

DOCUMENT RESUME

ED 051 555

24

EA 003 549

**AUTHOR** Mahan, James; And Others  
**TITLE** Teachers and External Curriculum Consultants: Can They Function Effectively Together?  
**INSTITUTION** Eastern Regional Inst. for Education, Syracuse, N.Y.  
**SPONS AGENCY** National Center for Educational Research and Development (DHEW/CF), Washington, D.C.  
**BUREAU NO** BR-6-1440  
**PUB DATE** Mar 71  
**CONTRACT** OEC-1-7-061440-3062  
**NOTE** 22p.; Paper presented at ASCD Annual Meeting (26th, St. Louis, Missouri, March, 1971)  
**EDRS PRICE** EDRS Price MF-\$0.65 HC-\$3.29  
**DESCRIPTORS** \*Consultants, \*Curriculum Development, Curriculum Research, \*Elementary School Curriculum, \*Elementary School Teachers, \*School Statistics, Speeches, Statistical Data  
**IDENTIFIERS** Inquiry Approach

**ABSTRACT**

This paper reports on a 2-year field investigation of the frequency and content of interactions between curriculum consultants and elementary school teachers involved in implementing an inquiry-oriented curriculum. The report includes data generated by 45 consultants and 600 teachers in 53 diverse schools. The types of questions teachers ask consultants and the amount of time consultants actually devote to over 20 consulting activities form a basis for a discussion of ways to make both internal and external curriculum consultant services more effective. Related documents include EA 003 544, EA 003 545, EA 003 546, and EA 003 550. (Author/LLR)

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
OFFICE OF EDUCATION  
THIS DOCUMENT HAS BEEN REPRO-  
DUCED EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIG-  
INATING IT. POINTS OF VIEW OR OPIN-  
IONS STATED DO NOT NECESSARILY  
REPRESENT OFFICIAL OFFICE OF EDU-  
CATION POSITION OR POLICY.

ED051555

TEACHERS AND EXTERNAL CURRICULUM CONSULTANTS:  
CAN THEY FUNCTION EFFECTIVELY TOGETHER?

by

James Mahan  
Indiana University  
Bloomington, Indiana

Paul Halverson  
University of Georgia  
Athens, Georgia

Harold Harty  
Eastern Regional Institute for Education  
Syracuse, New York

ASCD Annual Meeting  
St. Louis, Missouri  
March 1971

Special Session 24, 71, 120  
Sheraton Jefferson East Room  
March 7 - 1:30 - 3:30 pm  
March 8 - 1:30 - 3:30 pm  
March 9 - 1:30 - 3:30 pm

EA 003 549

CAN TEACHERS USE CONSULTANTS EFFECTIVELY WHEN IMPLEMENTING  
A NEW CURRICULA?

FACTUAL FRAME OF REFERENCE FOR  
DISCUSSION OF CONSULTANT TYPOLOGY

\*BASED UPON THE EASTERN REGIONAL INSTITUTE FOR EDUCATION'S  
(ERIE'S) SCIENCE CURRICULUM INSTALLATION EFFORTS DURING 1968-69.\*

- 7 ERIE CONSULTANTS served
- 21 ELEMENTARY SCHOOLS OF DIVERSE CHARACTERISTICS
- 13 FULL DAY VISITS PER SCHOOL PER YEAR
- 3614 QUESTIONS OR REQUESTS RECORDED FROM  
328 TEACHERS AND PRINCIPALS OVER A  
5½ MONTH PERIOD (January - June, 1969)
- X-3 TEACHERS WERE ENGAGED IN THEIR SECOND YEAR OF  
SCIENCE - A PROCESS APPROACH INSTRUCTION
- 4th GRADE TEACHERS ENGAGED IN FIRST YEAR OF THIS INSTRUCTION
- \*854 AGREEMENT ON THE CLASSIFICATION OF QUESTIONS AND  
REQUESTS \*

The seven ERIE process-oriented science consultants in a non-  
directive, non-threatening way were expected to:

- Meet the requests made by the innovating teachers
- Teach demonstration lessons in the classroom
- Observe teachers and hold follow-up conferences
- Evaluate pupil achievement (sample basis)
- Answer science content questions
- Suggest appropriate teaching methods
- Assist in the use, assembly, management of equipment
- Describe the curriculum to visitors
- Collect data relative to the installation effort
- Hold grade level inservice sessions
- Make interpretations of the syllabus
- Answer all administrator questions relative to the program

Consultants did not enter classrooms unless invited by teachers.  
Any data collected by consultants, and the content of teacher-  
consultant conferences were not used in any way for local  
district teacher evaluation, determination of merit rating  
status, etc.

