

distribution for sendmail items = (31766,)

The only way to find out the distribution is to jump to the link and then jump to the origin statement - you'll find the distribution list there. If it's a message without a link you can type in the number followed by a comma for the link and it will take you to a file containing a bunch of messages including the one you typed the number for. It has the distribution listed in the first statement. This terminal is not doing well (typing letters other than the ones I'm typing - really!) hope you can read this... SUSAN/FEED

1

FEED 3-FEB-75 16:04 31783

distribution for sendmail items - (31766,)

(J31783) 3-FEB-75 16:04;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /KM([INFO-ONLY]) FEED([INFO-ONLY])
; Sub-Collections: SRI-ARC; Clerk: FEED;

Acknowledgement of (31780,) dir request

Your request has been received and we'll try to have them up by next Monday at the latest. I'll send a message when they are completed.
SUSAN/FEED

Acknowledgement of (31780,) dir request

(J31784) 3-FEB-75 16:27;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /AAB([INFO-ONLY]) LAC([INFO-ONLY])
CKM([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: FEED;

Confusing prompt in Usersubsystem MESSAGE

This prompt will surely confuse DNLS users when/if they get to using the Message subsystem in DNLS:

1

After typing "c m" you see "Copy Message (File) OK/T/B/T: "

1a

As near as I can figure it if you hit a CA, it's taken as OK, anything else is taken as TYPEIN of a filename.

2

Is there some way to fix up this prompt before the office-1 users start getting into this subsystem?

3

JMB 3-FEB-75 17:45 31785

Confusing prompt in Usersubsystem MESSAGE

(J31785) 3-FEB-75 17:45;;; Title: Author(s): Jeanne M. Beck/JMB;
Distribution: /FDBK([ACTION]); Sub-Collections: SRI-ARC FDBK;
Clerk: JMB;

One more time on NSRDC Idents

Susan/FEED- Here we go again. Please set up the following idents, I think all the information is here this time.

	1
Robert D. Archer Jr.	1a
Code 332	1a1
Naval Surface Weapons Center	1a2
White Oak Lab	1a3
Silver Spring, Md, 20910	1a4
Tel: 202-394-1909	1a5
Dir: NAVIMP Delivery: Online	1a6
Paul C. Bishop	1b
Code 731E	1b1
Naval Coastal Systems Lab	1b2
Panama City,,Florida 32401	1b3
Tel: 703-663-8789	1b4
Dir: NAVIMP Delivery: Online	1b5
Harold Doerfel (no middle initial)	1c
Code 8501	1c1
Naval Air Development Center	1c2
Warminster, Pa 18974	1c3
Tel: 215-672-9000 x2424	1c4
Dir: MATHSCI Delivery: Online	1c5
David F. Eliezer	1d
Code KXE	1d1
Dahlgren Lab	1d2
Naval Surface Weapons Center	1d3

One more time on NSRDC Idents

Dahlgren, Va. 22884	1d4
Tel: 703-663-8430	1d5
Dir: MATHSCI Delivery: Online	1d6
James J. Goertz	1e
Naval Electronics Lab, Center	1e1
San Diego, Ca. 92152	1e2
Tel: 714-225-7144	1e3
Dir: MATHSCI Delivery: Online	1e4
J.G. Noel	1f
Code 5200	1f1
Naval Electronics Lab, Center	1f2
San Diego, Ca. 92152	1f3
Tel: 714-225-7287/7260/7282	1f4
Dir: NAVIMP Delivery: Online	1f5
John B. Smith	1g
Naval Research Lab,	1g1
Washington, D.C. 20375	1g2
Tel: 202-767-3190	1g3
Dir: MATHSCI Delivery: Online	1g4
Eugene, P. Stemple	1h
Code K0E	1h1
Naval Surface Weapons Center	1h2
Dahlgren Lab	1h3
Dahlgren Va. 22448	1h4
Tel: 703-663-8178	1h5

One more time on NSRDC Idents

Dir: NAVIMP Delivery: Online	1h6
Robert, A. Unger	11
Naval Undersea Center	111
San Diego, Ca, 92152	112
714-225-2252	113
Dir: NAVIMP Delivery: Online	114
Mary Lou Blessing	1j
Naval Surface Weapons Center	1j1
White Oak Lab	1j2
Silver Spring, Md, 20910	1j3
Tel: 202-545-6700	1j4
Dir: NAVAPS Delivery: Online	1j5
Robert A. Fleming	1k
Naval Electronics Lab, Center	1k1
San Diego, Ca, 92152	1k2
714-225-7372	1k3
Dir: NAVAPS Delivery: Online	1k4
Connie Heitmeyer (no middle initial)	11
Naval Research Lab	111
Code 5403	112
Washington, D.C. 20375	113
Tel: 202-767-3381	114
Dir: NAVIMP Delivery: Online	115

I would also like to set up the following group idents (or whatever you call them) for distributing documents under the journal system,

2

One more time on NSRDC Idents

NETIMP: ILA, FGB, ELA, GE2, JJZ, ARCHER, BISHOP, NOEL, STEMPLE, UNGER, HEITMEYER	2a
NETAPS: JMS, RHP3, EHC, FGB, BLESSING, FLEMING	2b
MATHSCI: FGB, EHC, AH, DOERFEL, ELIEZER, GOERTZ, SMITH	2c
NALCON: ALL OF THE ABOVE	2d

I would also like all of the idents within a group to be made valid users of the directory of the same name WITH THE EXCEPTION OF THE NALCON DIRECTORY. Please let the NALCON directory stay as it is for the time being. 3

To make life really interesting, I would like at some point to rename the MATHSCI directory to NAVMGT if possible. The problem is that there are archived files out there that we want to save. Is it possible to also rename the archive directory? 4

Please let me know. If I've managed to totally confuse you, please give me a call. Thanks. 5

Frank 6

One more time on NSRDC Idents

(J31787) 4-FEB-75 07:33;;; Title: Author(s): Frank G. Brignoli/FGB;
Distribution: /FEEDBACK([ACTION]) ; Sub-Collections: NIC FEEDBACK;
Clerk: FGB;

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UNGER, HEITMEYER 2a
- NETAPS: JMS, RHP3, EHC, FGB, BLESSING, FLEMING 2b
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Frank 6

FGB 4-FEB-75 07:37 31788

One More Time on NSRDC Idents

(J31788) 4-FEB-75 07:37;;; Title: Author(s): Frank G. Brignoli/FGB;
Distribution: /ILA([INFO-ONLY]); Sub-Collections: NIC; Clerk: FGB;

DAP 4-FEB-75 08:05 31789

user-progs

request for information on the current status of user programs.

user-progs

I have recently tried to use a number of the programs in <user-progs>. Some work just fine (e.g., sortnum, lowercase); others (e.g., index, letter) not at all. I realize that the transition to NLS-8 caused many of these problems, but I thought most of them would have been cleared up by now. Is work in progress? Which user-progs are currently operational, and which should be up when? At the moment I'm particularly interested in index, but I'd like to know generally what to expect.

1

DAP 4-FEB-75 08:05 31789

user-progs

(J31789) 4-FEB-75 08:05;;; Title: Author(s): David A. Potter/DAP;
Distribution: /FEEDBACK([ACTION]) DAP([INFO-ONLY]) NDM([
INFO-ONLY]) ; Sub-Collections: NIC FEEDBACK; Clerk: DAP;

Response to potential use of TTYs for standby service

I would appreciate it if you would keep me informed of any action taken in regard to having TTYs available for standby use. Although I've attempted to maintain equipment for ad hoc use by SRI slot users there are times when the demand for devices exceeds supply. I don't think that demand for a TTY as a keyboard device would be high however. At best it would serve as an "emergency" alternative.

1

This is an appropriate time to mention that ISG has 3 TI-725s and the SRI slot has a TI-735. Potentially any (or all if circumstances permit) of these terminals are available for short term use by ARC if the need is "strong".

2

There also has been some interest expressed (by Steve Port, TAD) in using paper tape as an I/O medium -- an alternative that is currently not "recommended" for NLS users. Any action in this direction then would also be of interest to me.

3

MAP2 4-FEB-75 09:15 31790

Response to potential use of TTYS for standby service ,

(J31790) 4-FEB-75 09:15;;; Title: Author(s): Michael A.
Placko/MAP2; Distribution: /DCE([ACTION]) JCN([INFO-ONLY]) ;
Sub-Collections: NIC; Clerk: MAP2;

Response to (31763,) offquota stuff

I haven't been able to reproduce the problem you had with offquota logins. There are a couple of things to check if it happens again. First the load you have to look at is the middle number from a systat - not CTRL T. Second, when this happens link to someone (feedback or peters@ri-arc or roetter) and we'll look at some other things which should help see where the problem is. As for your displeasure with the offquota system Jim Norton is the one to deal with - he has of course seen your original message. If it does happen again please try to get in touch with one of us so we can try to track it down.
Susan/FEED

1

Response to (31763,) offquota stuff

(J31791) 4-FEB-75 14:54;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /JCN([INFO-ONLY]) CKM([INFO-ONLY])
TEH([INFO-ONLY]) KM([INFO-ONLY]) THP([INFO-ONLY]) RWM([INFO-ONLY]) JNH([INFO-ONLY]) FEED([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk; FEED;

Coordination with Home Office

I have the following courses scheduled:	1
Wed 5-FEB-75DNLS basic course	1a
Dr. Licklider - ARPA (tutorial)	1a1
2 p.m.--3:30 p.m.	1a1a
(part of course that can be covered in 1.5 hours)	1a1a1
Thurs 6-FEB-75TNLS basic course	1b
Bertrand & coworkers - SRI-WASH (2 or 3 people)	1b1
8:30 a.m.--12 noon	1b1a
Week 10-14 FEBTNLS Basic course & 2nd course (if possible)	1c
AFDSC--section of Carlson's NSW group (8 people)	1c1
Mon 10-FEB-758:30 a.m.--4 p.m.	1c1a
Tues 11-FEB-758:30 a.m.--12 noon	1c1b
Fri 14-FEB-758:30 a.m.--12 noon (contingency schedule)	1c1c
[2 full person-days]	1c1d
Week 18-21 FEBArchitects meeting	2
Can I come to Calif?	2a

Coordination with Home Office

(J31792) 4-FEB-75 19:26;;; Title: Author(s): Jeanne M. Beck/JMB;
Distribution: /JHB([INFO-ONLY]); Sub-Collections: SRI-ARC; Clerk:
JMB;

Response to (31783,)

Thanks - yes your suggested method for accessing the distribution of a sendmail item works, but it is rather cumbersome, I suggest it would be better to have the distribution as part of the information placed in the initial file or if that is unacceptable, then at least have a common method from messages and documents - ie, have a link in the first line of a message, for instance (31791,31791) , so that a Jump to Link and a Print Statement would work in both cases.
Regards, Keith.

1

KM 5-FEB-75 06:31 31793

Response to (31783,)

(J31793) 5-FEB-75 06:31;;; Title: Author(s): Keith McCloghrie/KM;
Distribution: /FEED([INFO-ONLY]) KM([INFO-ONLY]) ;
Sub-Collections: NIC; Clerk: KM;

L10 Support

To do the budget work, I will need L10 support. Should I learn
L10 myself or use Dean?

1

RA3Y 5-FEB-75 08:48 31794

L10 Support

(J31794) 5-FEB-75 08:48;;; Title: Author(s): Raymond R.
Panko/RA3Y; Distribution: /JCN([ACTION]) RA3Y([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: RA3Y;

Helpful Hint from your Friendly AKW,

I am sending this to everyone in the RADC Group. This is done this way because it is easy to do and I don't know the individuals' level of capability. If it is too hard or too easy or of no interest - forget it. Or send a message and ask for help.

Helpful Hint from your Friendly AKW,

SENDMAIL SUBSYSTEM:

1

One of the easiest ways to use the SENDMAIL Subsystem is to use the INTERROGATE command. To do this goto SENDMAIL and type i<CR>. Then all you need to do is to fill in the information asked for. When the system asks "Type of Source" it waits for a reply of the type = file, plex, branch, message or whatever. If for example you have a file loaded but you want to send only the first branch, you should type b then when it asks A: type i<CR>

1a

One of the problems encountered in the use of the SENDMAIL Subsystem is that when you use the INTERROGATE command you are asked Forward for Action to: and Forward for Info Only to: You may not want to send it to anyone for action or perhaps just for action and not for information. If you do not just type a space, (This may only be a problem for IMLAC users.)

1b

One alternate way of using the SENDMAIL Subsystem is to copy the SENDMAIL form into a file created especially for the purpose. This done by inserting the SENDMAIL form into the file using the command insert SENDMAIL form at A: To do this (in BASE) simply type i<SP>s and stipulate the origin statement for the address followed by <CR>. After inserting the form delete all the items that you will not be using. It is especially important to delete the entry for NUMBER: if you use the form for sending messages. To send a message just insert text into the form in the appropriate places, edit as you do with any NLS file, Go to SENDMAIL and use the Process the SENDMAIL form command,

1c

NOTA BENE: the message itself must be all one single statement without any carriage returns in it. Any new statement or any carriage return is read by the system as the end of the message and any information following that is lost.

1c1

After your message is inserted into the SENDMAIL form and edited to your satisfaction (DO NOT UPDATE) you have to go to the SENDMAIL subsystem and Process the form. To do this type gs<CR>. This takes you to the SENDMAIL (Formerly JOURNAL) Subsystem.

1d

Assuming that your SENDMAIL form is in the file which you have loaded, all you need do now is to type p and insert the address or bug the form or just give a <CR>. This should then be followed by another <CR>. After the mail has been sent, type q<CR> to go back to BASE. If you have not updated the file containing the SENDMAIL form, you can now delete modifications to get the form in its original pristine condition. This makes it ready for a new message the next time you want to send one.

1e

EJK 5-FEB-75 11:11 31795

Helpful Hint from your Friendly AKW,

(J31795) 5-FEB-75 11:11:;;; Title: Author(s): Edmund J. Kennedy/EJK;
Distribution: /RADC([ACTION]); Sub=Collections: RADC; Clerk: EJK;

Analysis of NLS

Sue

1

I was talking with Martin Hardy about the type of system needed to support the NLS system. At NSA we are planning to bring up a TENEX which will support NLS. Do to many adverse conditions our initial system will be about one-third the size of OFFICE-1 or approximately the size of OFFICE when it first came up.

1a

1b

What I am looking for is some of the stats that Martin said have been collected about loading of the CPU and system in general by NLS and the various subsystems. We are interested in this so that we can get an idea how many people we can support with our small complex. Also the info will hopefully help us decide where we need to upgrade first.

1c

1d

If you could find the info or at least tell me what files or documents contain such info it would be very helpful. Basically we're interested in the following:

1e

For an individual using the following subsystems what % of the CPU and what % of the system do they use?

1e1

Some subsys like L10 may be approx but how do they affect the load and therefor response of the machine?

