dr. Robert Crumpton  
Ron Brand

(612) 636-3650

Survey of Drug and Alcohol Use

A survey administered to approximately 6,000 high school students in Independent School District No. 621.

CIVILIAN PERSONNEL FIELD OPERATIONS AGENCY  
DEPARTMENT OF THE ARMY  
FORRESTAL BUILDING, ROOM 5H063  
WASHINGTON, D.C. 20314

Mr. Conrad Lacy

(213) 693-8786

Civilian Personnel Surveys (1977-78 & 1978-79)

Questionnaires administered to civilian employees and supervisors: an army-wide study and studies of individual Army installations.

MINNESOTA RESEARCH & DEVELOPMENT CENTER  
DEPT. OF VOCATIONAL & TECHNICAL EDUCATION  
145 PIEK HALL - UNIVERSITY OF MINNESOTA  
159 PILLSBURY DRIVE S.E.

Deena Allen  
Ron Dryer

(612) 376-3538

Vocational Needs Assessment

Developing and processing scannable forms in support of a research project investigating Vocational Needs Assessment in three states.

MINNESOTA DEPARTMENT OF EDUCATION  
723 CAPITOL SQUARE BUILDING  
ST. PAUL, MINNESOTA 55101

Dr. William McMillan

(612) 296-6002

Minnesota State Assessment in Reading and Social Studies: 1977-80.

Printing, distribution, collection, scoring, and analysis on a statewide basis of test booklets and answer sheets at three grade levels. Reporting results of approximately 25,000 students at the school, district, and state levels.

CONTROL DATA CORPORATION  
8100 34th AVENUE SOUTH  
BLOOMINGTON, MINNESOTA 55440

Dr. Ronald Page  
(612) 853-5715

Occupational Analysis Questionnaire: 1978

A 12-page scannable booklet, to study the job requirements of software programmers, administered to 4,000 programmers and systems analysts throughout the company.

HUMAN RESOURCES RESEARCH ORGANIZATION  
(HumRRO)  
300 NORTH WASHINGTON AVENUE  
ALEXANDRIA, VIRGINIA 22314

John Richards  
(703) 549-3611

1978 Post-Election Survey

A survey questionnaire was mailed right after the November election to a military sample of 17,500, a sample of 7,500 in the State Department, and 2,500 other civilian government personnel. This survey primarily studies the use of the Absentee Ballot by government employees stationed away from home.

PERSONNEL DECISIONS RESEARCH INSTITUTE  
2415 FOSHAY TOWER  
821 MARQUETTE AVENUE  
MINNEAPOLIS, MINNESOTA 55402

David Bownas  
Leaetta Hough  
(612) 339-1600

Coast Guard Job Task Analysis: 1978

Three large questionnaires were developed, converted to scannable instruments, and administered to 7,000 Coast Guard personnel to study the job requirements of three ratings in the Coast Guard.

FTC Professional Activities Description Questionnaire: 1979

A scannable 8-page answer booklet was developed for this instrument administered to approximately 2,000 professionals in the Federal Trade Commission. The requirements and characteristics of seven professional job categories will be analyzed in this project.

Plant Operator Task List: 1979

A 20-page instrument administered for the Edison Electric Institute to approximately 4,000 power plant operators across the nation for purposes of analyzing the requirements and characteristics of the power plant operator job. The research design also involves a required abilities and characteristics component, also a scannable form.



GRADUATE SCHOOL OF EDUCATION  
U.C.L.A.  
320 MOORE HALL  
LOS ANGELES, CALIFORNIA 90024

Dr. C. Robert Pace  
(213) 825-8331

College Student Experiences Questionnaire: 1979

An instrument for use by institutional researchers in higher education to learn more about how students spend their time — a help in providing insight to administrators and faculty. In its first trial, the 8-page scannable instrument administered to approximately 12,000 students at 14 colleges in the spring of 1979.

ARIZONA DEPARTMENT OF EDUCATION  
1535 WEST JEFFERSON STREET  
PHOENIX, ARIZONA 85007

Mr. Steve Stephens  
(602) 255-5387

Arizona Statewide Achievement Testing: 1978, 1979

Distribution, collection, scoring and reporting at the student, classroom, school, district, county, and state levels. Approximately 75,000 third and fifth grade students were administered a publisher test requiring custom reporting and analysis for approximately 1600 classrooms in 600 schools at each grade level. A total of 196 school districts participated in the testing program.

GEORGIA DEPARTMENT OF EDUCATION  
156 TRINITY AVENUE, S.W.  
ATLANTA, GEORGIA 30303

Dr. Stanley Bernknopf  
(404) 656-2661

Georgia Statewide Assessment Program: 1979-80

Development and printing of test booklets, answer sheets and supplementary materials, distribution/collection, scanning/scoring, and reporting of criterion-referenced test results in reading, mathematics, and career development for approximately 255,000 fourth, eighth, and tenth grade students. Additional services provided for an optional testing program at grades two, three, and six involving approximately 100,000 students.

CALIFORNIA DEPARTMENT OF EDUCATION  
OFFICE OF PROGRAM EVALUATION AND RESEARCH  
721 CAPITOL MALL  
SACRAMENTO, CALIFORNIA 95814

Dr. Dale Carlson  
(916) 322-2200

California Assessment Program: 1980, 1981

Design and printing of 30 forms of the Survey of Basic Skills administered to approximately 305,000 third graders each year. Responsibilities include the distribution of over 400,000 machine-scorable booklets to approximately 1,000 school districts; the subsequent collection and processing of test booklets; and analysis of results obtained from matrix-sampling design.

OFFICE OF THE LOS ANGELES COUNTY  
SUPERINTENDENT OF SCHOOLS  
TEST DEVELOPMENT CENTER  
9300 EAST IMPERIAL HIGHWAY  
LOS ANGELES, CALIFORNIA 90242

Dr. John Martois

(213) 922-6304

Los Angeles County Test Development Center: 1979 - ongoing

Provision of design, printing, distribution and collection, processing and Rasch analysis services in support of the Test Development Center's contracts to provide locally-established Basic Skills Assessment programs. In addition to services to local school districts, the project includes the Department of Defense Dependents Schools' Basic Skills Assessment program involving approximately 80,000 students at seven grade levels at nearly 300 school sites around the world.

**THE END**



**THE END**