The Consultant Typology Was Employed  
To Shed Light on These Questions Raised  
By ERIE Curriculum Installation Team Members

---

1. How accurately could ERIE staff members predict the distribution of the questions being asked by pilot school teachers?
2. What types of questions actually are asked by 307 pilot school teachers?
3. Do question types vary from school to school?
4. Do question types vary according to demographic characteristics of the schools?
5. Do question types vary according to the identity of the consultant?
6. Do question types vary according to the grade level at which the teacher is assigned?
7. Do inexperienced teachers ask questions of a different nature than those asked by experienced teachers?
8. Who asks no questions of the consultant? Teachers who teach all the science exercises or teachers who teach none of the exercises?
9. Do teachers in pilot schools judged to have the most effective installations ask questions different in nature from those asked in schools judged to have the least effective installations?
10. How closely will the actual questions recorded on each teacher correspond with a retrospective, independent statement by teachers in June as to the nature of the questions they asked?
11. Does the nature of, or number of, questions asked by teachers in a pilot school signal a time for terminating consultant support to curriculum innovators?
12. In what areas do teachers expect external consultants to "have the answers"?
13. How can regularly scheduled consultant service to pilot schools be made more effective?
14. What implications can be drawn from Consultant Typology findings for use in future Consultant Inservice Education Workshops?

Name of Pilot School: \_\_\_\_\_ Consultant \_\_\_\_\_

Number of Visit: \_\_\_\_\_ Date of Visit: \_\_\_\_\_

Key to Three Digit No. Name No. Name No. Name No. Name  
Teacher Code No's. \_\_\_\_\_

P Principal \_\_\_\_\_

TYPOLOGY OF ROLE EXPECTANCIES HELD BY PILOT  
TEACHERS FOR EXTERNAL CONSULTANT

(Sept. 1969-June 1970)

**\*\*WRITE TEACHER CODE NUMBERS IN RECTANGLES TO RIGHT\*\***  
The first four questions asked and/or services requested by each pilot teacher of PCIC consultant during a counseling session are recorded. Two-thirds of teachers sampled each visit. Plus (+) or minus (-) prefixed to each abstaining logged. Principal recorded each time. "Abstaining" entries made if a full 4 expectancies not expressed. Global entry at end.  
**\*\* (WRITE UNCLASSIFIABLE QUESTIONS IN FULL ON BACK GIVING TEACHER NUMBER)\*\***