1e2

Subsys of interest:

1e3

TNLS

1e3a

DNLS

1e3b

OUTPUT PROCESSOR

1e3c

JOURNAL

1e3d

RSEXEC

1e3e

NDDT

1e3f

L10

1e3g

CML

1e3h

CONTENT ANALYZERS

1e3i

Analysis of NLS

USER PROGS	1e3j
IF POSSIBLE breakdown of base, calc, send, mess, prog, publ subsystems of NLS	1e3k
DEX	1e3l
SNMSG	1e3m
If I have missed any you think might be important, analysis of those we appreciated also,	1e4 1f
We appreciate your help in directing us to the info we need. Please send any messages to Jess Hill or to me using SNMSG to TAGGART@OFFICE=1. Thanks again. Jess says HI,	1g 1h
Stephen Bailey	1i
TAGGART@OFFICE=1	1j

Analysis of NLS

(J31796) 5-FEB-75 11:28;;; Title: Author(s): Steve P. Bailey/SPB;
Distribution: /SRL([ACTION]) SPN([INFO-ONLY]) ; Sub-Collections:
NIC; Clerk: SPB;

THE FLORIDA CATALOG OF TEACHER COMPETENCIES 1

First Edition 2

Tallahassee, Florida 3

January 1, 1973 4

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Board of Trustees of Internal 6

Improvement fund for the Use and 7

Benefit of The State of Florida, 1973 8

This document was prepared by the staff of the Florida Catalog of Teacher Competencies Project, under the direction of Norman R. Dodi, Florida State University. It was entered into the NLS Journal system by David A. Potter, Educational Testing Service, Princeton, New Jersey. 9

MASTER LIST		10
(t01)	provide a system of almost continuous feedback (both positive and negative) to students about their performance.	11
(t02)	relate subject matter to each learner's interests, needs, and abilities.	12
(t03)	provide appropriate verbal and non-verbal cues in lecture.	13
(t04)	administer a variety of standardized tests, following to criterion all procedures necessary for attaining reliable results with groups tested.	14
(t05)	through conferring with parents, foster a constructive parent-teacher relationship in the interest of the pupil.	15
(t06)	elicit student reactions as valid data for evaluation of his effect on the students	16
(t07)	accept the fact that he is hated by others due to his skin color and indentify situations in which this fact applies.	17
(t08)	give directions which are understood by students.	18
(t09)	organize the supplies, equipment, and other physical resources within the classroom for maximum utility by students.	19
(t10)	respond to others such that they feel secure enough to express themselves honestly and openly.	20
(t11)	diagnose students relevant knowledge, feelings, and attitudes prior to instruction.	21
(t12)	conduct learning experiences in which students explore the origins and development of values, attitudes and beliefs, how they change, and the impact they have on human relationships.	22
(t13)	analyze the effect of his own teaching behavior.	23
(t14)	design a series of lessons to reinforce a student's reading strengths and correct a student's reading weaknesses.	24

(t15)	evaluate the validity and reliability of a test for assessing specific learning outcomes.	25
(t17)	evaluate the results of the use of specific strategies with individual students.	26
(t18)	write a socio-drama or open-ended reaction story which can be successfully acted out by pupils in a role-playing situation.	27
(t19)	involve the students in teacher-pupil planning.	28
(t20)	accurately interpret the results of standardized tests administered in specific classroom situations.	29
(t21)	incorporate student data obtained during instruction in the planning of subsequent activities.	30
(t22)	analyze patterns of human interrelationships existing in a classroom by use of structured observational techniques.	31
(t23)	diagnose the self-concept of students through the use of appropriate instruments.	32
(t24)	help the learner determine for himself appropriate directions and activities to achieve learning objectives.	33
(t25)	provide experiences that will help students understand and develop their own values.	34
(t26)	identify the feelings (and reasons for those feelings) that another has toward him.	35
(t27)	accept critiquing and supervision from peers.	36
(t29)	identify the prerequisites for a given learning objective.	37
(t30)	plan a program for developing a more responsive learning environment by identifying the deficiencies in responsiveness of the environment and devising strategies for eliminating those deficiencies.	38
(t31)	organize a set of specific objectives into a defensible teaching sequence and give a rationale for the order.	39

(t32)	identify elements of his own teaching behavior that need improving,	40
(t33)	provide experiences which will help students find values and activities which are non-work oriented,	41
(t34)	choose appropriate standardized tests for use in specific classroom situations,	42
(t35)	operate all A-V equipment required for classroom instruction,	43
(t36)	remain open to and accepting of all students in a multi-racial classroom setting,	44
(t37)	accurately record an accident where school or teachers liability may be involved,	45
(t38)	structure experiences so students will examine the nature of, and reflect concern for, contemporary social, political, and economic trends and issues,	46
(t39)	establish an emotional climate in the classroom which pupils perceive as open to their responses,	47
(t40)	design efficient procedures for handling routines in the classroom,	48
(t41)	provide relevant examples which illustrate given subject content,	49
(t43)	control the interactive factors for large-group learning,	50
(t44)	utilize total curriculum in preparing students to combat environmental strangulation,	51
(t46)	conduct lessons that result in student mastery of specified objectives,	52
(t47)	involve parents, paraprofessionals, and professional personnel in the school instructional program,	53
(t48)	work cooperatively with fellow teachers,	54
(t49)	use a variety of evaluative techniques to assess all aspects of a student's learning,	55
(t50)	resolve discipline problems within the framework of state and local policies,	56

(t51)	provide activities by which students can evaluate their own progress.	57
(t53)	provide an atmosphere that will help students sense intrinsic worth in themselves.	58
(t54)	construct pre and post teaching diagnostic instruments.	59
(t55)	evaluate student performance according to criteria based upon objectives.	60
(t56)	accept the thinking strategy of a student as legitimate for him at that time.	61
(t58)	help students become open, responsive individuals.	62
(t59)	help students respond critically and constructively to one another.	63
(t60)	allow students to express feelings, attitudes and interests.	64
(t61)	help students to gain and understanding of self-needs motives, experiences, and motivations.	65
(t62)	help students to achieve a sense of self.	66
(t63)	select the most appropriate medium or media to present a concept.	67
(t65)	prepare teaching plans to provide experiences so that children will gain both enjoyment and knowledge.	68
(t67)	select instructional materials according to the criteria established by child development theorists.	69
(t68)	redirect questions to pupils to help them diagnose their own learning problems.	70
(t70)	Vary the pattern of lesson presentation by switching to different interaction styles.	71
(t71)	select a variety of media and teaching techniques in order to utilize this media in arousing creativity in pupils.	72
(t72)	create an atmosphere encouraging open expression of attitudes.	73

(t74)	Keep abreast of current trends and developments in education, particularly in his own or related areas.	74
(t75)	develop individualized materials such that continuous pupil progress may be enhanced.	75
(t76)	construct transparencies and write an accompanying commentary.	76
(t78)	evaluate a variety of contemporary means for reporting pupil progress.	77
(t79)	assist guidance personnel by administering and analyzing tests, conferring with parents, etc.	78
(t80)	recognize pupils with those aspects of childhood, transcendence, and adolescence which retard normal learning.	79
(t81)	use diagrams in lesson presentation.	80
(t82)	develop competency in understanding children's oral speech.	81
(t83)	stimulate use of oral language.	82
(t84)	estimate a child's level of oral language development.	83
(t85)	establish home program for parents in oral language.	84
(t87)	accept pupils' individual difference.	85
(t90)	prepare, read, and interpret human growth profiles.	86
(t92)	motivate children to learn in a structured situation.	87
(t93)	work with the disadvantaged child.	88
(t95)	use manuscript writing in the preparation of charts, children's work sheets, and materials for the blackboard.	89
(t96)	use a previously prepared chart as a teaching device in a real or simulated situation.	90
(t97)	make consensus decisions in areas that may be controversial.	91

(t98)	operate a variety of audio-visual equipment.	92
(t100)	identify a learning handicap in a student.	93
(t101)	use the Education Index.	94
(t102)	record child behavior in terms of the objectives of each subject area.	95
(t103)	recognize the attainment of each subject when they are manifested in child behavior.	96
(t104)	write objectives that describe observable learning and objectives that describe behavior.	97
(t105)	use standardized tests and their evaluation.	98
(t106)	devise systems of assessing pupil achievement.	99
(t107)	select appropriate teacher-made and commercially prepared instructional materials.	100
(t108)	utilize community sources for information including available resource persons.	101
(t110)	match instructional activities with the objectives of the lesson, and the capabilities and interests of the students.	102
(t111)	provide the necessary amount of structure, organization and explanation for each learning activity to prevent undue confusion during the lesson.	103
(t113)	examine his own teaching style to assess its effectiveness.	104
(t115)	adhere to professional ethics.	105
(t118)	maintain a positive view of self.	106
(t119)	has respect for the dignity and worth of the individual.	107
(t120)	interact constructively with others.	108
(t121)	remain open to change.	109
(t122)	work with teachers across subject areas, and with other resource personnel.	110

Teacher Behaviors

(t124)	provide opportunities and guidance for decision-making,	111
(t125)	help students to evaluate themselves,	112
(t126)	help students become independent learners by providing opportunities and guidance,	113
(t127)	conceptualize abstract information in practical, operational terms,	114
(t128)	perform a defined task when requested,	115
(t129)	use simulation and academic games in the instructional program,	116
(t131)	use appropriate diagnostic tools in describing an instructional group's social structure,	117
(t132)	discriminate between types of classroom social-emotional climates and note the effect each has on the group's functioning,	118
(t133)	recognize that teacher values and norms are often quite different from the values and norms held by pupils,	119
(t134)	use interaction analysis to categorize and analyze teacher classroom behavior,	120
(t135)	interpret interaction analysis data with regard to patterns of teacher behavior, teacher role, and teacher style,	121
(t138)	compare speech patterns used in classroom with those expected at developmental level by the pupil speaking,	122
(t139)	identify pupils who might need the help of a speech therapist,	123
(t140)	give precise directions for carrying out any instructional activity,	124
(t141)	compare listening patterns of individual pupils with those expected at the developmental level represented by the pupil in question,	125
(t142)	analyze pupil behavior to determine levels of mastery in relation to ability,	126

(t143)	adapt curriculum materials in accord with the ability and mastery level of individual pupils.	127
(t144)	use media, equipment, supplies, and techniques appropriate to individual situations.	128
(t145)	adopt educational innovations where appropriate.	129
(t146)	prepare bulletin board displays.	130
(t147)	keep records, such as health and attendance records.	131
(t148)	demonstrate processes relevant to the subject area.	132
(t152)	find ways of dealing with conflict, in order that it does not incapacitate one's potential behavior effectiveness.	133
(t155)	explore with students the relationships among science, technology, and society.	134
(t157)	use assessment instruments and other techniques of assessment and observation.	135
(t158)	analyze quantitative data as to its degree of accuracy.	136
(t159)	use sophisticated quantitative techniques in investigations of scientific problems in the field of specialization.	137
(t160)	relate the results of experiments to the social and human problems of the day.	138
(t161)	interpret science in a manner that provides meaning to the science experience at the personal level.	139
(t162)	interpret science in a manner that promotes understanding of how and why man is dependent upon his environment.	140
(t163)	use instructional methodology compatible with the conceptual and investigative nature of science.	141
(t164)	reflect a sensitivity to the self-concept of others.	142

Teacher Behaviors

(t165)	promote student learning through reflection of sensitivity to student expressions, desires, and needs.	143
(t166)	respond positively to responsibilities for personal performance and professional growth.	144
(t167)	show sensitivity to individual student needs and differences and awareness of his rights and involvement in the total school community.	145
(t168)	provide opportunities for successful school experiences which develop a positive pupil self-image.	146
(t169)	adjust freely to varied environments and human situations.	147
(t170)	establish rapport with other school staff members.	148
(t171)	direct problem-solving and critical thinking activities through the examination of social issues.	149
(t172)	interpret maps and globes.	150
(t173)	interpret pictures, charts, graphs, and tables.	151
(t174)	relate instruction to pupils' store of in and out-of-school experiences.	152
(t175)	foster independent study with supervision.	153
(t176)	choose instructional materials compatible with course of study.	154
(t177)	adapt materials and methods to levels of learning ability of pupils.	155
(t178)	develop flexible assignments.	156
(t179)	encourage the recognition and formulation of problems to be solved in social living.	157
(t180)	use open-ended questions.	158
(t181)	seek help in identifying and alleviating causes of pupil difficulties.	159

- (t182) structure the learning environment adequately to give the needed security without curtailing freedom to work toward self-expression. 160
- (t183) maintain consistency as to what is expected of pupils without losing flexibility and adaptability to changing circumstances. 161
- (t184) establish ways to help parents understand the goals and procedures of the school. 162
- (t185) use innovative teaching techniques. 163
- (t186) invite the help of principal, supervisors, and peers if needed. 164
- (t188) diagnose possible student learning difficulties by studying student records. 165
- (t189) accept the feelings of students while holding the students responsible in the cognitive domain. 166
- (t190) manage discussion and other classroom activities so that the classroom is orderly. 167
- (t191) identify by name each student in the class by the end of three weeks. 168
- (t192) demonstrate his readiness for teaching by being present at his teaching station before his students appear. 169
- (t193) construct worksheets for teaching reading comprehension (subject material). 170
- (t194) identify problems that occur in student verbal communication. 171
- (t201) apply knowledge of the relationship of growth characteristics of children of a particular grade level to what can be expected of them musically. 172
- (t202) permit the gifted child to advance in accordance with his interests and skills. 173
- (t203) establish an atmosphere which stimulates students' interest. 174
- (t204) show enjoyment by her enthusiasm and expression. 175

(t205)	demonstrate complete command of the materials and activities used in teaching a particular lesson.	176
(t206)	isolate, discuss, and solve possible problem spots early in the instruction.	177
(t207)	use indirect teaching strategies effectively.	178
(t208)	develop in the pupil the ability to learn under his own initiative.	179
(t209)	design learning experiences which include opportunities for inquiry, discovery, and experimentation.	180
(t210)	ask questions that require other than rote memory to answer them.	181
(t211)	use ideas suggested by students to build lessons.	182
(t213)	provide appropriate experiences to promote reasoning.	183
(t214)	provide a relaxed atmosphere in which each child is free to learn at his own level, and advance at his normal pace.	184
(t215)	apply principles of reinforcement theory (behavior modification, contingency management).	185
(t216)	be an intellectual model for students.	186
(t217)	determine the appropriateness of student behavior.	187
(t218)	demonstrate attitudes, opinions, and emotions which help, rather than inhibit, the students' learning.	188
(t219)	arrange proper contingencies for various behaviors.	189
(t220)	establish a system of allocating resources.	190
(t221)	plan an educational program which will assist each student's career development.	191
(t222)	display an interest in learning.	192
(t223)	display scholarly abilities of research, analysis, and application of information processing to decisions.	193

Teacher Behaviors

(t224)	suppress immediate impulses to advance some long-range purpose.	194
(t225)	develop classroom rules and procedures which promote give-and-take among students and teachers.	195
(t226)	develop classroom rules and procedures which provide opportunity for independent choice and activity by students.	196
(t227)	increase the decision-making power of students by allowing them to make decisions and requiring them to live with the consequences.	197
(t228)	adjust her evaluation of a student as the student's performance and interests change.	198
(t229)	keep a relaxed, professional manner even when there are multiple demands upon her time and attention.	199
(t230)	give each student a sense of individual worth and importance by attention to events which the student considers important, by noticing the things which the student does best, by positive references to the student as a student, and by developing realistic self-evaluations based upon evidence of change and growth.	200
(t231)	classify student responses in order to determine whether they are appropriate for the learning objective.	201
(t232)	focus events upon the essential learning activities when there is a shortage of time.	202
(t235)	classify student behavior according to the degree that it contributes to learning objectives.	203
(t236)	avoid using punishment for incorrect responses during instruction.	204
(t237)	use rewards and reinforcers which are appropriate to the individual student.	205
(t238)	skillfully use different schedules of reward and reinforcement.	206
(t239)	arrange instructional materials so that they will be maximally accessible to the students.	207

Teacher Behaviors

(t241)	make a competent instructional response to the unique learning problems of each student,	208
(t242)	answer students' questions in such a way as to promote learning by the student,	209
(t244)	assess what the student learns outside of the school.	210
(t245)	observe the latency of student responses,	211
(t246)	deal with either very long latencies or impulsive responses,	212
(t247)	guide students to make creative responses as opposed to limited responses,	213
(t248)	develop indicators of student performance, student attitude, and student motivation during the times that the student is not in direct contact with the teacher,	214
(t249)	use examples and instances which are motivating because they relate to the students' career goals,	215
(t250)	provide instruction directly related to the saleable skills required, needed, or wanted by an individual student.	216
(t251)	reward appropriate behavior immediately after its occurrence,	217
(t252)	recognize and reward approximations of the ultimate performance objective,	218
(t253)	recognize varying attention spans of students,	219
(t254)	reward accomplishment rather than obedience,	220
(t255)	work cooperatively with students to develop individual study plans for each student,	221
(t256)	develop immediate and long-range plans for the total class, which take individual needs and plans into account,	222
(t257)	take exceptions to the systems when necessary,	223
(t258)	serve as an empathetic listener for students,	224

(t259)	serve as an agent for selective reinforcement of desirable types of pupil activity.	225
(t260)	conceptualize a model of individualized instruction as a basis for instructional decision-making.	226
(t261)	conduct individually prescribed instruction in the classroom.	227
(t262)	utilize feedback techniques -- use objective methods for analyzing teaching behavior and its outcomes.	228
(t264)	look upon his career with an expectation of learning.	229
(t265)	perceive his certificate as a license to practise, rather than as a release from any obligation to learn.	230
(t266)	use all the necessary technological aids, teaching materials, and instructional methods in the modern teaching collection.	231
(t267)	interact effectively with pupils.	232
(t268)	administer standardized tests.	233
(t269)	interpret standardized tests.	234
(t270)	use informal procedures for observing pupils.	235
(t271)	monitor his own behavior using some of the interaction analysis systems.	236
(t272)	apply theoretical knowledge in generating possible solutions to teaching problems.	237
(t273)	develop an experimental attitude toward his own teaching behavior.	238
(t274)	demonstrate a willingness to examine and evaluate his own teaching behavior.	239
(t275)	evaluate his own teaching behavior.	240
(t276)	demonstrate a willingness to modify his own teaching behavior.	241

Teacher Behaviors

(t279)	create an atmosphere where there is freedom for experimentation and evaluation.	242
(t283)	tolerate the hum of purposeful activity.	243
(t287)	promote warm rapport with the community.	244
(t289)	interpret new teaching techniques and procedures to the community.	245
(t290)	encourage parent workshops and classroom visits by parents.	246
(t299)	develop in pupils an awareness of the need for a valuational system based on human interrelatedness and interdependence, during which hard choices will have to be made and priorities established.	247
(t300)	channel curiosity and imagination after stimulation.	248
(t301)	deal with behavior problems in such a way as to minimize their effect on a student learning.	249
(t303)	improve curriculum and school programs by utilizing test results.	250
(t304)	prepare diagnostic readiness test.	251
(t305)	cope with unexpected interruptions in constructive ways.	252
(t306)	demonstrate qualities of leadership.	253
(t307)	utilize the sensory awareness (auditory and visual) most appropriate to the individual student.	254
(t308)	evaluate the student's language and speech pattern.	255
(t309)	establish rapport with students in order to achieve a successful learning program.	256
(t310)	utilize phonetic sounds and placement for diagnosis of standard and non-standard speech patterns.	257
(t311)	plan an effective, individualized program of therapy using diagnostic results.	258

(t312)	effectively cope with students' behavior and attitudes.	259
(t313)	present the same concept on a variety of levels.	260
(t314)	communicate effectively with teachers, and other professionals via speech and written reports.	261
(t316)	diagnose the cause of a pupil's incorrect work.	262
(t317)	outline an inductive sequence of experiences to carry out specified objectives.	263
(t318)	select justifiable manipulative materials for developing a classroom concept.	264
(t319)	outline a deductive sequence to carry out a given objective.	265
(t321)	identify appropriate learning aids for a given grade level.	266
(t322)	form immediate and long range therapy goals.	267
(t323)	develop a program that is student oriented in a threat-free atmosphere.	268
(t324)	identify skills basic to a content area.	269
(t325)	establish positive relationships in limited period of time.	270
(t326)	design lessons that result in student mastery of specific skills in clothing construction.	271
(t327)	turn a mistake into a positive teaching-learning situation by analyzing the reasons for the mistake and making suggestions and encouraging discoveries.	272
(t328)	develop individual materials, such as games, to reinforce skills.	273
(t329)	use mathematical language that is both accurate and appropriate for a particular classroom situation.	274
(t330)	motivate student to assume responsibility for self-improvement.	275

(t331)	communicate freely and indefensively with parents for the purpose of improving the image of public school education.	276
(t332)	engage in activities with other teachers which will promote his own personal skill development.	277
(t333)	set an attitude of confidence and hope in students.	278
(t334)	provide periodic opportunities for pupils to view, discuss, and evaluate student art work and the art work of professionals.	279
(t335)	reproduce sound elements representing letters or groups of letters of the alphabet.	280
(t336)	select materials of an appropriate reading level and interest to correct specific reading weaknesses found through diagnosis.	281
(t337)	construct models to represent certain aspects of reality.	282
(t339)	identify motives for behavior; beliefs; present predispositions.	283
(t340)	select from the conditions in general those specific conditions that are part of the problematic situation.	284
(t341)	evaluate scientifically unfounded beliefs well enough to recognize superstitions in herself and in students.	285
(t342)	judge student outcomes partly in terms of the method used to obtain them.	286
(t343)	formulate valid assumptions.	287
(t344)	adapt prescriptive programs as specific deficits are determined.	288
(t345)	encourage students to initiate self-directed learning.	289
(t347)	solicit (or utilize) student personal views to develop aesthetic judgment.	290
(t348)	adapt freely to varied environments and human situations.	291

(t349)	organize objectives so as to provide for a logical order of presentation.	292
(t350)	design a pretest to identify student placement.	293
(t351)	prepare reports that communicate information regarding individual student progress.	294
(t354)	synthesize, without editorializing, all students' opinions.	295
(t355)	demonstrate skill in mentally evaluating students' responses as the lesson develops by making assignments according to the students' expressed needs and motivations.	296
(t356)	identify the competencies needed for entry into an occupation.	297
(t357)	cluster and sequence related tasks in developing courses.	298
(t358)	assess the relevancy of course offerings.	299
(t360)	maintain an open door policy for student consultation.	300
(t361)	review student's autobiographies for information to aid in understanding the students.	301
(t362)	maintain ethical standards expected of a professional educator.	302
(t363)	use visual aids.	303
(t364)	use questions geared to the instructional objectives of the unit he is teaching.	304
(t366)	operate special equipment indigenous to specific special education.	305
(t367)	vary his procedural strategies in accordance with the changing situational factors such as time, space, material, and personnel.	306
(t368)	provide assignments which are continuous, varied, and challenging.	307
(t369)	provide incentives for the learning process by utilizing positive acceptable rewards and/or reinforcements.	308

Teacher Behaviors

(t370)	exhibit a sense of humor in situations where it can relieve the tensions and pent-up emotional strains of students.	309
(t371)	involve students in the teaching process by giving students responsibilities for direct and indirect instruction.	310
(t372)	make provisions for individual differences by providing learning activities to challenge the high-ability students, and remedial activities for low-ability students.	311
(t373)	construct an appealing display related to course objectives for each unit or combination of units.	312
(t374)	include a variety of test items in evaluation instruments.	313
(t375)	analyze test items for validity and reliability, utilizing basic statistical procedures.	314
(t376)	provide students with sufficient supplies for completion of teacher assignments.	315
(t377)	demonstrate consistency and objectivity in the conduct of classroom management procedures.	316
(t378)	enforce verbalized commitments by following through with promised procedures.	317
(t379)	demonstrate technical skill competence in instructional area.	318
(t380)	demonstrate effective student organization and control.	319
(t381)	motivate students by projecting an enthusiastic attitude.	320
(t382)	exhibit behavior in the classroom which is generally empathic, positively reinforcing, acceptant, and generally learner supportive.	321
(t383)	organize each class group in such a manner that each student will know what is expected of him.	322
(t384)	present a concept or principle through a demonstration.	323

(t385)	formulate and uphold acceptable student standards of behavior.	324
(t386)	utilize social interaction methodologies, such as role playing, panel discussion, buzz groups, and prepared skits.	325
(t387)	respond to children in a conflict situation.	326
(t388)	meet certain developmental and physical needs of children in the total day program.	327
(t389)	use improvised materials in areas where standard equipment and materials are not available.	328
(t390)	incorporate the requests of students into lesson plans.	329
(t391)	accept contributions by all students.	330
(t392)	provide ample opportunity for use of language by students.	331
(t393)	provide many real experiences to stimulate oral expression.	332
(t395)	demonstrate his complete control of students during all emergencies.	333
(t396)	use current technology relevant to the student's environment to illuminate concepts.	334
(t397)	discriminate the learning styles of individual students.	335
(t398)	modify instructional activities contingent upon student responses during that activity.	336
(t399)	present a lesson with a multimedia approach.	337
(t400)	make use of student's names in teaching.	338
(t401)	plan for skill progression at all levels of ability (as evidenced in written plans).	339
(t402)	take an active part in evaluating, and encouraging performance.	340
(t403)	utilize student ideas.	341
(t404)	use clear concise conducting gestures.	342

Teacher Behaviors

(t405)	identify a problem in the performance of a musician in order to give effective remedial instruction.	343
(t406)	identify problems of musical instruments in order to structure solutions.	344
(t407)	guide independent study with supervision.	345
(t408)	encourage the recognition and formulation of problems to be solved in social living.	346
(t409)	structure the learning environment to give needed security without curtailing freedom to work toward self realization.	347
(t410)	maintain consistency as to what is expected of pupils without losing flexibility or adaptability to changing circumstances.	348
(t411)	manage discussion and other classroom activities so that the classroom is orderly.	349
(t412)	redirect questions.	350
(t413)	give students the opportunity to express concerns and questions.	351
(t414)	provide situations in which students can demonstrate applications of acquired knowledge.	352
(t415)	provide for pupils a frame of reference in which to associate acquired knowledge.	353
(t416)	provide opportunities for students who desire to explore a field in greater depth.	354
(t417)	provide opportunities for successful school experiences which develop a positive pupil self-image.	355
(t418)	deal positively with adolescent voice problems.	356
(t419)	conduct (and rehearse) different musical groups of various age levels.	357
(t420)	construct learning experiences which enable students to achieve the behavioral objectives.	358
(t421)	construct a proficiency assessment which measures only the behavioral objectives of the class.	359

(t422)	use tutorial activities with teachers and pupils in terms of behaviorally stated objectives.	360
(t423)	use praise and constructive criticism effectively.	361
(t424)	be an empathetic counselor to a pupil.	362
(t425)	determine the attitude of the pupils toward the subject presented.	363
(t426)	make the classroom attractive and interesting.	364
(t427)	use questions to encourage student participation and divergent points of view.	365
(t428)	use non-directive methods to help students state beliefs.	366
(t429)	recognize deviations from normal health.	367
(t430)	encourage individuality and originality.	368
(t431)	stimulate the child to invent and create his own ideas.	369
(t432)	introduce students to many different media and forms of art.	370
(t433)	organize activities into a developmental sequence of experiences.	371
(t434)	use feedback information from individual students as a basis for modifying the message being communicated.	372
(t435)	guide students in independent learning activities.	373
(t436)	exhibit flexibility and inventiveness.	374
(t437)	interact positively with others.	375
(t438)	demonstrate sensitivity to community mores.	376
(t439)	establish rapport with students while retaining professional dignity.	377
(t440)	group students into flexible groups based on intellectual, emotional, and social growth.	378
(t441)	provide opportunities for peer interaction.	379

Teacher Behaviors

(t442)	interpret the school program to parents or other community members.	380
(t443)	integrate into lesson plans major concepts from other disciplines as they become relevant.	381
(t444)	work with tools, equipment, and AV materials in a proper manner.	382
(t445)	indicate the relationship of topic activities to topic objectives.	383
(t446)	decide from information on pupil record forms whether or not specific students have sufficient mastery or prerequisite behaviors to start a new topic.	384
(t447)	pose a problem to introduce an activity.	385
(t448)	demonstrate the required competencies for her subject area.	386
(t449)	coordinate the assessment of students' characteristics and progress in the teaching unit activities.	387
(t450)	maintain good home-school relations.	388
(t451)	keep abreast of advances in subject knowledge and instructional materials.	389
(t452)	determine when a student is adequately prepared to seek a part-time job.	390
(t453)	demonstrate to students the skills derived from related job experiences.	391
(t454)	conduct practical job-oriented learning experiences.	392
(t455)	motivate students to higher levels of performance.	393
(t456)	motivate and facilitate optimum learning in the subject area being taught by providing appropriate situations.	394
(t457)	relate subject matter content to everyday personal family living, and occupational experiences.	395
(t458)	apply safety laws and procedures.	396

Teacher Behaviors

(t459)	analyze an occupation to develop a course of instruction.	397
(t460)	demonstrate skills necessary for her subject.	398
(t461)	select educational textbooks and materials appropriate for (or related to) instructional objectives.	399
(t462)	conduct meaningful student-parent-teacher conferences.	400
(t463)	relate classroom instruction specifically to on-the-job training and/or project training.	401
(t464)	assist the student in assessing his career objectives.	402
(t465)	assist the student in assessing his achievement in relation to his aptitude and ability.	403
(t466)	present information to parents which will assist them in helping their children make realistic decisions (regarding careers).	404
(t467)	adhere to federal and state laws pertaining to distributive education students.	405
(t468)	exhibit a sensitivity to the personality of the individual pupil.	406
(t470)	involve the parents in curriculum planning in ways which are appropriate.	407
(t471)	work effectively with parents.	408
(t473)	exhibit desirable personal qualities and characteristics appropriate to teaching, including self-confidence.	409
(t474)	meet communication standards in speaking, writing, and listening required in his chosen field.	410
(t475)	properly use tools necessary for her subject.	411
(t477)	tolerate (and appreciate) differences from self; (i.e. values, language, patterns of behavior).	412
(t478)	develop cooperatively with pupils objectives for large units of study, daily class work, and special activities.	413

Teacher Behaviors

(t479)	work as a member of a team,	414
(t480)	focus attention on individual growth,	415
(t481)	encourage academic freedom for students in keeping with their maturity,	416
(t484)	identify perceptual abilities of students,	417
(t485)	identify motor abilities of students,	418
(t486)	assess student learning problems from overt behaviors and student products,	419
(t488)	prepare written specification forms for pupil performance,	420
(t489)	make constructive use of criticism,	421
(t490)	recognize personal limitations,	422
(t491)	work to improve educational opportunities for students,	423
(t492)	shape desired behavior,	424
(t493)	extinguish undesired behavior,	425
(t494)	update curriculum at specified intervals to account for technological advances,	426
(t495)	determine the affective variance of the students,	427
(t496)	devise his own system for improving classroom behavior,	428
(t497)	help students respond to visual aesthetic qualities (in the arts) and in the general environment,	429
(t498)	solder two wires,	430
(t499)	estimate the size of specimen in microscope field, and so on,	431
(t500)	maintain a healthy and safe environment,	432
(t501)	be sensitive to mixed feelings,	433
(t502)	instruct and supervise new teachers,	434

(t503)	revise an instructional sequence.	435
(t504)	effectively use various schedules of reinforcement.	436
(t506)	use a microscope.	437
(t507)	strip wire.	438
(t508)	bend glass tubing.	439
(t509)	mix acid and water properly.	440
(t510)	break glass tubing.	441
(t511)	polish a glass tube.	442
(t513)	identify the desired behaviors the child with a (speech and/or language) handicap should develop.	443
(t514)	accept (and understand) disabilities in himself and others.	444
(t515)	give respect and affection to children.	445
(t517)	evaluate performance of students in order to revise topics.	446
(t518)	map out logistics.	447
(t519)	provide illustrations necessary for his topics.	448
(t520)	interpret a map or graph for students.	449
(t521)	provide the appropriate information or direction that the student is seeking.	450
(t522)	elicit information or feelings for the group to consider.	451
(t523)	tolerate periods of lengthy silence while students think.	452
(t524)	model the types of behaviors desired as student behaviors.	453
(t525)	conduct various problem-solving operations and strategies.	454
(t526)	control her own actions.	455

(t527)	deal openly with the feelings of himself and others.	456
(t528)	facilitate the acquisition of satisfying self-expression and effective oral communication by each child in the public schools.	457
(t529)	prepare good follow through for assigned work.	458
(t530)	provide for smooth transitions between activities.	459
(t531)	demonstrate acceptable handwriting skills.	460
(t532)	interact effectively with staff.	461
(t533)	respond favorably to suggestions for improvement.	462
(t534)	focus on a problem to seek higher levels of thinking.	463
(t535)	provide a psychologically safe climate, i.e., security, sense of responsibility, adventurous, etc.	464
(t536)	express interest in what student is saying or trying to say.	465
(t537)	communicate with students, parents, and others.	466
(t538)	utilize technological equipment.	467
(t539)	demonstrate an open communicative style.	468
(t540)	satisfy routine social demands and situations.	469
(t541)	speak with an intelligent accent.	470
(t542)	provide a relaxed atmosphere.	471
(t543)	establish appropriate frames of reference for students.	472
(t544)	organize the instructional program.	473
(t545)	provide leadership.	474
(t546)	handle administrative details concerning class.	475
(t547)	show awareness of his attitudes.	476
(t548)	show awareness of his own behavior.	477

Teacher Behaviors

(t549)	show awareness of his own strengths and weaknesses.	478
(t550)	perform reinforcement operations.	479
(t551)	perform stimulant operations.	480
(t552)	perform interpersonal relations.	481
(t553)	provide stimulating ideas (topics) for discussions.	482
(t554)	employ a variety of approaches.	483
(t555)	utilize new information.	484
(t556)	identify the primary educational purpose reflected in each of his goals.	485
(t558)	choose appropriate analogy for illustrative purposes.	486
(t559)	make decisions concerning subsequent courses of action pertaining to specific educational objectives.	487
(t560)	exchange ideas and experiences with others (other school personnel).	488
(t562)	analyze group and individual strengths and weaknesses.	489
(t563)	keep a record of class and individual progress.	490
(t564)	develop an efficient pattern of work methods.	491
(t565)	develop alternative plans (on short notice).	492
(t566)	develop new activities as the needs appear.	493
(t567)	exhibit enthusiasm for school-sponsored events.	494
(t568)	pinpoint and find solutions to problems.	495
(t569)	diagnose the type and level of thought processes in children.	496
(t570)	use behavioral objectives.	497
(t571)	develop materials for a specific level of students.	498