<p>A. <u>EDUCATING</u> - (explaining - reasoning - elaborating) (probably re curriculum rather than installation)</p> <p>→ <u>Employs unique science, psychology, methodology background of consultant.</u></p> <ol style="list-style-type: none"><li>1. (content) What is parallelepiped? How start aquarium?</li><li>2. (psychology) What is the role of the "hierarchy"?</li><li>3. (methodology) Help me to group the class for <u>SAPA</u>.</li><li>4. (modification) Help me restructure lesson for slow learners.</li><li>5. Teach a new teacher to use <u>SAPA</u>. (as opposed to "tell her about it")</li><li>6. Explain mass, weight, volume to me.</li></ol>	
<p>B. <u>DEMONSTRATING</u> - (teaching a class - displaying - operating equipment)</p> <p><u>Requires doing of educative nature. Stress is on <u>doing</u> with someone observing.</u></p> <ol style="list-style-type: none"><li>1. Please teach my class next visit.</li><li>2. Show me how to set up (operate) it.</li><li>3. Please give an exemplary competency measure.</li><li>4. Please "walk through" exercise M at the 3rd grade teacher meeting.</li></ol>	
<p>C. <u>EVALUATING AND MEASURING</u> - (observing class - judging quality of teaching, learning, or curriculum) (praising - reinforcing - agreeing when reassurance is merited)</p> <p>* <u>(Usually after the fact.)</u> * X</p> <ol style="list-style-type: none"><li>1. How do you think my kids did?</li><li>2. Please <u>observe</u> me teach next visit. *</li><li>3. How well am I teaching <u>SAPA</u>?</li><li>4. How does my "number of lessons" compare?</li><li>5. Why are certain tasks missed more often?</li><li>6. Does this lesson or material really meet the objectives?</li><li>7. That lesson went well, don't you think so?</li><li>8. How satisfactory is progress in this school?</li><li>9. How are other schools (teachers) doing?</li><li>10. Am I effective with my inquiry approach?</li></ol>	
<p>D. <u>INTEGRATING</u> - (transferring - generalizing - associating - involves other curriculum areas)</p> <ol style="list-style-type: none"><li>1. How can the "processes" be applied to math, social studies?</li><li>2. What <u>SAPA</u> teaching strategies fit best in other areas?</li><li>3. Help me establish a hierarchy for Language Arts instruction.</li><li>4. How can I blend <u>SAPA</u> into reading, recitations?</li></ol>	

E. PROCURING - (substituting - locating - financing) (all questions re equipment, money & stuff) "STUFF"

1. What can be used in place of colored cellophane discs?
2. Please send more mark sense cards and a copy of page 2 of Part A.
3. Where can I locate the item, and the money?
4. When will the kits be shipped?
5. Will the company replace or improve equipment?

F. MESSENGERING - (answering POLICY questions, probably re installation rather than curriculum. Questions Dr. Archer, Dr. Mahan, or informed secretary could answer.) Repeating a message. Stating your willingness or availability to meet, etc.

1. Explain the last letter from PCIP Director.
2. Will there be a workshop? When? Will ERIE go into grade 7?
3. Will competency measures be required next year?
4. Why can't ERIE support K-3 training next year?
- \* 5. We are meeting. Can you come? Will you be here on the 7th?
6. Who will come from ERIE to give the tests?

G. DISSEMINATING - (collaborating - diffusing) (beyond one room to non-pilot environment)

1. Arrange for Mrs. N. and student teacher to see demonstration.
2. Help me give program at PTA, Title III, State College.
3. Give talk (description) of new program from Florida State, etc.
- \* 4. All questions relative to Demonstration Days.
- \* 5. All questions relative to RAN site visits.
6. Tell our new teacher about S-APA--or any new curriculum.

H. INTERVENING - (between teacher-administrator, teacher-teacher, teacher-ERIE - a go between situation)

1. Talk to principal about a simpler petty cash routine.
2. Talk to administrator about "released time" I was promised.
3. See if you can get my kit back from Mrs. T.
4. Can't you talk ERIE into policy change.
- \* 5. Please schedule a grade level meeting (see principal and/or other teachers ~~to come~~)
6. Try to get custodian to fix it for me.

I. LEGITIMIZING - (consultant knows reassurance is not merited)

1. Do you think it necessary to teach all activities in "d"?
2. Can't I wait until spring to teach a lesson with "leaves"?
3. Wouldn't it be better to "tell" them how brine shrimp eggs hatch?
4. Don't you think small groups are a bit "much"?
5. Don't you think one lesson taught with "quality" is sufficient for the year?

J. OBFUSCATING - (beating around bush)

1. Explain grade 7 program and when available, i.e. request made by kindergarten teacher.
2. Why study S-APA when kids can't read?
3. Please explain everything about birds.

K. REJECTING - (hostility to program)

1. How do you expect me to find time?
2. When are we going to teach "real" content?"
3. Why is there so much pressure?
4. Why should I do those blasted questionnaires?

L. SOCIALIZING - (does not include initial "how are you today")

1. What did you think of the game, movie, snowstorm?
2. Did you know Pat was a "Mansfield Watkins"?
3. Is it true that Mary has fixed the date?