(t572)	use individualized instruction effectively.	499
(t573)	assess current needs of the class.	500
(t574)	provide meaningful learning situations.	501
(t575)	support the efforts of other school personnel.	502
(t576)	refer students with speech (physical) and hearing problems to appropriate sources of aid.	503
(t577)	build favorable attitudes towards music.	504
(t578)	provide experiences for the student to develop motorskill competency.	505
(t579)	combine personal creativity with the ability to work with others to build education settings in which innovation is the norm.	506
(t580)	select teaching strategies in terms of the learner.	507
(t581)	discriminate cues from learners.	508
(t582)	use various rating methods.	509
(t583)	administer and score placement tests.	510
(t584)	identify a pupil's learning difficulties.	511
(t585)	judge pupil behavior within the theoretical framework of fundamental principles of human development.	512
(t586)	participate easily in class activities.	513
(t587)	freely exchange ideas with students.	514
(t588)	demonstrate an awareness of body, voice, and face as communicating instruments.	515
(t589)	develop techniques of communication with dance movement and stage composition.	516
(t590)	use proper first aid techniques in accidents.	517
(t591)	establish an environment for pupil communication in a variety of socio-cultural settings.	518

Teacher Behaviors

(t592)	select appropriate data sources and diagnose data relevant to the development of objectives for learners.	519
(t593)	protect students from physical and moral dangers with which they are not yet ready to cope.	520
(t594)	counsel students in the selection of activities that bring meaning to life.	521
(t595)	supplement lesson with relevant assignments.	522
(t596)	use discovery learning effectively.	523
(t597)	manipulate environment to create problems to be solved.	524
(t598)	lead discussions effectively.	525
(t599)	elicit suggestions from students.	526
(t600)	focus the discussion to minimize irrelevant digressions.	527
(t601)	assign leadership responsibilities according to student's abilities.	528
(t602)	anticipate reactions of students.	529
(t604)	present content effectively.	530
(t605)	improve thought processes of students, i.e. objective reasoning, divergent thinking, independent thought, critical thinking, problem solving, etc.	531
(t606)	maintain reasonable standards of conduct within the classroom.	532
(t607)	use indirect methods of instruction.	533
(t608)	utilize classroom facilities and resources effectively.	534
(t609)	point out implications of ideas.	535
(t610)	pace lecture on the basis of student response.	536
(t611)	ask thought-provoking questions (utilize questions to encourage participation).	537

Teacher Behaviors

(t612)	respond positively to student contributions.	538
(t613)	encourage students to participate in class (activities) (actively in class).	539
(t614)	encourage students to initiate learning activities.	540
(t615)	direct students' interests toward meaningful learning.	541
(t616)	work closely with parents (others) in helping students.	542
(t617)	administer remedial work effectively.	543
(t618)	constructively control student behavior.	544
(t619)	maintain control in difficult situations.	545
(t620)	prevent potential class difficulties.	546
(t621)	utilize available services to deal with student problems.	547
(t622)	administer test at appropriate time.	548
(t623)	give clear and complete instructions.	549
(t624)	arrange testing conditions to ensure maximal performance.	550
(t625)	use test results to improve instruction, or teaching effectiveness.	551
(t626)	keep accurate records of grades.	552
(t627)	evaluate students objectively.	553
(t628)	conform to institutional policies.	554
(t629)	vary teaching method effectively.	555
(t630)	maintain high interest level of class.	556
(t631)	develop realistic standards (of achievement) with each student.	557
(t632)	inform students of the basis for evaluation.	558

Teacher Behaviors

(t633)	elicit feedback (to reveal student understanding of lesson).	559
(t634)	recognize causes of unsatisfactory progress.	560
(t635)	evaluate own personal views.	561
(t636)	direct students' evaluation of own performance.	562
(t637)	use tests effectively.	563
(t638)	construct each test item to measure a specific behavior.	564
(t640)	select content appropriate for level of class.	565
(t641)	relate specific aims to general goals.	566
(t642)	organize lesson to facilitate learning.	567
(t643)	organize activities to use time efficiently OR teacher uses time efficiently.	568
(t644)	revise course material to insure timeliness.	569
(t645)	acknowledge student's academic and personal accomplishments.	570
(t646)	select activities to supplement basic text or other materials.	571
(t647)	evaluate thoroughly all types of learning.	572
(t648)	use appropriate intervals to evaluate progress with individuals.	573
(t649)	organize (analyze, synthesize, evaluate) data for use in instruction.	574
(t650)	design learning experiences which develop inquiry, decision-making and problem-solving skills.	575
(t651)	integrate knowledge drawn from several disciplines as a means of promoting an understanding of society.	576
(t652)	vary speech rate effectively.	577
(t653)	set good examples in use of language.	578

(t654)	state goals in terms of measurable changes in student's behavior,	579
(t655)	help students formulate objectives,	580
(t656)	select activities on basis of individual abilities and interests,	581
(t657)	explore with students the relationships between subject matter and society,	582
(t658)	use quantitative techniques in investigations of problems,	583
(t659)	guide students in inquiry processes within the field(s) of specialization,	584
(t660)	analyze and relate the results of educational experiments to current teaching problems,	585
(t661)	assist individuals in developing a rational basis for making value judgements,	586
(t662)	use a variety of instructional media, resources and materials to facilitate the learning of specific topics,	587
(t663)	reflect a sensitivity to the self-concept of others (by an inner security based on a positive self-concept),	588
(t664)	respond positively to responsibilities (for personal performance and professional growth),	589
(t665)	utilize appropriate principles of learning,	590
(t666)	select and use educational innovations effectively,	591
(t667)	organize practical learning experiences and create an environment conducive to learning,	592
(t668)	demonstrate decision making abilities,	593
(t670)	assist the student in assessing his (a) career objective, (b) achievement in relation to his aptitude and ability, (c) personal and social development,	594
(t672)	provide situations which motivate and facilitate optimum learning in the subject area being taught,	595

Teacher Behaviors

(t673)	utilize a variety of techniques and methods of teaching as well as instructional media to reach instructional objectives.	596
(t674)	utilize research in education in planning instruction.	597
(t675)	plan physical facilities and identify supplies and equipment needs consistent with program objectives.	598
(t676)	plan immediate and long-range program objectives.	599
(t679)	exhibit a positive self-concept.	600
(t680)	demonstrate an acceptable degree of knowledge and skill in the content area which he is teaching.	601
(t682)	effectively utilize teaching aids, methods, techniques, and media.	602
(t683)	establish an evaluation process which provides for continuing assessment of student progress, the instructional program, and self in relation to the learning process.	603
(t684)	formulate and implement long-range program goals, and assess progress toward their achievement.	604
(t686)	respond constructively to suggestions and criticism.	605
(t688)	cooperate with persons having different backgrounds.	606
(t690)	identify desired student behaviors.	607
(t693)	interact constructively with fellow workers.	608
(t695)	develop instructional objectives in cooperation with students.	609
(t699)	make home visits.	610
(t702)	encourage parents to become active participants in parent activities in the school.	611
(t705)	assist at book fairs, cake sales, etc.	612
(t706)	enlist parent volunteers for class trips, kindergarten registrations, library service, etc.	613

(t707)	assist parents with individual school problems.	614
(t708)	refer parents to appropriate school authorities.	615
(t712)	attend and participate in meetings of community organizations.	616
(t713)	participate in community fairs, art shows, etc.	617
(t715)	maintain guidance reference materials for staff.	618
(t717)	hold case conferences with appropriate professional personnel.	619
(t720)	assist with publications of Parent-Teacher Association bulletins.	620
(t723)	maintain appropriate library records.	621
(t724)	organize placement of books and materials for most effective use.	622
(t727)	screen pupils with special needs (identifying gifted, talented, under-achieving and potentially maladjusted children in need of testing for CRMD classes).	623
(t742)	distribute health survey forms.	624
(t747)	plan projects best suited to the individual needs of the children.	625
(t749)	organize index file for routine follow-up of children having remediable defects.	626
(t756)	notify supervisor when emergency arises.	627
(t773)	confer with individual parents when necessary.	628
(t780)	keep continuous inventory control of all equipment and materials.	629
(t781)	keep records of repairs and maintenance.	630
(t791)	plan with other teachers in cluster.	631
(t793)	individualize instruction.	632
(t801)	develop independence and autonomy on the student's part in all areas of the program.	633

(t802)	organize the classroom for small group and individual instruction.	634
(t803)	provide materials and activities appropriate to varying needs and abilities.	635
(t805)	survey the health and social needs of children.	636
(t806)	evaluate student's growth periodically in all academic areas.	637
(t814)	keep accurate records related to supplies.	638
(t819)	maintain an open door policy for consultation with parents.	639
(t820)	hold workshops with parents for the purpose of interpreting school programs and curriculum.	640
(t821)	supervise school aides.	641
(t822)	help school aides develop, implement, and evaluate guidelines for lunch, yard, and other duty assignments.	642
(t824)	supervise all milk and lunchroom records and collections.	643
(t827)	recognize the academic, social, and physical needs of children in the grade.	644
(t829)	evaluate plans with other teachers.	645
(t837)	develop a relationship with teachers which allows free exchange of ideas in deformatizing the classroom.	646
(t839)	encourage cooperation, team work and sharing within the cluster group.	647
(t840)	develop guidelines for evaluation.	648
(t843)	have conference with child.	649
(t844)	meet with parents.	650
(t845)	plan with children.	651
(t848)	group flexibly for special needs.	652

(t850)	help children develop systems for use and care of materials and books,	653
(t858)	take cues from children's difficulties,	654
(t859)	take cues from children's contributions and games,	655
(t862)	examine all toys and games to determine implications for concepts,	656
(t864)	place material within reach of children,	657
(t865)	consider physical needs, such as differently sized chairs,	658
(t867)	give a child a cubby, box or assigned area for personal possessions,	659
(t868)	rearrange room for "aloneness," partnership, small groups, large group, as need arises,	660
(t869)	display children's work,	661
(t871)	keep her desk away from the center of activity,	662
(t872)	allow for physical movement of children,	663
(t873)	see that children develop responsibility by participating in the care of the room,	664
(t874)	predetermine material necessary to carry out tasks,	665
(t875)	plan with school personnel and children to provide necessary materials,	666
(t876)	place material in appropriate learning centers,	667
(t877)	provide for and encourage flow between centers,	668
(t879)	create own materials,	669
(t882)	create systems and schedules for use of materials,	670
(t883)	create check-off systems,	671
(t885)	utilize human resources in the school,	672
(t887)	vary teaching; learning strategies: viewing, listening, questioning, searching, planning, role-playing, reporting, recording, drills, etc,	673

(t889)	schedule times for use of centers and materials,	674
(t890)	meet with cluster team to confer, plan, exchange ideas,	675
(t891)	meet with supervisors for guidance and for assistance,	676
(t892)	meet with supportive personnel: mental health team, music, art, health education, bilingual teachers, community coordinators, custodial help for purposes of planning and organization,	677
(t893)	relate subject matter content to everyday personal, family living, and occupational experiences,	678
(t894)	exhibit ability to work positively with individuals from different cultural, social, economic and ethnic backgrounds in achieving the goals,	679
(t895)	organize and work cooperatively with an advisory committee to provide a relevant program,	680
(t896)	enlist the cooperation, support, and active assistance of parents,	681
(t897)	demonstrate appreciation of the dignity and worth of the individual,	682
(t899)	plan with school aides and administrative assistants to utilize and facilitate learning experiences within lunchroom and playground activities,	683
(t980)	help child keep logs and records,	684
(t981)	apprize parents of goals for the child,	685
(t982)	listen to parents,	686
(t983)	identify his personal priorities in teaching, collect data regarding his teaching practices and acknowledge gaps which exist between the two,	687
(t985)	analyze (by systematic observation) interaction patterns of his teaching, prescribe for himself and achieve realistic goals of improvement in those patterns,	688

Teacher Behaviors

(t986)	seek personal knowledge of students.	689
(t988)	give individual attention to students in and out of classroom.	690
(t989)	give corrective feedback to students which is perceived as supportive by the students.	691
(t990)	analyze student behavior according to physiological development traits.	692
(t991)	manage classroom situations so students can work constructively at their own tasks while unrestricted in regard to movement around the classroom.	693
(t992)	identify and provide for the needs of different students for differing amounts and kinds of physical activity.	694
(t993)	construct lessons which effectively inform students about physiological development and about ways of coping with physical changes.	695
(t994)	identify the cognitive learning strategies of students according to developmental theory and personality theory.	696
(t995)	structure lessons which encourage divergent thinking in students.	697
(t997)	refrain from criticizing students openly through sarcasm or cynicism.	698
(t998)	whenever possible, praise in public and punish in private.	699
(t999)	provide multiple opportunities during the class hours for students to work together in groups of varying sizes and tasks.	700
(t1000)	provide opportunities for achieving success for all students, and work for the abolition of those aspects of the school system that reward only the few.	701
(t1001)	withhold support from social activities where rewards and notice are based on physical attributes possessed by the relative few (e.g., proms, beauty contests, etc.) and support those activities which minimize such attributes.	702

(t1002)	provide psychological "elbow room" within the class whenever possible.	703
(t1003)	take homeroom time to "discuss" with students their physical-skeletal changes and the social implications of these changes.	704
(t1004)	answer questions relating to sex in a comfortable, complete and unbiased fashion.	705
(t1005)	discuss and interpret present societal confusion regarding sex roles in the language of the student.	706
(t1006)	not be personally insulted by the student's need to be independent, often shown through the resentment of authority.	707
(t1007)	assess the vocational maturity of students according to developmental criteria.	708
(t1008)	apply theories of career development in working with students.	709
(t1009)	guide the student to an understanding of the relationships between dimensions of self (e.g., heredity, interest, values) and future work roles he may choose.	710
(t1010)	assist the student in clarifying his values relative to the world of work and in developing a personal work value hierarchy.	711
(t1011)	involve students in a rational career decision-making process.	712
(t1013)	participate in planning and implementing for students a systematic, exploratory program of occupational clusters.	713
(t1014)	guide students to the educational alternatives through which training for future work roles may be attained.	714
(t1015)	reinforce career development concepts throughout the curriculum.	715
(t1019)	develop instructional strategies in terms of learning theory.	716

- (t1021) collect "systematic observation" data on his own teaching, interpret it according to some teaching-learning theory, then prescribe for and achieve a change in one or more of his teaching behaviors. 717
- (t1022) provide adequate "rewards" for "on-task" behavior, rather than punishing for the opposite. 718
- (t1023) analyze patterns of interpersonal relationships existing in a classroom by use of structured observational techniques. 719
- (t1024) identify patterns of control in teacher-student and student-student groups, and select and use those patterns most conducive to effective group work. 720
- (t1025) recognize and make appropriate use of the pervasive nature of the leader's influence on the group's patterns of interaction, particularly in regard to the rejection or acceptance of values, goals, and individual members. 721
- (t1026) conduct group activities so as to demonstrate acceptance of this principle: when people have a voice in decisions that affect them, they function more effectively and they accept restrictions placed on their behavior. 722
- (t1027) identify and interpret the influence of his own non-verbal behavior in the classroom. 723
- (t1028) identify group roles played by self and others in different situations and interpret the role habits in terms of social needs of self and others. 724
- (t1029) deal with a variety of problems in group process. 725
- (t1030) utilize the pathways of communications which function between individuals and within groups. 726
- (t1031) encourage the free flow of communications so that all the data relevant to group choices is equally available to all members. 727
- (t1032) avoid strategies which polarize opinions and alienate members of a group from one another, and employ those which establish harmony and full use of personal resources. 728

(t1033)	suspend judgement in a task group and assume a perceptive attitude until the data of a problem suggest its solution,	729
(t1034)	develop and conduct activities which take into account the cultural similarities and differences among students,	730
(t1035)	identify cultural biases in his own belief system and analyze ways in which his biases affect his relationships with students of a cultural background different from his own,	731
(t1036)	conduct activities through which students can gain understandings and accepting attitudes,	732
(t1037)	incorporate community resources in the school program,	733
(t1038)	visit homes of students and use knowledge of home situations in planning school activities,	734
(t1039)	encourage parent involvement,	735
(t1040)	evaluate a school curriculum plan according to criteria derived from the developmental characteristics of transescent learners,	736
(t1042)	design and conduct exploratory experiences for students which involve them in making functional contributions of time and talent to the community,	737
(t1043)	use a variety of evaluative techniques to assess aspects of a student's learning other than subject matter mastery,	738
(t1044)	read, interpret and make use of current professional literature in curriculum and instruction,	739
(t1045)	use systematic observation techniques to analyze the effectiveness of instructional design,	740
(t1046)	evaluate the quality of teaching materials (before, during and after their use),	741
(t1048)	identify and evaluate resource possibilities using professional literature,	742

Teacher Behaviors

(t1049)	engage students in identifying, seeking out and evaluating resources for learning activities,	743
(t1050)	operate a variety of audio-visual equipment efficiently,	744
(t1051)	teach students the use of audio-visual equipment -- within the range of their capability,	745
(t1052)	make simple visual materials and teach students how to use them,	746
(t1053)	deal effectively with unusual classroom problems,	747
(t1054)	maintain a written (and mental) plan or procedures to be followed in case of emergencies that can be anticipated,	748
(t1055)	recognize gross symptoms of physical illness or disability (e.g., drug abuse, malnutrition, perceptual difficulties) which may indicate the need for referral of a student to other personnel,	749
(t1056)	recognize the kinds of student emotional difficulties which may represent a chronic learning disability requiring special professional attention,	750
(t1057)	identify administration policy regarding disruptive students and clarify to his satisfaction any related questions not covered by written policy,	751
(t1058)	counsel individual students, promoting self-direction through indirect guidance,	752
(t1059)	structure situations which encourage students to seek the teacher's counsel on non-academic matters as well as academic ones,	753
(t1060)	construct situations in which students can see clearly the difference between referral to adult authority, referral to peer group authority and to personal authority, and can make judgments as to which authority is appropriate for what circumstances,	754
(t1061)	help students learn techniques of sorting information, setting priorities and budgeting time and energy,	755

Teacher Behaviors

- (t1062) help students understand group process: group decision making, leadership skills, and peer relationships. 756
- (t1063) structure group activities in which the group must make decisions about objectives and task, about division of responsibilities and leadership; then provide feedback by which students can describe and analyze their decision-making activities. 757
- (t1064) conduct activities in which students learn and use techniques of giving and receiving helpful feedback. 758
- (t1065) conduct group activities in which peer pressure on the individual's values and actions are made evident to students. 759
- (t1066) work effectively in cooperative teaching situations with other teachers, paraprofessional and resource persons. 760
- (t1067) counsel students with non-controlling approaches (cf. Marie Hughes, Ned Flanders, Carl Raths, Amidon and Hunter). 761
- (t1068) help students to consider alternative values and to develop personal, workable valuing systems. 762
- (t1069) cause students to examine and clarify their values by using conservation and questioning approaches. 763
- (t1070) construct situations in which students identify and analyze conflicts in personal value positions they have among themselves. 764
- (t1071) teach students techniques of problem-solving. 765
- (t1073) providing opportunities and guidance to help students become independent learners (define own goals and problems, identify resources and evaluate outcomes). 766
- (t1074) can apply group process skills in appropriate team teaching situations. 767
- (t1075) design and conduct group activities according to the kinds of learning that are facilitated by the different groupings. 768

(t1077)	adjust group organization and focus to increase involvement of group members.	769
(t1078)	design, conduct and evaluate a program of peer tutoring (same age or cross-age),	770
(t1079)	evaluate his teaching behavior through the use of audiovisual equipment.	771
(t1080)	prescribe for improvement of his own effectiveness on the basis of collected data,	772
(t1081)	identify socio-emotional and physical development factors that bear on a student's learning situation and take these factors into account in planning his instruction.	773
(t1082)	develop thematic programs of study (e.g., pollution; heredity, environment, and health) which incorporate two or more areas of study (i.e., math, social studies, etc.) and which demonstrate the interrelatedness of areas of knowledge.	774
(t1083)	accept responsibilities for teaching subjects outside his own specialization as it is appropriate to a team teaching plan,	775
(t1084)	accept responsibility for assisting other team members in the teaching of subjects outside their specialization.	776
(t1085)	participate actively in school-wide or district-wide multi-disciplinary curriculum planning.	777
(t1086)	motivate students to express their feelings, perceptions, and emotions through art media.	778
(t1087)	diagnose the visual discrimination ability of a student.	779
(t1088)	deal with problems objectively and decisively.	780
(t1089)	openly express his feelings and convictions with consideration and respect for the feelings and convictions of others.	781
(t1090)	identify sensory and/or health problems of students by use of standard screening procedure.	782

(t1091)	analyze student handwriting using normative criteria based on speed, accuracy, and style,	783
(t1092)	identify literary tastes and interests of specific students.	784
(t1093)	diagnose students proficiencies in study skill areas, i.e., outlining, dictionary skills, use of index, table of contents, note taking, etc.	785
(t1094)	analyze adequately the speech patterns of given students using a standard analysis form.	786
(t1095)	diagnose a student's spelling difficulties and methods of word attack.	787
(t1096)	provide effective story-telling, dramatization and poetry experiences.	788
(t1097)	provide an experience in which learners discover the concept of number conservation.	789
(t1098)	recognize and abandon goals that cannot be achieved or goals that are not worth the expenditure of the required time or effort.	790
(t1099)	communicate a genuine interest in others.	791
(t1100)	reinforce math concepts being developed by using appropriate concrete manipulative devices and materials.	792
(t1101)	communicate an appreciation of the uniqueness and intrinsic value of each individual (including himself).	793
(t1102)	communicate respect and appreciation for individual differences, for beliefs, values, opinions and ideas different from his own.	794
(t1103)	accept constructive feedback or criticism without reacting defensively, becoming hostile or withdrawing.	795
(t1104)	respond to the needs and feelings of others.	796
(t1105)	design an informal reading inventory to provide reliable information on which to base a preliminary instructional program.	797

Teacher Behaviors

(t1106)	construct a reading skill/comprehension diagnostic instrument from appropriate passages from elementary level children's reading texts,	798
(t1107)	work well with a wide variety of personalities,	799
(t1108)	diagnose the basic reading skills of students,	800
(t1109)	work effectively as a member of a group, performing appropriate roles as needed for the maintenance of the group or accomplishment of the task,	801
(t1110)	instill an awareness of the need for conservation of human and natural resources,	802
(t1111)	foster independent and responsible thinking among students by encouraging them to consider conflicting evidence, ideas, and values,	803
(t1112)	help students sense intrinsic worth in themselves,	804
(t1113)	help children perceive and deal with each other as human beings of intrinsic worth,	805
(t1114)	develop a program or programs designed to achieve affective objectives,	806
(t1115)	identify the self-respect needs and political needs of groups of people and the reasons for such needs,	807
(t1116)	take into account cultural differences when determining affective objectives and their achievement,	808
(t1117)	accept self-respect and political needs as legitimate motivational forces on groups,	809
(t1118)	sense and respond to the needs, readiness, and capacity for acceptance of feedback of the individual student,	810
(t1119)	ask evaluative questions,	811
	Rosenshine & Furst	811a
	Toledo CBTE Module: THE ACQUISITION OF QUESTIONING SKILLS,	811b

(t1120)	provide reinforcement of student answers,	812
	Rosenshine & Furst	812a
	Weber State Wilkit #7, PRINCIPLES OF REINFORCEMENT,	812b
(t1121)	effectively space review,	813
	Rosenshine & Furst	813a
(t1122)	evaluate his own biases and the influence they might have on his decisions,	814
(t1123)	explain concepts clearly,	815
	Rosenshine & Furst	815a
	Weber State Wilkit #9, ELEMENTARY SCHOOL MATH II Toledo CBTE Module, THE ACQUISITION OF QUESTIONING SKILLS Georgia Educ. Module, SOCIAL STUDIES FOR THE ELEMENTARY SCHOOL, PROFICIENCY MODULE #3, CONCEPT FORMATION - CONCEPT TEACHING	815b
(t1124)	ask questions calling for the interpretation of facts,	816
	Rosenshine & Furst	816a
	Georgia Educ. Module, SOCIAL STUDIES FOR THE ELEMENTARY SCHOOL, PROFICIENCY MODULE #6, INTERPRETING DATA.	816b
(t1125)	acknowledge the student's idea by repeating the nouns and logical connectives he has expressed,	817
	Rosenshine & Furst	817a
(t1126)	modify the idea a student has expressed by rephrasing it or conceptualizing it in the teacher's own words,	818
	Rosenshine & Furst	818a
(t1127)	apply the student's idea by using it to reach an inference or to take the next step in a logical analysis of a problem,	819
	Rosenshine & Furst	819a

Teacher Behaviors

- (t1128) compare a student's idea by drawing a relationship between it and ideas expressed earlier by the students or the teacher, 820
 Rosenshine & Furst 820a
- (t1129) summarize what was said by an individual student or group of students, 821
 Rosenshine & Furst 821a
- (t1130) listen to students, especially to the feelings of students, 822
- (t1131) accept the innovative, challenging, "troublesome" creative ideas which emerge in students, rather than reacting to these as threats by insisting on conformity, 823
- (t1132) work out interpersonal frictions and problems with students through problem solving rather than dealing with such issues in a disciplinary or punitive manner, 824
- (t1133) develop an equalitarian atmosphere of shared decision making in the classroom, conducive to spontaneity, to creative thinking, to independent and self-directed learning, 825
- (t1134) "see beyond what is happening at the moment and explore visually several possible courses of action," 826
- (t1135) develop cooperatively with pupils, objectives for large units of study, daily class work, and special activities, 827
- (t1136) arrange for differentiated assignments to meet needs and abilities of individual pupils, 828
- (t1137) use a variety of instruments and techniques for keeping pupils informed of their progress, 829
- (t1138) help pupil make application of his experiences to many situations, 830
- (t1139) organize and summarize data for meaningful interpretation, 831
- (t1140) report to parents in terms of growth in knowledge, skills, attitudes and social behavior, 832

Teacher Behaviors

(t1141)	lead the learner to assume an important role in the evaluation of his own growth and development,	833
(t1142)	maintain an effective balance of freedom and security in the classroom,	834
(t1143)	assist guidance personnel by conferring with students and parents when appropriate,	835
(t1144)	provide opportunities for pupils to develop qualities of leadership and self-direction,	836
(t1145)	establish effective relationships with individual pupils,	837
(t1146)	assist the student in defining realistic goals,	838
(t1147)	direct the student to sources of information on vocational opportunities and careers,	839
(t1148)	tentatively identify those pupils experiencing health dysfunctions,	840
(t1149)	share power with pupils by including pupils in on the making of decisions,	841
(t1150)	inform parents as to what pupils enjoy and respond to, rather than what they don't do well,	842
(t1151)	listen to parents' ideas in ways which acknowledge parent as worthwhile person,	843
(t1152)	consult parents on what parent has found to be helpful in working with child,	844
(t1153)	explain reasons for classroom activities,	845
(t1154)	deal with a variety of numbers of pupils,	846
(t1155)	select and elicit appropriate kinds of pupil talk to meet specific goals,	847
(t1156)	share her own feelings with pupils,	848
(t1157)	exhibit non-judgmental behaviors and delimit the use of judgmental behaviors,	849
(t1158)	expand on a student's idea,	850
(t1159)	induce climate of information sharing among pupils,	851

Teacher Behaviors

(t1160)	help pupils develop increased skills of effective communication.	852
(t1161)	develop variety of pupil roles in the classroom, among them: initiator, respondent, helper, information-retriever, clarifier, supporter, confronter, summarizer, process observer,	853
(t1162)	encourage activities in which pupils learn about their participation in the learning process.	854
(t1163)	exhibit the ability to assume a variety of roles and a variety of behavior within those roles in relationship to school personnel other than students.	855
(t1164)	specify needs assertively and non-defensively.	856
(t1165)	determine the central mental processes by which a child arrives at an answer to a question.	857
(t1166)	involve the student in learning experiences which are appropriate to him. (Appropriateness = individualizing in terms of readiness, personalizing in terms of relevance, and contributing to evolution of the learner's social-psychological self.)	858
(t1167)	instill in students an appreciation of human diversity.	859
(t1168)	reevaluate deeply held premises and values for possible change.	860
(t1169)	encourage and facilitate experimentation with altering premises and values.	861
(t1170)	introvert periodically to examine her own bodily and psychological reactions to change.	862
(t1171)	consciously influence her own life pace -- speeding it up or slowing it down -- with respect to small things, the micro-environment and in terms of the larger, structural patterns of experience.	863
(t1172)	manage change.	864
(t1173)	assign probabilities to some of the changes that are in store for her.	865

(t1174)	make explicit some of her assumptions about the future.	866
(t1175)	forecast and influence her expenditure of time and emotion.	867
(t1176)	work out new tactics to help her regulate the stimulation to which she subjects herself.	868
(t1177)	guide students to generate successive, alternative images of the future.	869
(t1178)	present data and ways to manipulate it.	870
(t1179)	guide students in learning how to discard old ideas, how and when to replace them.	871
(t1180)	assist the student in making and maintaining rewarding human ties.	872
(t1181)	help students to accept the absence of deep friendships, to accept loneliness and mistrust -- or she can identify new ways to accelerate friendship formation.	873
(t1182)	encourage students to analyze their own values and those of their teachers and peers.	874
(t1184)	sensitize students to the possibilities and probabilities of tomorrow.	875
(t1185)	participate in decision making and, in turn, involve her students in the process.	876
(t1187)	cause students to feel they can count on her to help with student problems.	877
(t1188)	seek and use student's ideas about academic and non-academic matters.	878
(t1189)	recognize the problems faced by the students in their school work.	879
(t1190)	cause student to trust communication from her.	880
(t1191)	be creative.	881
(t1192)	be flexible, open to experience.	882
(t1193)	be responsible for herself and others while being guided by positive goals and purposes.	883

Teacher Behaviors

(t1194)	cope with change and adversity,	884
(t1195)	abandon the teacher's traditional role as merely an information provider,	885
(t1196)	establish herself as a self-actualized person; that is, well informed, possessed of positive self concepts, open to own experiences, and possessed of deep feelings of identification with others,	886
(t1197)	establish effective human relationships,	887
(t1198)	exhibit empathy; that is, being honestly concerned with understanding how students think, feel, and perceive,	888
(t1199)	exhibit concern about personal meaning of students,	889
(t1200)	function as a facilitator rather than a controller, a helper rather than a director,	890
(t1201)	develop positive perceptions of her subject matter, herself and children, without anyone consciously attempting to instill them,	891
(t1202)	perceive alternative solutions to problems that face him,	892
(t1203)	provide students with opportunities to experiment with behavior changes in simulations of real situations without suffering the consequences of failure,	893
(t1204)	set the guideline that all policies be acceptable to him as well as to the class,	894
(t1205)	use a variety of affective learning techniques (such as fantasy, improvisation, synectics, role-playing, group dynamics, and games) in their own classroom,	895
(t1206)	create a classroom climate that is lively, encourages student participation and the expression of student concerns,	896
(t1207)	cause students to develop more positive attitudes toward learning, and toward one's self, teachers and peers,	897

(t1208)	cause students to value and use a variety of cognitive and affective processes with which to gain greater conscious control over one's self, one's environment and one's interpersonal relationships.	898
(t1209)	examine all aspects of a concept or event and explain its relationships and implications to students.	899
(t1210)	develop a concept of self that is worthwhile in herself and students.	900
(t1211)	cause students to develop relationships with other people that are intimate and meaningful.	901
(t1212)	cause students to feel a sense of control and power over their own destiny.	902
(t1213)	make the curriculum relevant to students.	903
(t1214)	cause students to feel comfortable enough to speak openly about their concerns in a classroom.	904
(t1215)	feel comfortable enough to speak openly about her concerns in a classroom.	905
(t1216)	engage students in a collaborative effort to find more potent strategies for learning within the classroom context.	906
(t1217)	respond openly to criticism.	907
(t1218)	involve students more directly in creating curriculum.	908
(t1219)	relate to children who are "different."	909
(t1220)	cause young people to participate in a new and healthier level of mutual understanding and respect among all groups in society.	910
(t1221)	cause students to develop a humanistic attitude toward others.	911
(t1222)	comprehend the realities of social stratification in our society and begin to evaluate its effects on her own behavior.	912

Teacher Behaviors

- (t1223) set realistic goals for self, based on a clear perception of his limitations and capabilities and the reality of his situation, 913
- (t1224) identify his own stereotypes about ethnic groups and the impact these attitudes have had on him as an individual and as an educator, 914
- (t1225) identify and evaluate alternative approaches to the achievement of his goals, 915
- (t1226) evaluate his perceptions of and expectations for student's academic performance based on their group membership and family structure, 916
- (t1227) evaluate the effects of social class and ethnicity on intellectual functioning, learning environment for the individual students in their classroom, 917
- (t1228) use various structural models most conducive to a positive learning environment for the individual students in their classroom, 918
- (t1229) select and organize a variety of materials which enable young children to pose and solve their own mathematical problems, 919
- (t1230) develop skills in interpersonal relationships so that all members of the team feel that they are an important part of the team, 920
- (t1231) design learning sequences in mathematics in which learners move from the concrete to the abstract, 921
- (t1232) cause her students to be more self-directed instead of teacher-directed, 922
- (t1233) plan and direct effective learning activities based on the learning styles of individual students, 923
- (t1234) understand the individual pupil, demonstrated by her ability to meet individual needs and develop individual talents, 924
- (t1235) determine the effectiveness of activities in achieving desired outcomes, 925
- (t1236) establish appropriate relationships with pupils, both individually and in groups, 926