M. CLERICAL - CUSTODIAL -

1. Would you unpack kits and put them in closet?
2. Will you fill out my forms for me? (teacher then departs)
3. Will you teach my class while I go smoke a cigarette?

N. ABSTAINING - (teacher avoids consultant or asks nothing)  
(Use + if this is justified and--if not)

1. No questions asked; no services requested.

O. GLOBAL - (In consultant's opinion the teacher basically was asking for help or service in the following area.)

TOTAL ENTREES  
FOR A-N = \_\_\_\_\_ \*

\_\_\_\_\_ Teachers recorded + \_\_\_\_\_ principal = \_\_\_\_\_ people x 4 entrees each = \_\_\_\_\_ total  
and \_\_\_\_\_ people x 1 global entree each = \_\_\_\_\_  
global entrees.

\_\_\_\_\_  
Signature of Consultant

COMMENTS:

DO YOU HAVE 4 ENTREES PLUS 1 GLOBAL PER EACH TEACHER?

6  
5

Materials for 1971 ASCD Conference: March, 1971

**Can Teachers Use Consultants Effectively When Implementing New Curricula? Problems and Findings**ABSTRACT OF THE CONSULTANT TYPOLOGY

<u>Category of Questions and Requests</u>	<u>Abstract of Category Definition</u>	<u>Example Questions or Requests</u>
A. Educating	Queries related to science content, learning psychology, teaching, methodology, curriculum modification.	What is meant by a two-stage classification? How could I group the class to use materials more effectively?
B. Demonstrating	Requests for the consultant to personally perform or demonstrate in the presence of the teacher.	Please teach exercise "m" in my room next visit. Please show me how to operate vacuum pump.
C. Evaluating and Reassuring	Queries or requests whereby consultant must judge quality of teaching, learning, progress, curriculum.	Please observe me teach next visit. Are my pupils displaying process skills as they work?
D. Integrating	Queries related to transfer of process skills to non-science areas.	How can the classifying process be used in social studies? Help me establish behavioral objectives for mathematics.
E. Procuring	All questions and requests related to equipment and money.	What can be used in the place of cellophane discs? Please mail me these missing pages.
F. Messengering	Questions related to ERBE policy, repetition of previous communication, simple statement of availability.	Will competency measure cards be required next year? Why can't ERIE support K-3 training in 1970-71? Will you be here on January 21?
G. Disseminating	Dissemination questions involving discussion of the science program outside the pilot room and all queries relative to demonstration days and program visitors.	Please give a talk about the program at PTA. What shall I do in this room on Demonstration Day?
H. Intervening	All questions or requests where initiator desires consultant to be middle man in accomplishing something the initiator is reluctant to attempt.	Please talk to the principal about a simpler petty cash routine for this school. Can't you go get the materials back from Mrs. Filch? She has kept them for eight weeks.



Category of Questions and Requests

Abstract of Category Definition

Example Questions or Requests

- |                       |   |   |
|-----------------------|---|---|
| I. Legitimizing       | Requests for illegal approval or un-merited reassurance.                              | Don't you think one or two exercises taught with quality are enough for the year?<br>Don't you think I could tell them this information faster than letting them discover for themselves? |
| J. Obfuscating        | Questions designed to beat around the bush and avoid orientation to the task at hand. | Please explain the Grade 12 extension of this program (asked by kindergarten teacher). Please talk to each pupil about his jack-O-lantern before we discuss science.                      |
| K. Rejecting          | Questions loaded with hostility to consultant, curriculum, or ERIE.                   | How do you expect me to find time to do this stuff? When are we going to teach "real content"?  |
| L. Socializing        | Social questions like "Where did the principal get that darling orange mini skirt?"   | Did you know Gloria was a "Syracuse Hawkins"?<br>Will you play bridge with us at lunch?<br>Is it true that Mary has set the date?   |
| M. Clerical-Custodial | Requests for the consultant to do the teacher's, secretary's, or custodian's work.    | Please fill out my forms for me. Please put the materials back in the kit for me.   |
| N. Abstaining         | Absence of any questions or requests during a consultant-teacher encounter.           | No, I don't have any problems or questions.<br>Come back some other time.   |