(t1237)	collect accurate, pertinent information about pupils and use it effectively,	927
(t1238)	achieve effective relationships with the pupil's family,	928
(t1239)	define his objectives to include values important to the culture,	929
(t1240)	develop the appreciations, attitudes required for effective participation in a democratic society,	930
(t1241)	recognize and deal with each pupil according to his needs,	931
(t1242)	cause individuals to acquire the skills of effective group membership,	932
(t1243)	provide abundant and varied opportunities for individual and group expression in appropriate creative field,	933
(t1244)	analyze his effect on others and their effect on him,	934
(t1245)	maintain an effective balance of freedom and security in the classroom,	935
(t1246)	show an honest liking and sincere regard for boys and girls,	936
(t1247)	emphasize responsible group living with standards of conduct comparatively determined,	937
(t1248)	develop relations among pupils that are cooperative and natural,	938
(t1249)	help students learn to respond physically to meter and rhythm in music,	939
(t1250)	plan the management of classroom routines as a worthwhile learning experience for pupils,	940
(t1251)	cause his students to acquire the values realized as ideals of democracy, such as: mutual respect, willingness and ability to cooperate in the solution of problems, willingness and ability to use intelligence in problem solving, goals and standards for effective living in our culture,	941

Teacher Behaviors

(t1252)	dwell on the feelings of the child in regard to social situations, not on the details of the incident.	942
(t1253)	accept a child regardless of what he says,	943
(t1254)	ascertain reading interests and degrees of motivation for reading by conducting informal interviews with pupils.	944
(t1255)	react appropriately to the mood and content of another person's communications -- verbal and non-verbal.	945
(t1256)	provide constructive criticism, meaningful feedback, support, and encouragement to students.	946
(t1257)	select teaching materials for a developmental reading program.	947
(t1258)	absorb hostility without becoming hostile in return or rejecting the other person.	948
(t1259)	identify incompatibilities in his own values with those of children, general society, and specific social groups.	949
(t1260)	accept the reality of a "black power" stance of segments of society and recognize situations in which that stance is important to consider.	950
(t1261)	spontaneously acknowledge legitimacy of others' decisions, and treat them as legitimate.	951
(t1262)	accurately assess the affective growth and development of students.	952
(t1263)	respect the basic worth of every individual.	953
(t1264)	demonstrate a sensitivity to the rights, needs, feelings, and problems of every ethnic, racial and religious group.	954
(t1265)	demonstrate respect for the democratic ideal of equal justice under the law by reflecting it within classroom situations.	955
(t1266)	recognize that no characteristic trait is typical of every individual of any one group.	956

Teacher Behaviors

(t1267)	recognize that mental ability and talents vary among individuals of every ethnic, racial and religious group.	957
(t1268)	think and verbalize rationally and objectively about all groups.	958
(t1269)	avoid stereotyping, scapegoating, and over-generalizing about groups and individuals.	959
(t1270)	recognize that each person has a contribution to make to the group.	960
(t1271)	work cooperatively with others.	961
(t1272)	practice consideration and respect for everyone.	962
(t1273)	respect people's differences.	963
(t1274)	recognize the worth of each individual and evaluate him on his own merits.	964
(t1275)	measure student behavior and characteristics with respect to given affective objectives.	965
(t1276)	discuss and interpret the problems created by prejudice and discrimination.	966
(t1277)	approach new people, customs, and ideas without prejudice.	967
(t1278)	help class, through group interaction, arrive at a common goal.	968
(t1279)	help students become active, responsible learners.	969
(t1280)	support students in their learning efforts.	970
(t1281)	work effectively in teamwork relationships.	971
(t1282)	individualize learning in terms of readiness to contribute to human worth.	972
(t1283)	personalize learning in terms of relevance for self-evaluation and human dignity.	973
(t1284)	help students learn to apply modes of inquiry of the Social Sciences to the study of significant social phenomena.	974

Teacher Behaviors

(t1285)	use resources to maximize learning alternatives that contribute to human freedom.	975
(t1286)	train students to be effective tutors for each other.	976
(t1287)	integrate musical, artistic, and poetic experiences with cognitive learning.	977
(t1288)	construct his own measures for assessing affective growth and development.	978
(t1289)	develop group knowledge and cohesion.	979
(t1290)	evaluate a school curriculum plan according to criteria derived from an analysis of the expectations and requirements of the immediate and larger communities.	980
(t1291)	utilize appropriate personnel in planning for change.	981
(t1292)	give all students the opportunity to exercise informal leadership.	982
(t1293)	utilize decision making processes appropriate to class operation in a given situation.	983
(t1294)	demonstrate a general understanding of the concepts of human relations.	984
(t1295)	comprehend conversation, lectures, and news broadcasts in a specified foreign language.	985
(t1296)	anticipate and weigh the consequences of alternative decisions.	986
(t1297)	identify and mobilize the resources available to him in the achievement of goals.	987
(t1298)	develop evaluative criteria with which to determine effectiveness of specific classroom (social studies) instructional goals, experiences, materials, methodology, and evaluation procedures.	988
(t1299)	analyze his personal philosophy of life.	989
(t1301)	evaluate the effectiveness with which affective programs are carried out.	990

Teacher Behaviors

DAP 5-FEB-75 11:39 31797
Master List

(end)

991

Teacher Behaviors

(J31797) 5-FEB-75 11:39;;; Title: Author(s): David A. Potter/DAP;
Distribution: /DAP([ACTION]); Sub-Collections: NIC; Clerk: DAP;
Origin: < POTTER, T/B/LIST.NLS;1, >, 5-FEB-75 11:38 DAP ;;;(origin)
####;

IBM Prop Eval

JPC 5-FEB-75 13:37 31798

This is a copy of the letter I sent to procurement based on our evaluation meeting of Feb 3. We made up the TET - Technical Eval Team.

IBM Prop Eval

Date: 5 FEB 75 1

Reply to Attn of: ISIM/3857 2

Subject: Evaluation of proposal for B-5-3254 3

To: RADC/ISIM
ISI
IS
PMRD/Capt. Karlin
IN TURN 4

(1) The TET has met to consider the technical proposal from IBM in response to B-5-3254, NLS Support of Modern Programming Practices. A number of questionable areas have been identified by the TET and the completion of the evaluation is not possible at this time. 5

(2) The TET wishes for the PAA to arrange a meeting between the offeror, IBM, Federal Systems Division, 18100 Frederick Pike, Gaithersburg, Maryland, and the TET to take place some time after Feb, 10th. This meeting will have the objective of making sure that there is a common understanding of the technical requirements of the work. The following specific areas need clarification: 6

-how the analysis of NLS features will be made and how these

IBM Prop Eval

will be compared with the Structured Programming practices
of IBM.

6a

-how NLS will be used to prepare the analysis, provide
interim reports and the final report under government
supervision.

6b

-what type of equipment is necessary for this effort.

6c

-describe the impact of using a sophisticated on-line
programming environment for structured programming and its
related documentation rather than a batch or simple TSS
environment.

6d

-identification of features that NLS might lack for
supporting a SP system and suggestions for possible
improvement to the NLS to better support modern programming
practices.

6e

7

Joseph P. Cavano
Info Mgt Sciences Section
Info Processing Branch

8

9

10

JPC 5-FEB-75 13:37 31798

IBM Prop Eval

(J31798) 5-FEB-75 13:37;;; Title: Author(s): Joe P. Cavano/JPC;
Distribution: /JPC([ACTION]) EJK([INFO-ONLY]) DLS([INFO-ONLY]
) ; Sub-Collections: RADC: Clerk: JPC; Origin: < CAVANO,
IBM/EVAL.NLS;1, >, 5-FEB-75 11:55 JPC ;;;;###;

acknowledgement of (25292,)

I got your message about <CTRL O> and its been moved to the bugs
branch. Susan/FEED

1

FEED 5-FEB-75 13:49 31799

acknowledgement of (25292,)

{J31799} 5-FEB-75 13:49;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /POOH([INFO-ONLY]) ; Sub-Collections:
IRI-ARC; Clerk: FEED;

acknowledgement of (25296,)

I received your suggestion for a generate link command and have moved it to the design recommendations section of the feedback file.
Susan/FEED

FEED 5-FEB-75 13:51 31800

acknowledgement of (25296,)

(J31800) 5-FEB-75 13:51;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /ARC-APP([INFO-ONLY]) ;
Sub-Collections: SRI-ARC ARC-APP; Clerk: FEED;

Army Materiel Command Proposed Agenda Item for System Architects Meeting

I propose to discuss current and potential use of OFFICE By the U S Army Materiel Command, 1

We are currently conducting what we call our "SNDMSG Experiment". We started with the top seven executives responsible for overall automatic data processing and management information activities of the command (our annual data processing budget is approximately \$150 million). 2

Our initial intent was to exchange messages via SNDMSG. Our use quickly grew to constructing larger messages with NLS and from there to full use of the OFFICE facilities. We have begun to train secretaries and staff officers in use of the system. 3

We have been collecting reactions of these top executives in terms of what they see as strengths and weaknesses of OFFICE. The system has been well accepted by most of these executives. I propose to discuss some of the reasons why, as well as our tentative conclusions. 4

Next I propose to discuss our intentions for expanded use of OFFICE, 5

We are a large organization with over 100,000 people in approximately 80 different geographical locations. We intend to expand our use of OFFICE to people in 20 different locations next year. We hope to use the system to support committee work using NLS to construct draft policy documents that such committees normally work on. We will need an on line teleconferencing capability with audio links to allow this work on text they have prepared as NLS files. 6

Another possible area of use is in support of scientists and engineers carrying out research and development throughout the command. Possible applications include keeping of research notes and generating research reports. 7

We are ultimately interested in making a system such as OFFICE available to all management and staff throughout the command. I will discuss some of our initial observations of modifications required for this more general use such as: 8

Provisions to prevent staff from by-passing intermediate management to elevate routine problems to top management, 8a

Control of coordination of documents at many different levels. 8b

Provision for interconnecting OFFICE and AMC computers throughout the USA to call up management information and management indicators while using OFFICE in developing text and in

Army Materiel Command Proposed Agenda Item for System Architects
Meeting

teleconferences. Such interconnection might well be via something
like the National Software Works.

8c

Army Materiel Command Proposed Agenda Item for System Architects
Meeting

[J31801] 5-FEB-75 14:28;;; Title: Author(s): Ronald P. Uhlig/RPV;
Distribution: /FGB([ACTION]) AMC-MIS([INFO-ONLY]) SMT([
INFO-ONLY]) ; Sub-Collections: NIC AMC-MIS; Clerk: RPV;
Origin: < UHLIG, KWAKAG.NLS;3, >, 5-FEB-75 14:25 RPV ;;;;####;

Impact Statement for funding Hybrid Computer using 5550 funds.

Major Patterson called me on Tuesday and said that the AFSC/Program Evaluation Group (PEG) had included an item "Hybrid Computer" in the FY77 program for \$900K and had increased the ceiling by that amount. However, the cost as far as he could determine, is FY75/s100K; FY76/s700K; FY77/s9000K; and FY78/s300K. The hybrid computer program is a joint Army/AF program which has come about via an agreement between General Hendricks and his Army counterpart, Dr Delaway. Bill said that Air Staff wasn't involved in it yet. He asked me to prepare an impact on our program if the FY75 & FY76 funds had to come out of our hide. This is what I propose to forward to him via NLS and require your approval to do so.

Impact Statement for funding Hybrid Computer using 5550 funds,

The requirement that \$900K of Project 5550 FY77 funds be used to support the U.S. Army Hybrid Computer development implies that \$100K of \$2.3M in FY75 & \$700K of \$4.0M in FY76 funds also be surfaced. If this is the case, the following are the impacts for FY75 and FY76.

GENERAL IMPACT:

Air Force software costs exceed \$1.5 billion per year. This cost can be reduced greatly by introducing controls during the development of software. These controls will be effective throughout the life of the software.

If the above funds are to be surfaced, it will have to be from the program planned to develop these controls.

SPECIFIC IMPACTS:

FY75 - \$100K - Initiation of efforts in the Software Reliability Area for which proposals are now being evaluated will be cancelled as follows:

Cancel Automated Verification System (AVS) for JOVIAL J4
Planned Funds (FY75- \$40K FY76- \$55K)

This effort will extend the AVS being developed for JOVIAL J3 to allow processing of the JOVIAL J4 language. SAMSO has expressed a need for this work to allow processing of the language on the CDC 3800s at the Satellite Control Facility (SCF). A delay of at least one year will result by slipping this effort. The impact will be that testing of the software for use at the SCF will be inadequate and result in software of questionable quality.

Cancel Software Reliability Analysis Center Design Study
Planned Funds (FY75- \$60K FY76- \$140K)

The objective of this program is to arrive at the design of a facility from which standard reports will be generated and disseminated to interested organizations. The reports will readily allow analysis to determine such things as standards of programmer performance, measures of software reliability, compiler and language problems, etc. A delay in implementation of such a Center of from one to two years will be incurred if the design study is cancelled in FY75 and slipped to a later start. The result will be a further continuation of software developments which are costly and unreliable.

Impact Statement for funding Hybrid Computer using 5550 funds.

FY76 - \$700K - Efforts in the Software Reliability Area will be reduced or cancelled as follows: 1f

Reduce Test & Evaluation of Modern Programming Practices from \$495K to \$195K 1f1

During FY76, initiation of a \$495K program is planned in which a controlled software programming production environment will be created for three major Air Force organizations (to be selected from SAMTEC, WWMCCS, Data Services Center, AFPSDC-MAJCOM update and DAIS). Quantitative data will be obtained on the effects of using modern programming practices in the software development process. These practices include the use of outputs to be obtained from the Structured Programming Systems contract with IBM and the tools to be made available to managers and programmers via the ARPA net. Data will be collected on productivity, errors, and costs to allow intelligent application of these practices to future systems. 1f1a

Reduction of this effort will result in (1) a reduction from three to one test organizations and, (2) a stretching out of the program. The reduction in test organizations will lessen the confidence in the results obtained and the stretching out of the program will result in a delay of from 2 to 3 years in introducing the modern programming practices into future systems and therefore lengthen the time the Air Force will continue to produce unreliable software. This \$0.3 million cut looks insignificant but is significant when one examines the leverage which could result. (i.e., A 1% savings, which is felt to be an extreme minimum, in annual Air Force software costs is 15 million dollars - a 50:1 leverage factor if one considers these funds to be a one year investment resulting in a one year pay-off). 1f1b

Cancel Language Control Developments for New FORTRAN (from \$400K to \$0K) 1f2

The specification of a "new" Fortran, one of the three approved Air Force Higher Order Languages, is to be completed during FY75. To insure that the language is implemented properly and consistently, RADC has found through its experiences with JOVIAL that specific developments for each language are required (i. e., a compiler validator, a SEMANTICS Oriented Language (SEMANTOL), and a compiler implementation tool with a built-in statistics collector). It is planned to start these developments in FY76. 1f2a

Impact Statement for funding Hybrid Computer using 5550 funds.

The reprogramming of these funds for use on the Hybrid Computer development will result in a delay in the development of these necessary tools for language control. This "new" FORTRAN language will be introduced with no control over how it is used and extended; no idea of how it is being used so that compilers could be built to run more efficiently; and a proliferation of unlike compilers since they will not be built from a single implementation tool or tested using one validator by a single agency.

1f2b

Impact Statement for funding Hybrid Computer using 5550 funds.

(J31803) 6-FEB-75 06:29;;; Title: Author(s): Roger B. Panara/RBP;
Distribution: /RDK([ACTION]) RBP([INFO-ONLY]); Sub-Collections:
RAD; Clerk: RBP; Origin: < PANARA, HYB-IMPACT,NLS;1, >
6-FEB-75 06:08 RBP ;;;;####;

Memo on IBM Procurement

Joe, I read your letter to Procurement in the context of our meeting. I feel if you can get the answer to the questions you pose, in the context of a discussion where we can give them a feel for our thinking, most of the problems will be alleviated.

1

EJK 6-FEB-75 07:10 31804

Memo on IBM Procurement

(J31804) 6-FEB-75 07:10;;; Title: Author(s): Edmund J.
Kennedy/EJK; Distribution: /JPC([ACTION]) DLS([INFO-ONLY]) ;
Sub-Collections: RADC; Clerk: EJK;

Status of suggestion in (31793,) - distribution in citation

There are some people reviewing journal citation format and one of their proposals is to include the distribution in the citation or at least provide an easier way of getting there. I'm moving your suggestion to the design recommendations section of the feedback file in order to give support to that proposal, Susan/FEED

status of suggestion in (31793,) - distribution in citation

(J31805) 6-FEB-75 10:57;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /KM([INFO-ONLY]); Sub-Collections:
SRI=ARC; Clerk: FEED;

What to do about hanging commands

POOH sent a message to Feedback with reference to commands that are not yet implemented. She's wondering if they should be documented or removed from all documentation. The one in question specifically is Undelete Modifications but I suspect there are others. How should these kind of things be documented and subsequently taught?
Susan/FEED

1

What to do about hanging commands

(J31806) 6-FEB-75 11:05;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /RWW([ACTION]) JCN([ACTION]) POOH(
[INFO-ONLY]) KIRK([INFO-ONLY]) DVN([INFO-ONLY]) JHB([
INFO-ONLY]) ; Sub-Collections: SRI=ARC; Clerk: FEED;

Need for meeting on 5550

I think we should have a meeting on 5550 to determine what will go in FY75. We are now getting down to the nitty-gritty.