Consultant Typology Prediction Sheet

1. Professional Position of Participant: \_\_\_\_\_

2. City: \_\_\_\_\_ 3. State: \_\_\_\_\_

4. Are you (or have you been) a curriculum supervisor or consultant?  
Circle one:

yes      no

5. Are you (or have you been) a recipient of the supportive services  
of a curriculum supervisor or consultant? Circle one:

yes      no

6. Please predict the percentage of teacher queries you think fell  
into each one of the 14 Consultant Typology Categories listed  
below considering the ground rules discussed.

A EDUCATING	_____ %
B DEMONSTRATING	_____ %
C EVALUATING AND REASSURING	_____ %
D INTEGRATING	_____ %
E PROCURING	_____ %
F MESSENGERING	_____ %
G DISSEMINATING	_____ %
H INTERVENING	_____ %
I LEGITIMATIZING	_____ %
J OBFUSCATING	_____ %
K REJECTING	_____ %
L SOCIALIZING	_____ %
M CLERICAL-CUSTODIAL	_____ %
N ABSTAINING	_____ %
	_____ % Total

Please adjust your predictions so that they add up to 100%

Predictions of Consultant Typology Distributions  
Compared to Final Results

- I = Mean of seven ERIE Consultant Predictions, December, 1968
- II = Mean of 16 predictions by professor-consultant site visitors June 1969
- III = Mean of 26 predictions by professor-consultants, June 1969 workshop

Category	I	II	III	Results Jan - Feb.	Full Results Jan-June	ERIE Predict Minus Full
Educating	23	18	18	19	21	+2
Demonstrating	10	11	14	4	5	+5
Eval. & Reassuring	15	12	16	14 1/2	14	+1
Integrating	1	3	4	0	1/2	+1/2
Procuring	11	16	10	13	9	+2
Messengering	5	5	5 1/2	1	2	+3
Disseminating	5	3	4 1/2	3	3	+2
Intervening	2	4	2 1/2	2	1	+1
Legitimizing	1 1/2	5	6	2	2	-1/2
Obfuscating	1	4	4	1/2	1/2	+./2
Rejecting	2	4	4 1/2	1	2	0
Specializing	11	5	5	14	13 1/2	+1/2
Clerical-Custodial	2 1/2	4	2	1	1/2	+2
Abstaining	10	6	4	25	26	-16

Distribution By Consultant Of Questions Asked and Requests Made  
By Pilot School Teachers

Category	Consultant Identity							
	A	B	C	D	E	F	C, F, G	G
	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
Educating	23	38	20	18	18	11	24	10
Demonstrating	5	3	10	1	3	5	15	4
Evaluating & Reassuring	7	5	24	10	17	24	14	8
Integrating	0	1	3	0	0	0	1	0
Procuring	14	3	9	7	9	10	12	10
Messengering	1	1	7	3	2	3	3	1
Disseminating	4	1	2	1	1	4	10	5
Intervening	1	1	2	0	3	1	1	0
Legitimatizing	3	1	7	1	2	0	0	1
Obfuscating	0	0	1	0	1	0	1	3
Rejecting	1	5	4	1	1	1	3	9
Socializing	7	13	5	4	6	29	7	21
Clerical-Custodial	1	1	1	0	0	1	1	0
Abstaining	<u>33</u>	<u>24</u>	<u>5</u>	<u>54</u>	<u>37</u>	<u>11</u>	<u>8</u>	<u>28</u>
N (queries) 3614	773	642	328	357	402	833	155	124

Task Orientation of Teacher Queries in Relation to  
Environmental Characteristics of School Community

Combined Categories	Depressed Rural Towns (N,I,A)	Parochial (City) (U,V)	City Public Integrated (K,J,R)	Small City (S,I,F)	Middle Class Rural Towns (D,P,Q)	Middle Class Suburban Near Large Cities (C,B,E,T,G,H)
Installation Oriented Queries Categories A,B, C, D, E, G	60	56	48	47	49	57
Non-Installation Oriented Query: Categories I,J,K, L,M,N	37	44	46	52	46	40