Need for meeting on 5550

COMMITTED

				9
STARAN System S/W Maintenance	14,000	(B53133)	Vito	9a
TRAVEL	7,786	(B53238)	Panara	9b
TDR's	1,103	(B53239B)	Panara	9c
PD to ESD - Travel	1,000	(B53257)	Panara	9d
PD to ESD (ADP Security-Communications)	4,000	(B53292)	Panara	9e
	SUB-TOTAL	27,889		10

INITIATED

				11
PD to ESD (ADP System Security)	8,572	(B53243)	Panara	11a
S/W Data Repository (Facility Design)	30,000	(B53262)	Palaimo	11b
Evaluations due in IS 12 Feb.				11b1
Estimated contract date -1 April.				11b2
S/W Data Collection (Facility Design)	30,000	(B53245)	Palaimo	11c
Evaluations due in IS 5 Feb.				11c1
Estimated contract date -1 April.				11c2
Data Manipulator	19,392	(B53104)	Johnson	11d
Evaluations in IS - 5 Feb.				11d1
Estimated contract date -1 April.				11d2
This date will have to be slipped to 1 May since available funds will not cover April expenditures.				11d2a
ARPA/NSW	322,691	(B53273)	Wingfield	11e
Mr Lemke said he thought the obligation date will now be slipped to the end of FEB.				11e1
Awaiting decision on extended use of existing computer - decision by 15 Jan.				11e2
S/W Rel Meas Study (Aerospace)	50,000	(B53272)	Robinson	11f
Funds are at SAMSC - a matter of paperwork delay per Capt Wong/SAMSC on 14 Jan.				11f1
NLS Sppt of Mod Prog Practices	21,000	(B53254)	Cavano	11g
Proposal being evaluated by ISIS -30 Jan.				11g1
8 month effort/ \$61K				11g2
Estimated contract date -1 April.				11g3
AVS - J4	30,000	(B53279)	Robinson	11h
Estimated contract date -15 April.				11h1
Good Structures (Carnegie Mellon)	30,000	(B53258)	White	11i
Proposal has been evaluated 10Jan.				11i1
Estimated contract date -1 Mar per PM on 30Jan.				11i2
Workshop Utility Service	80,000	(B53294)	Stone	11j
	SUB-TOTAL	621,655		12

Need for meeting on 5550

PRE-INITIATED

-----			13
Mass Memory Organization Study	10,000	(B53107) Bauer	13a
SOW meeting held on 23 Jan.			13a1
Assoc Proc Signal Proc Sty	30,000	(B53106) Summers	13b
Needs Form 77 to xfer to 5550 from 5581,			13b1

SUB-TOTAL	40,000		14

REQUIRES SOW MTG

-----			15
SUB-TOTAL	-0-		16

REQUIRES SOW

-----			17
Syracuse U (add)	15,000	(B53132) Previte	17a
Amount req'd has been determined. Remainder of funds used on Signal Processing effort.			17a1
Lang Cont. Facility Design Study	15,000	(B53288) DiNitto	17b
submission date unknown - Sam is working on it but was busy with ESD study. (originally 15 Jan.)			17b1

SUB-TOTAL	30,000		18

PROGRAM-TOTAL	2,286,400		
REMAINDER-TOTAL	13,600		19

RELEASED-TOTAL	2,300,000		20

CANCELLED

NO FORM 77's SUBMITTED FOR FY75.			21
JOCIT/J=73	50,000	(B53200) DiNitto	21a
Start slipped to FY76.			21a1
D&F at USAF - in Gen Robbins's per Starbuck / 8 Jan.			21a2
FORM 77 REQ'D			22
IPADS Software=Phase 1A	26,375	(B53137) Falzarano	22a
Requirement cancelled by AFGWC per LaSalle on 31Jan.,			22a1
Forwarded to PR unit on 24 Jan.			22a2

SUB-TOTAL	76,375		23

Need for meeting on 5550

(J31807) 6-FEB-75 11:32;;; Title: (Expedite) Title: Author(s):
Roger B. Panara/RBP; Distribution: /RDK([ACTION]) DRL2([ACTION])
FJT([ACTION]) ARB([ACTION]) JLM([INFO-ONLY]) RN2([
INFO-ONLY]) RBP([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: RBP;
Origin: < PANARA, FEBSTATUS,NLS;1, >, 6-FEB-75 11:22 RBP ;;;;###;

Response to (31805,)

Thanks Susan .

KM 6-FEB-75 13:08 31808

Response to (31805,)

(J31808) 6-FEB-75 13:08;;; Title: Author(s): Keith McCloghrie/KM;
Distribution: /FEED([INFO-ONLY]) KM([INFO-ONLY]);
Sub-Collections: NIC; Clerk: KM;

Access MIS via B6700

Subject: Notes on meeting with Mike Tyler concerning B6700 application for Washington MIS system

1

Date: Feb. 4, 1975

2

Attendees: Pat Whiting-O'Keefe, Mike Tyler, Systems Programmer for 6700

3

Consideration was given to two approaches to providing on-line to the Washington office a subset of the information available on current projects and proposals in the MIS system. The following assessments were made:

4

One approach was to extract information from the B6700 MIS files into new files on the B6700 for on-line access by the Washington office. A number of considerations were discussed regarding this approach.

4a

The following new software modules would need to be developed.

4a1

A program to generate the file(s) to extract the required data from the current MIS files.

4a1a

A program to update the file as updates are made to the current MIS system would be required. An alternative might be to update the file once at the end of each day.

4a1b

A program to allow access to the information in the ways desired would be necessary. While such a program is not difficult it is difficult to anticipate the ways that the file may be need to be accessed in the future. Consideration was given here to use of the Cande Editing system. However this system is designed for program development and program editing. It would not allow the necessary flexibility to look at various subsets of the information and/or to sort the information in different ways. In fact it would primarily provided only listing capability or single record printing which is unacceptable for the application under consideration.

4a1c

In addition a number of different items would represent billable charges associated with storage and access of the data. These are:

4a1d

CPU time @\$600./hr.

4a1d1

I/O time @\$140./hr.

4a1d2

Storage Charges based on a complex algorithm.

4a1d3

Computer Connect Time @ \$2.50/hr.

4a1d4

Making some assumptions on the amount of storage maintained, the number of accesses per week, the time required for each access, a rough estimate can be made of the costs that would be associated with this approach on a continuing basis.

4a1e

Assuming a connect time per week of 200 min., a CPU time / week resulting from 10 accesses and an I/O time estimate for these 10 accesses, the following charges are derived:

4a1e1

Connect time = \$8.25

4a1e1a

CPU time = \$1.50

4a1e1b

I/O time = \$7.00

4a1e1c

Total = \$16.75

4a1e1d

Storage charges have not been included in this estimate since the manner in which the data is stored can dramatically affect these costs. If the data is maintained on line continuously to assure immediate access and to permit on line updating, assuming that the file(s) contain 1000 250-character records, then the file will occupy 1400 segments of 30 words each. A billing was located for a file with a 1 level directory maintaining storage in 2280 segments and the bill was averaging \$37/week. If the file were maintained on line for say only 8 or 10 hours each day and copied to tape on a daily basis, then the storage charges could be cut in half. However, then if access were desired at a time when the file was not on line, about a fifteen minute delay would occur before the file was available. The file could normally be loaded first thing each day. Thus total billing per week would run on the order of \$53.75/week without tape archiving and \$32./week with archiving.

4a1e2

Furthermore the system is down for system maintenance from 4 to 6 AM several days a week. Thus the Washington office would not have access to this information from 8 to 9 AM on those days.

4a1e3

No estimate has been included for program development work.

4a1e4

Using the NLS system, to achieve comparable data access with much more flexibility in the ways that subsets of the file could be

Access MIS via B6700

viewed, only the tape generation program would have to be developed, and a prototype of this is already available. The same level of file security would be assigned to the data. None of the above charges associated with the B6700 would be applicable since the system services have already been paid for by SRI. The data would be available for all working hours on the east coast,

4b

All other costs are already accounted for in the Marketing Information System that is being developed for the PDG group in Washington and need not be elaborated here.

4c

In conclusion, the only advantage to using the Burrough's system is that the data would always be available in the most updated state. However it was seen that archiving of the files would probably require that this updating be done in a batch mode at a given time each day if the file were not always assured of being on line. In addition under heavy load conditions the Burroughs is sometimes degraded, requiring the disconnection of user's not related to the SIME-DIME or Followthrough Projects. Yet this approach adds a substantial financial burden to the Washington Office in using this approach. If the disadvantage of accessing files that may not have the current week's updates is felt to be sufficiently onerous to warrant paying the premium for the alternative approach, then that approach can be pursued.

5

Access MIS via B6700

(J31809) 6-FEB-75 15:09;;; Title: Author(s): Pat Whiting
O'Keefe/PWO; Distribution: /HEB([ACTION]) DSM([INFO-ONLY]) ;
Sub-Collections: NIC; Clerk: PWO; Origin: < O'KEEFE,
CANDE,NLS;2, >, 5-FEB-75 11:56 PWO ;;;;###;

What I've done with the basic course

The Basic Course has been printed on the XGP. An XGP copy is in the SRI mail to JHB, 1

The basic course got a good work-out today at SRI-Wash. I stayed through most of the afternoon, and we finished (with good comprehension) the first pass and got to some of those things marked (2) where their readiness or their questions called for it (we did not do Sendmail). I will need to do a second pass with them to cover the remainder. 2

It worked well; they (Hal Bertrand & Maria Scott) found their copies useful and seemed to think that in general they'd be able to follow them for their own practice now. There were some minor exceptions--things written unclearly so they had to ask me for an interpretation or correction. These mostly were inconsistencies in conventions (where what to type was ambiguous) and minor inaccuracies in representing how a command comes out on the paper. Beginners read this stuff very literally, so the most trivial mistake bothers them, (I can point them out if you want). 3

One additional comment: the section on sndmsg and linking doesn't work smoothly--you have them quit Tenex, but they have to go back to link. I got in trouble with Goto Tenex; on top of CTRL=C which they previously learned, it proved quite confusing. I now feel I'd leave it out and stick with CTRL=C, just telling them to call NLS again after SNDmsg instead of CONTinuing. 4

In conclusion, I'd still do some shaking down on it (but then I'm sort of a perfectionist editor--always going back for one last thing). 5

What I've done with the basic course

(J31810) 6-FEB-75 16:11;;; Title: Author(s): Jeanne M. Beck/JMB;
Distribution: /JHB([ACTION]) FDBK([ACTION]) SGR([ACTION])
UD([INFO-ONLY]) ; Sub-Collections: SRI-ARC FDBK UD; Clerk: JMB;
Origin: < BECK, USEBASIC.NLS;2, >, 6-FEB-75 16:09 JMB ;;;;###;

Third Try to send mail by Journal

This is the third try.

MEJ 6-FEB-75 21:21 31813

Third Try to send mail by journal

(J31813) 6-FEB-75 21:21;;; Title: Author(s): Mil E. Jernigan/MEJ;
Distribution: /MEJ([ACTION]); Sub=Collections: NIC; Clerk: MEJ;

This is the Fourth Try from Robertazzi DIR

This is the fourth try to see if I can receive journal mail.

1

MEJ 6-FEB-75 21:26 31814

This is the fourth Try from Robertazzi DIR

(J31814) 6-FEB-75 21:26;;; Title: Author(s): Mil E. Jernigan/MEJ;
Distribution: /MEJ([ACTION]); Sub-Collections: NIC; Clerk: MEJ;

budgets, 'KWAC's and things....[directory pages]

FUNDING

1

The funding seems to be coming together... in 'drips' and 'drabs'!!!...I hope our mutual friend Duane at RADC will be able to add the ERL in after the fashion of last June...otherwise, much delays anticipated

1a

I may find it necessary to provide a portion -- \$15 to \$20K -- after the start of the new fiscal year.

1b

...of course, if things go as they have, in the past, we are likely to have all of it near the end of the fiscal year, when headquarters, AMC, wakes up and finds that it has to 'get rid' of the dollars... our dollars ... they have been holding back.

1b1

KWAC

2

I do hope to be there ... but --- wouldn't you know there would be a 'but' ---the Army has gone 'ape' about travel expenditures ... and the situation is very "iffy" ...

2a

I assume that you invited Dr. Ron Uhlig .. yes? I think that I had very definitely be present, if he is there...!

2a1

...someone has to "temper" his enthusiasm (read: empire building) [I might be mis-reading his motives, though...] Don't get me wrong ...Ron is ok, but he needs to be challenged from time to time to make it clear both to himself, and to his audience, just what his role is ... vis-a-vis future AMC networks, etc.,

2a2

...otherwise, his approach will lead to the disaster of having *ALL* AMC field agency commanders, and/or directors to ignore and even fight such plans!

2a2a

WISH ME LUCK ON TRAVEL PLANS

3

...I have threatened to take a 'vacation' and come anyway

3a

... but we'll see....

3a1

JOHN GILBERT'S DIRECTORY

4

Jim,

4a

...would you arrange to put 50 more pages into John Gilbert's directory? I suggest that you take 50 pages from the AYERS directory for this purpose.

4b

budgets, *KWAC's and things....[directory pages]

..kindly let both John Gilbert and myself know when it is accomplished. 4c

We really have a 'convert' ..zealot? ... in John Gilbert and Ron Uh19.... 4d

...ain't that somethin' .? 4d1

CONFIDENTIAL: ---John Gilbert is committed to the purchase of a share at OFFICE in FY76! ...how is OFFICE-2 coming? 4d2

SMT 6-FEB-75 21:43 31815

budgets, 'KWAC's and things....[directory pages]

(J31815) 6-FEB-75 21:43;;; Title: Author(s): Stan M. Taylor/SMT;
Distribution: /JCN([ACTION]) SMT([INFO-ONLY]) ; Sub-Collections:
NIC; Clerk: SMT; Origin: < TAYLOR, JCN/MSG,NLS;2, >, 6-FEB-75
21:41 SMT ;;;;###;

elephant meeting

contradictios have been alledged in our description of the elephant. 1
the revieewill be at 3:00 in the project room. 2
a recursive redefinition plan should emerge. 3

HSM 7-FEB-75 08:30 31816

elephant meeting

(J31816) 7-FEB-75 08:30;;; Title: Author(s): Herbert S.
Mitchell/HSM; Distribution: /HSM([ACTION]); Sub-Collections: NIC;
Clerk: HSM; Origin: < MITCHELL, HOLLIDAY,NLS;2, >, 7-FEB-75
08:26 HSM ;;;;###;

FEED 7-FEB-75 08:49 31817

Basic course - a few more go rounds

Gott linked to in the middle of my message - oh well I'll look forward to hearing from you!! Susan/FEED

Basic course - a few more go rounds

Jeanne, Glad to hear the SRI course went well. I would really appreciate hearing what things you found that were inconsistent etc. If it'd be easier to call do that and then we'll make another pass at the basic course. It's probably good to have someone fresh look at it and especially try it in a

1

FEED 7-FEB-75 08:49 31817

Basic course - a few more go rounds

(J31817) 7-FEB-75 08:49;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /JMB([ACTION]) JHB([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: FEED;

VISITLOG, JAN 30, 75, Alex Curran

VISITLOG, JAN 30, 75, Alex Curran

Alex Curran, Manager, Palo Alto Branch, Bell Northern Research

Larry Rojahn, Sr. Industrial Economist, Economics Dept, SRI

Deiter Lohr, Sr. Research Engineer, Economics Dept, SRI

purpose:

Rojahn is developing a multi-client proposal that involves Bell Northern Research. Curran is assuming the position of manager of the new branch which opened this month. Since BNR is affiliated with Bell-Canada, and in particular the Business Planning Group, our client, Rojahn thought it would be valuable to have a demo of the system that Curran has heard so much about and is planning to use.

Relationship to ARC

He will be using Bell-Canada's slot to access NLS in order to keep in touch with them and is very interested in NLS. I am working with him on the IFIP man-computer communication working group.

Background: BNR Branch

Curran is the former manager of Data Systems Research, for BNR in Ottawa, the Bell Labs of Canada. The purpose here is to establish an R & D Center to develop data communications equipment, and exploit the local market.

BNR PA is expected to reach 500-700 persons within the near future.