Distribution by Schools of Questions Asked and Requests Made By  
Innovating Teachers of External Consultants  
(January to June, 1969)

Percentage of Questions per Category

School	Consultant	No. Queries	Educating		Demonstrating		Evaluating & Reassuring		Integrating		Procuring		Messengering		Disseminating		Intervening		Legitimizing		Obfuscating		Rejecting		Socializing		Clerical-Custodial		Abstaining	
			%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
C	A	87	23	5	8	0	16	2	0	3	3	0	1	9	0	26														
U	A	59	12	5	5	0	27	0	0	0	2	0	0	2	3	44														
T	A	235	21	8	6	0	18	1	0	0	4	0	1	9	1	41														
I	A	4	25	3	10	1	6	0	2	1	4	0	2	6	0	40														
A	A	168	27	4	5	0	13	1	14	0	2	1	1	6	1	25														
D	B	426	35	3	4	2	4	1	0	2	1	1	13	1	27															
F	B	216	43	2	7	1	3	1	1	0	0	0	3	11	2	26														
E	C	236	21	11	24	3	9	7	2	1	7	1	3	4	2	5														
R	C	92	15	7	23	3	9	5	2	5	9	2	7	9	0	3														
L	D	159	28	1	4	0	5	1	2	0	1	0	1	8	0	49														
S	D	198	10	1	15	0	8	4	0	0	1	1	1	2	0	57														
H	E	141	22	4	13	0	12	1	3	5	4	0	1	4	0	31														
J	E	133	17	2	17	0	13	2	0	3	2	0	0	8	0	36														
K	E	128	14	3	20	0	3	2	0	1	2	1	2	7	0	45														
G	F	148	8	5	32	0	14	0	4	0	0	0	29	0	8															
Q	F	157	18	7	27	0	6	0	9	3	0	2	0	20	0	8														
B	F	96	14	1	21	0	4	0	7	0	0	3	39	0	11															
V	F	60	17	3	43	0	2	0	0	0	0	0	32	2	1															
H	F	180	8	12	16	0	8	1	2	1	0	0	26	5	21															
P (3-4)	F	192	7	1	19	0	16	12	0	1	0	0	2	32	1	9														
P (K-2)	G	124	10	4	8	0	10	1	5	0	1	3	9	21	28															
N	G, H, C	155	24	15	14	1	12	3	11	1	1	0	2	7	1	8														
Totals		3,614	21	5	14	1/2	9	2	3	1	2	1/2	2	11	1/2	26														

Distribution of Pilot School Faculty Questions and Requests by Grade Level of the Teacher.

Group	N Question	Educating	Demonstrating	Evaluating & Reassuring	Integrating	Procuring	Messongering	Disseminating	Intervening	Legitimizing	Obfuscating	Rejecting	Socializing	Clerical- Custodial	Abstaining
		#	#	#	#	#	#	#	#	#	#	#	#	#	#
Principals	284	14	1	10	1	10	23	21	6	0	1	0	5	0	9
Kinlergarten	495	20	4	15	1	7	5	6	1	1	0	2	16	1	22
Grade 1	714	20	5	17	1	7	1	3	1	1	0	3	12	1	29
Grade 2	909	20	5	13	0	7	2	1	1	2	1	2	17	1	29
Grade 3	744	18	5	17	0	7	3	2	2	4	1	1	11	1	27
Grade 4	568	30	6	12	0	16	3	1	2	1	0	4	6	1	18

\*Grade 4 teachers were implementing Science--A Process Approach for the first time in 1968-69. Teachers of grades K-3 had taught the program during 1967-69. Fourth grade science kit materials did not arrive until February 1, 1969. Therefore, most fourth grade teachers were initiating the new science instruction at the same time that consultants began to use the Typology. The distribution of fourth grade teacher queries differs in several ways from the distributions of K-3 teachers.

Years of Teaching Experience and the Distribution of Consultant Typology Entries.

Category	Teacher Experience		
	<u>Neophytes</u>		<u>Veterans</u>
	Less Than 1 year Experience ‡	One to 10 year's Experience ‡	More than 10 year's Experience ‡
Educating	20	34	16
Demonstrating	3	2	6
Evaluating	17	16	10
Integrating	1	1	1
Procuring	22	11	13
Messengering	1	0	6
Disseminating	2	0	3
Intervening	2	2	3
Obfuscating	0	0	2
Rejecting	0	2	4
Socializing	5	14	9
Clerical-Custodial	1	1	2
Abstaining	25	16	30
N (Teachers)	20	20	20
N (Queries)	151	215	200



Distribution of Consultant Typology Questions and Requests By Teachers Who Taught the Most Exercises and Teachers Who Taught the Least Exercises During 1968-1969.

Category	Top 5 Teachers Per Each Grade (K-4) N=25 %	Bottom 5 Teachers Per Each Grade (K-4) N=25 %
Educating	17	21
Demonstrating	5	4
Evaluating and Reassuring	21	11
Integrating	1	1
Procuring	9	4
Messengoring	0	3
Disseminating	5	0
Intervening	1	1
Legitimatizing	1	3
Obfuscating	0	1
Rejecting	2	4
Socializing	16	10
Clerical-Custodial	0	0
Abstaining	22	36

Distribution of Queries of Teachers who Taught the Most Exercises and Teachers who Taught the Least Exercises During 1968-69.

CATEGORY COMBINATIONS

<p><u>*Negative Queries</u></p> <p>Legitimatizing</p> <p>Obfuscating</p> <p>Rejecting</p> <p style="text-align: center;">↓</p>	<p><u>Installation Oriented Queries</u></p> <p>Educating</p> <p>Demonstrating</p> <p>Evaluating and Reassuring</p> <p>Integrating</p> <p>Procuring</p> <p>Disseminating</p> <p style="text-align: center;">↓</p>	<p><u>Non-Installation Oriented Queries</u></p> <p>Legitimatizing</p> <p>Obfuscating</p> <p>Rejecting</p> <p>Socializing</p> <p>Clerical-Custodial</p> <p>Abstaining</p> <p style="text-align: center;">↓</p>
--	--	---

Group	N	t	t	t
Top Teachers	25	3	58	41
Bottom Teachers	25	8	41	54

\*These 3 query types also repeated in Non-Installation Oriented Combination.

Distribution of Consultant Typology Questions and Requests  
in Schools Rated by ERIE as Most Successful and Least  
Successful Installers of the Science Curriculum.

Category	Two Most Successful Schools (N & A) ‡	Two Least Successful Schools (R & K) ‡
Educating	26	15
Demonstrating	9	5
Evaluating and Reassuring	10	22
Integrating	0	1
Procuring	12	5
Messengering	2	3
Disseminating	12	1
Intervening	1	3
Legitimizing	1	5
Obfuscating	1	1
Rejecting	2	4
Socializing	7	8
Clerical-Custodial	1	0
Abstaining	16	29

Actual Distribution of Global Entries on the Consultant Typology, Actual  
Distribution of Teacher Queries, Selected Predictions and Retrospections  
Related to Distribution of Teacher Queries

	N	Education	Demonstrating	Evaluating & Reassuring	Integrating	Procuring	Messengering	Disseminating	Intervening	Legitimizing	Obfuscating	Rejecting	Socializing	Clerical-Custodial	Abstaining
A. Total Global Entries - 21 Schools	(936)	24	5	15	0	10	3	6	1	2	0	3	7	1	23
B. Total Teacher Queries	(3614)	21	5	14	4	9	2	3	1	2	4	2	134	4	26
C. Consultant Staff Predictions	(7)	23	10	15	1	11	5	5	2	14	1	2	11	24	10
D. Teacher Retrospective Estimates	(264)	11	7	8	2	15	6	2	2	4	*	*	8	2	33
E. Difference Between Global Percentages and Total Query Percentages (Row A - Row B)		+3	0	+1	-4	+1	+1	+3	0	0	-4	+1	-64	+4	-3
F. Difference Between Global Percentages and Teacher Retrospective (Row A - Row D)		+3	-2	+7	-2	-5	-3	+4	-1	-2	*	*	-1	-1	-10

Teacher Retrospective Estimates of the Distribution of Their Questions and Requests across the Consultant Typology Compared to Final Results, and to Consultant Predictions.