It was noted that telecommunication is currently analog based in most urban centers. Digital conversion is replacing the slow wire mode, and data channel technology such as fiber optics will be applied to intra as well as interurban communication and switching. It is anticipated that data rates will average 274 mega bits/sec (currently about 1.5 mega bits/sec). An eg. of such a development is the Bell System Digital Data Service being experimented with in the North East. One of SRI's main concerns would be the "techno-economic" tradeoffs.

Documentation:

The Augmented Knowledge Workshop (14724,)

VISITLOG, JAN 30, 75, Alex Curran

Coordinated Information Services (12445,)

1g2

JHB 7-FEB-75 08:55 31818

VISITLOG, JAN 30, 75, Alex Curran

(J31818) 7-FEB-75 08:55;;; Title: Author(s): James H. Bair/JHB;
Distribution: /UD([INFO-ONLY]) JCN([INFO-ONLY]) DCE([INFO-ONLY
]) RWW([INFO-ONLY]) RABY([INFO-ONLY]) MEH([INFO-ONLY]) ;
Sub-Collections: SRI-ARC UD; Clerk: JHB; Origin: < BAIR,
VISITLOG,NLS;3, >, 5-FEB-75 19:00 JHB ;;;;####;

SRI Standard Biography Format in NLS

An NLS format for SRI standard biographies has been developed for TAD utilizing Output Processor directives. The file structure (in template form) and the set of Output Processor directives are available if you're interested.

SRI standard Biography Format in NLS

(J31821) 7-FEB-75 10:29;;; Title: Author(s): Michael A.
Placko/MAP2; Distribution: /PWO([INFO-ONLY]) HEB([INFO-ONLY])
DCE([INFO-ONLY]) JHE([INFO-ONLY]) JCN([INFO-ONLY]) ;
Sub-Collections: NIC; Clerk: MAP2;

SUMMARY DESCRIPTION OF OFFICE-1

SRI-ARC

1

The augmentation Research center (ARC) at Stanford Research Institute (SRI) has developed, over a period of years under government sponsorship, a general-purpose interactive augmentation system centering about what they now call an "Augmented Knowledge Workshop," abbreviated below as "Workshop." The goal of ARC's work has been to evolve a prototype Workshop system that will significantly improve the performance of individuals and teams engaged in knowledge-work activities, where the Workshop "system" involves daily use of coordinated tools, procedures, methodologies, and languages.

2

ARC is a one-organization community of researchers and system developers, supported by several different contracts. The research and development activities of ARC are aimed at exploring the possibilities for augmenting individuals and groups in the performance of knowledge work with the help of computer aids. These aids range from offline batch to online real-time in nature. Exploratory development and operation of augmentation systems have been their substantive work.

3

In their experience, complex man-machine systems can evolve only in a pragmatic mode, within real-work environments where there is an appropriate commitment to conscious, controlled, and exploratory evolution. For over ten years the evolution of their "augmented Knowledge Workshop" system has developed within such an environment.

4

The next stage application is now beginning. They are involving a wider group of people so that they can begin to transfer the fruits of their past work to others, and so that they can obtain feedback needed for further evolution from a wider spectrum of applications than is possible in their Center alone. They are providing Workshop support service to selected groups who are willing to take extra trouble to be exploratory, but who:

5

1) are not necessarily oriented to being Workshop system developers (they have their own work to do),

5a

2) can see enough benefit from the system's application and from the experience of trying it so that they can justify the problems they will encounter as "pioneering" users, and

5b

SUMMARY DESCRIPTION OF OFFICE-1

3) can accept SRI's assurance that reliability, system stability, and technical application help will meet their conditions for risk and cost.

5c

Establishing a Workshop Utility and providing the type of service work proposed herein are part of ARC's long-term commitment to pursue the continued development of augmented knowledge workshops in a pragmatic, evolutionary manner. Their last few years of work have concentrated on the means for delivering support to a distributed community, for providing teleconferencing and other basic processes of collaborative dialogue, etc.--consciously aiming toward having experience and capabilities especially applicable to support remote and distributed groups of exploratory users for this next stage of wider-application bootstrapping.

6

They give particular emphasis to the requirement that each coherent group planning to integrate the proposed services into its working life should have at least one member serving as a "Workshop Architect." The function of this person is to be familiar in detail with both the needs of his or her organization and the capabilities they are proposing. The Architect knowing his group's needs and capabilities, will help introduce a workshop system into his organization (in appropriate evolutionary stages), meeting these needs. ARC personnel work closely with the Workshop Architect--in training him, in initially giving him significant help in his role, and in a continuing exchange of technical information.

7

SUMMARY DESCRIPTION OF OFFICE-1

(J31822) 7-FEB-75 10:32;;; Title: Author(s): David A. Potter/DAP;
Distribution: /DAP([ACTION]); Sub-Collections: NIC; Clerk: DAP;
Origin: < POTTER, OFFICE-1,NLS;1, >, 7-FEB-75 10:32 DAP ;;;;(origin)
####;

DAP 7-FEB-75 10:42 31823

NEW HAVEN PRE-PROPOSAL

(draft)< POTTER, DRAFT,NLS;1, >, 15-JAN-75 12:11 DAP ;;;;

1

JOB ANALYSIS OF TEACHING

1a

Until recently, it was appropriate for an administrator to assume that teacher preparation programs had some relationship to teaching; therefore, he/she was justified in evaluating his/her candidates' educational background as a means of determining who were the best. Use of other techniques and criteria, e.g., the interview or recommendation review, usually stemmed from the administrator's "gut feeling" about what teachers do, and therefore what they should bring to the job. Whether these practices resulted in the best teachers getting hired is not known for the most part, because of a dearth of pertinent and conclusive research; professionals still argue about what good teaching is, what criteria should be used to determine teaching effectiveness, and of course, what criteria should be used to select teachers.

1b

An increased or at least more apparent dissatisfaction with education has been evident in recent writings and has resulted in a general and healthy questioning of current practices in school personnel administration, as more demands for quality are made in return for the continuing rise in school costs.

1c

One group of questions being asked deals with the actual requirements of teaching, for it seems that we really do not have good information on this topic. What do teachers really do? How much time is spent on each of the many tasks of teaching? What is the relationship between the various tasks of teaching and pupil learning? Much of the research on teacher effectiveness focuses on studying one small aspect of teacher behavior, e.g., questioning, pupil-teacher interaction, probing, reinforcement techniques, non-verbal cueing; few studies (if any) have begun with a formal job analysis to describe the total task of teaching. This does not suggest that teacher behavior is totally unknown to those who investigate it, but it does suggest much of the research has been less than useful because it has not provided comparable statements about teaching as it occurs in many settings, grade levels, and subject areas.

1d

A basic question in this area is a deceptively simple one: how many different jobs are subsumed under the general heading of "teaching?" It seems clear that more than one function is involved. A high school

English teacher in a suburban school and a special education teacher in an urban ghetto do quite different things for a living -- but how different? Are the behaviors and thus the requirements the same for teaching first grade as those for teaching second grade, for teaching sixth grade in a ghetto school as in a school that is predominantly middle class, for teaching language arts and industrial arts? Many school people would jump at answering these questions but their answers only continue to reflect the folklore about teaching.

1e

The place to begin an effort to assist school administrators who must deal with the problems of personnel administration is with a complete, formal job analysis of teaching. The project proposed by the New Haven Public Schools and Educational Testing Service will do just that. Following is an outline of the purposes, questions, procedures, and organization for the proposed study.

1f

PURPOSES

1g

This study is designed to provide accurate information about the duties and functions of teachers in all capacities who work in the New Haven public schools. The information gleaned from job analysis procedures will be used to determine what is common to the job of teaching in various capacities and environments, and what is unique to teaching in each environment. This information will also be used to identify those attributes and skills related to the duties of teaching in New Haven, to prepare a procedure for evaluating inservice teacher performance, and to create and/or identify procedures for selecting teachers.

1h

PROCEDURES

11

Our basic approach to answering the questions raised above will be a longitudinal, multimethod approach to the identification and definition of the basic dimensions or tasks of teaching, leading to the development of a recommended set of selection procedures. The project will also include the collection, analysis, and evaluation of cross-sectional validity data on the recommended selection procedures, as well as the development of a plan for continuing collection and feedback of longitudinal validity data. The following is a brief overview of the steps in this process:

12

1. Initial identification and definition of basic teaching tasks. Two methods will be used:

131

a. The New Haven School Personnel Committee (described below) will be asked individually and collectively to develop statements of the basic tasks required of a New Haven teacher. These statements will be the focus of a three-day workshop, in which the Committee and the project staff will work together to complete the list of tasks.

131a

b. A review of the literature on job analysis of teaching and classroom observation will be conducted by the project staff in order to develop a second list of basic teaching tasks. This list will be used as a basis for discussion with the Committee, and as a starting point for the development of written and observation instruments.

131b

2. Conceptual identification of basic dimensions of teaching; sort basic teaching tasks along these dimensions. Procedures to be used are the same as those described in 1 (above).

132

3. Evaluate the adequacy of the task and dimension definitions from 1 and 2, using a multilevel, multimethod approach. The following are some of the steps and techniques in this process:

133

a. Group interview with teachers in each school to inform and involve them in the process. All teachers must understand fully the goals and procedures of the study, including especially the

extent to which confidentiality of data will be maintained. The importance of this point cannot be overstressed.

1j3a

b. Individual, structured interviews with selected teachers to explore their perception of their jobs. To what extent does the list of tasks developed in step 1 accurately reflect what these teachers do in their own jobs? How important are these tasks for successful performance? What is success as a teacher? How much time do they spend on each task? These are some of the questions to be covered in this interview.

1j3b

c. Administer a specially developed checklist/questionnaire to all New Haven teachers. This instrument will be designed to cover essentially the same points as the individual interview, but depth will be traded for scope. In addition, it will be used to collect general information about the school, grade taught, subject(s) taught, and basic biographical and demographic data on the teachers.

1j3c

d. Specially developed work diaries will be filled out by a subsample of the teachers at periodic intervals. The work diary provides a repeated measures approach to job analysis, providing data on the teaching tasks used by the teacher at different times of day, with different subject matter, different students, etc., at various points in the school year -- maximum data at minimum cost.

1j3d

e. Observation of a selected sample of the teachers. This is an indispensable supplement to the data collection techniques outlined above, all of which depend on the teachers' ability to recall and express their activities. In a real sense, observation is used to validate data collected in other modes. Observations will be continued beyond the limits of the classroom and the school day; it will be necessary to the extent that teachers in our earlier groups say that an important part of their work takes place at home, in the library, or anywhere beyond the classroom.

1j3e

f. videotape interview: Our goal in doing this would be to isolate the decisions made by the teacher in order to determine the knowledge needed to make the appropriate decision under the circumstances. For example, in order to make a "good" decision about the adequacy of a child's reading behavior, the teacher must know enough about the normal course of development in reading skill in children to evaluate meaningfully the child in question. To diagnose correctly or even notice a child's learning or other disability requires other specifiable knowledge. Such knowledge is probably crucial to effective teaching.

1j3f

A selected subsample of the teachers would be videotaped (approximately half an hour). After the class, a skilled interviewer would go over the tape with the teacher, stopping whenever interviewer or teacher observed a teacher decision. Each decision point would be explored to determine how the teacher had made the decision (alternatives considered, reasons for choice) and the knowledge needed to make the decision appropriately ("What did you need to know in order to decide? What other information or knowledge might have helped?").

1j3g

ADVISORY COMMITTEES

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Two advisory committees will be used:

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1. New Haven School Personnel Committee:
consisting of representatives of the local United
Federation of Teachers (9), school building
administrators (3), and central office
administrators and supervisors (3), this committee
will

111

a. facilitate cooperation of their peers with
the project;

111a

b. provide insight and advice regarding the most
effective means of data collection within the
district;

111b

c. review draft checklists of tasks to determine
the relevance of the materials to the job, and to
ensure that the vocabulary and the terminology
are appropriate and understandable to the
teachers;

111c

d. review final recommendations, especially as
to practicality and operational issues,

111d

2. ETS Technical Advisory Committee: This group
will consist of staff members who are competent in
tests and measurement, personnel selection,
performance appraisal, and the problems of minority
testing. This committee will

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a. provide technical reviews of plans, reports,
and instruments;

112a

b. review, and assist in interpreting, the data;

112b

c. advise on instrument design, research
methodology, and data analysis.

112c

ANALYSIS OF RESULTS

1M

The analysis will include, but will not be limited
to, such questions as: (1) Do teachers with different
teaching assignments perceive the job in the same way?
(2) Do teachers and principals perceive the job of
teaching in the same way? (3) What is the effect of
age, sex, ethnic background, and other variables on job
perceptions? (4) What are the basic underlying

dimensions of the job tasks as perceived by the teachers? (5) How do the empirically determined basic teaching tasks and dimensions relate to those originally suggested (steps 1 and 2 above)? (6) What is the relationship between perceived job content and observed job content? (7) What knowledge is required for job performance?

1n

Factor analytic techniques will be used to reduce the data to manageable proportions and to evaluate the fit between the basic dimensions of teaching as originally hypothesized and the data. Other correlational techniques will be used as appropriate; for example, multiple regression analysis might be used to relate performance on basic teaching tasks or dimensions to an index of teaching success (e.g., student growth, supervisor/peer/student evaluations).

1o

The results will be reviewed by both committees and will set the stage for the development of performance evaluation and selection procedure specifications. The teaching tasks that will be included in the final clustering will be those perceived by teachers as being important and related to successful job performance. If it is apparent that teachers who work in different environments perform different tasks, or that different weight must be given different tasks for various teaching positions, different job descriptions and selection and evaluation procedures will be developed for each.

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IDENTIFICATION OF PREREQUISITE ABILITIES

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The ETS Technical Advisory Committee will help describe the prerequisites for successful performance on the tasks of teaching identified through the job analysis. This will include factors that may be classified in the cognitive, affective, and psychomotor domains. The results will be presented to the New Haven Advisory Committee for review, recommendations, and approval.

1r

Appropriate Teaching Performance Assessment techniques and instruments will be developed by the ETS staff with the assistance of both advisory committees. These scales will consist of behavioral statements of what teachers do; these statements will be derived from the clusters of teaching tasks identified in previous phases of the study. The scales will be used

as one of several criteria in validating the selection procedures and instruments designed in the study.

1s

DEVELOPMENT OF TEACHER SELECTION PROCEDURES AND INSTRUMENTS

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The development of teacher selection procedures is the most difficult phase of the project. Our goal is a set of recommended tests and/or other procedures that will enable the city of New Haven to improve the precision, fairness, and accuracy of their teacher selection procedures. This is not a modest goal; to reach it we shall need not only sophisticated, thorough research, but also a great deal of dedicated effort from cooperating teachers and administrators.

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A crucial part of this effort will be directed toward the definition of criteria of successful teaching in New Haven schools. Some criteria will be easily agreed upon; clearly, for example, it is important for a teacher to be dependably present at his/her teaching station during school hours. But other criteria, even ones which are immediately obvious, are more controversial. Is student growth, for example, a reasonable criterion of teaching success? or participation in P.T.A. activities? or getting along with colleagues? Part of the job analysis effort will be directed toward this question; that is, we shall study teacher and administrator perceptions of the relative importance (and justice) of various criteria of effectiveness. Ultimately, however, teaching effectiveness is what school people -- teachers, students, administrators, community members -- say it is. All members of the educational community must therefore be involved in the identification of criteria of teacher success.

1v

The Technical Advisory committee will assist in identifying and reviewing all available tests and procedures that may be appropriate for New Haven. In instances where appropriate instruments or procedures are unavailable, ETS staff will seek to develop them. All instruments and procedures will be based on specifications obtained from the job analysis, and will be subject to review by the New Haven Advisory Committee.

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Material developed from these efforts will constitute a pretest form of the selection procedures, and will be administered to as many teachers in the

district as possible (sample size will in no event be less than 300). Care will be exercised to obtain as good a representation of minority teachers as possible. Using the performance appraisal procedures developed for this project, evaluations will be obtained of all teachers who participate in the pretest administration,

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Techniques such as regression analysis and discriminant function analysis will be used to select those selection measures which best predict (are significantly and meaningfully correlated with) criterion measures of job performance (e.g., student growth, supervisor/peer/student evaluations). These measures will be recommended to the Committee as the basic selection battery for New Haven teachers.

1y

Finally, a design will be developed which will allow New Haven to continue to evaluate the adequacy of its selection procedures through a longitudinal validity study that can be administered by its own staff at minimum cost. Such follow-up work is necessary not only to validate the selection procedures, but to ensure that they do not become "frozen," to guarantee that New Haven's selection procedures continue to fit the ever-changing reality of teaching in New Haven's schools,

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NEW HAVEN PRE-PROPOSAL

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