\* Returns from 264 of 307 teachers \*

Category	Teacher Retrospective Estimates	Consultant Predictions	Final Results (5 mos.)	Results minus teacher estimates
Educating	11	23	21	+10
Demonstrating	7	10	5	- 2
Evaluating and Reassuring	8	15	14	+ 6
Integrating	2	1	½	-1½
Procuring	15	11	9	- 6
Messengering	6	5	2	- 4
Disseminating	2	5	3	+ 1
Intervening	2	2	1	- 1
Legitimatizing	4	1½	2	- 2
Obfuscating	*	1	½	*
Rejecting	*	2	2	*
Socializing	8	11	13½	+5½
Clerical-Custodial	2	2½	½	-1½
Abstaining	33	10	26	- 7

Difference between total percentage of educating, demonstrating, and evaluating and reassuring queries as indicated by teachers in retrospect and as recorded by each consultant.

In the first three categories:

- Consultant A - Recorded 5% more queries
- Consultant B - Recorded 25½% more queries
- Consultant C - Recorded 30% more queries
- Consultant D - Recorded 7% more queries
- Consultant E - Recorded 9% more queries
- Consultant F - Recorded 26% more queries

RAN and ERIE Consultant Activity

TABLE IV

The Distribution of Teacher Questions and Requests  
as Recorded on the Consultant Typology  
by Five Different Consultants OVER A FULL SCHOOL YEAR

CATEGORY	SID %	JUDD %	TY %	LUKE %	PAT %
A. Educating	4	19	31	21	23
B. Demonstrating	8	0	14	5	10
C. Evaluating & Reassuring	3	7	40	14	21
D. Integrating	11	0	0	½	2
E. Procuring	6	0	8	9	8
F. Messengering	4	10	1	2	3
G. Disseminating	3	1	1	3	2
H. Intervening	4	1	0	1	1
I. Legitimizing	8	3	1	2	3
J. Obfuscating	2	7	0	½	½
K. Rejecting	3	5	0	2	½
L. Socializing	11	1	2	13½	4
M. Clerical-Custodial	1	0	0	½	1
N. Abstaining	32	46	2	26	21

Whose distribution do you believe is "best?" \_\_\_\_\_

Whose is second "best?" \_\_\_\_\_; third "best?" \_\_\_\_\_;  
fourth "best?" \_\_\_\_\_; fifth "best?" \_\_\_\_\_

What reasons did you employ in making your selection of the person with the "best" distribution?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SECOND YEAR RESULTS

DISTRIBUTION BY TYPE OF SCHOOL OF QUESTIONS ASKED AND REQUESTS MADE BY  
 INNOVATING TEACHERS OF EXTERNAL CONSULTANTS  
 (September to April, 1969-70)

1969-70 SECOND YEAR RESULTS			PERCENTAGE OF QUESTIONS PER CATEGORY													
			Educating	Demonstrating	Evaluating and Reassuring	Integrating	Procuring	Messengering	Disseminating	Intervening	Legitimizing	Obfuscating	Rejecting	Socializing	Clerical-Custodial	Abstaining
NUMBER AND TYPE OF SCHOOLS	NUMBER OF CONSULTANTS	NUMBER OF QUERIES														
20 PILOT SCHOOLS	23	9,003	26	11	19	2	7	3	3	1	5	2	1	6	1	13
17 NEW YORK DEMONSTRATION SCHOOLS	17	4,493	27	10	23	1	6	3	2	1	2	0	1	4	1	19
15 PENNA. DEMONSTRATION SCHOOLS	15	3,537	22	10	19	3	8	4	2	1	3	1	1	5	1	20
/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
* 21 PILOT SCHOOLS 1968-69 COMPARISON FIGURES	8	3,614	21	5	14	4	9	2	3	1	2	4	2	13	4	26