DOCUMENT RESUME

ED 200 940

CS 006 033

AUTHOR TITLE

Wilcox, Wayne C.: And Others

Effects of Study Strategy and Isolated Summaries on Comprehension and Recall of Prose Material.

SPONS AGENCY National Science Foundation, Washington, D.C.

PUB DATE GRANT

Apr 79 NSF-SED-76-1650

NOTE

37p.: Paper presented at the Annual Meeting of the American Educational Research Association (San

Francisco, CA, April 8-12, 1979).

EDRS PRICE DESCRIPTORS MF01/PC02 Plus Postage.

*Advance Organizers; College Students: Higher

Education: *Reading Comprehension: *Reading Research:

Reading Skills: *Recall (Psychology): *Study

Skills

IDENTIFIERS

*Mathemagenic Activities: *Prose Learning: Reading

Strategies

ABSTRACT

Ninety-three college students studied prose material about communications. An experiment employing both isolated summaries and a study strategy was conducted to examine how mathemagenic behaviors would facilitate students' comprehension and recall of the prose material they studied. Some students were given material containing interspersed summaries enclosed in boxes of main ideas, and some were directed to follow a three-step study strategy as they read the material. The isolated summaries interacted with the study strategy in such a way that (1) the use of the study strategy improved students comprehension and recall of the material without isolated summaries, and (2) the inclusion of the isolated summaries in the material facilitated its comprehension by students who followed study strategies of their own making. (Author/RL)

Reproductions supplied by EDRS are the best that can be made from the original document. ******************



U.S. DEPARTMENT OF EDUCATION NATIONAL INSTITUTE OF EDUCATION LDUCATIONAL RESOURCES INFORMATION GENTER (EH:C)

The document has been reproduced as to ψ and from the person of erganization originating it

Minor change, have been made to improve reproduction quality.

 Points of view or opinions stated in the docrent do not necessarily impresent afficial NIE position or policy

Effects of Study Strategy and Isolated Summaries on Comprehension and Recall of Prose Material 1

Wayne C. Wilcox
Boyd F. Richards
M. David Merrill
Ted C. Hindmarsh

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY Wayne C. Wilcox

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Presented at the Annual Meeting of the

American Educational Research Association

San Francisco

April, 1979

 1 This research was supported in part by Grant No. SED 7 6-1650 from the National Science Foundation.



Effects of Study Strategy and Isolated Summaries on Comprehension and Recall of Prose Material

Mathemagenic behaviors (Rothkopf, 1965) are thought of as learner activities which influe a input processes to sensory registors, control processes in memory, and other processes involving retrieval of information and selection of responses for cutput (Barry, 1974, p. 319). Consequently, mathemagenic behaviors also affect recall and comprehension of information supplied through instruction. Some factors which in turn affect mathemagenic behaviors include aptitudes of learners, characteristics of the information in the instruction available to learners and strategies employed by learners in studying the instruction.

Personal aptitudes are learner traits which, once acquired, remain fairly stable and are not easily modified. Cognitive abilities and styles are examples of personal aptitudes which greatly influence learning.

Presentation characteristics are variations in the content and representation of information conveyed by instruction. Sequence, mode (e.g., visual or verbal), rate, form (e.g., generalities or instances), and difficulty level are some examples of presentation characteristics.



Study strategies are performances of particular sets of learning behaviors which are under the conscious control of students. Mnemonic techniques, underlining and summarizing key ideas, and thinking up new examples of concepts are a few commonly used study strategies.

Merrill (1975) described the danger of students becoming system dependent when decisions about presentation characteristics are made for them instead of by them. A learner-control approach may tend to lessen this danger. But, system independence is more assured when students are versatile enough to learn effectively from numerous combinations of presentation characteristics. In other words, to be fully system independent, a student should be able to adapt him or herself to whatever instructional treatment he/she encounters.

A student's ability in adapting to instructional treatments is enhanced by his/her knowing how and when to apply specific study strategies matched to his/her personal aptitudes and the host of presentation characteristics he/she is likely to face. This suggests a study strategy training approach for improving instruction. Such an approach would test students in order to detect their pertinent personal aptitudes. Then, each student would be trained how to employ a number of study strategies appropriate to his/her personal aptitudes. He/she also would be taught to distinguish typical sets of presentation characteristics for which each of



the study strategies is best suited.

Unfortunately, very little research has investigated study strategy interactions with personal aptitudes and presentation characteristics (Wilcox, Note 1). Also, there have been few efforts in training study strategies (Dansereau, Actkinson, Long, & McDonald, 1975). The purpose of this experiment was to investigate ar interaction between the presentation characteristic of summary isolation and a particular study strategy.

Both the isolated summaries and the study strategy employed in this experiment were expected to prompt mathemagenic behaviors which would facilitate the students' comprehension and recall of the prose material they studied.

Isolated summaries. Some of the students in the experiment received prose material in which each section (material under one subheading) was followed by a concise description enclosed in a box of the most general and important concepts or principles in that section of prose. These isolated summaries were thought to improve comprehension and recall of the reading passage for two reasons.

First, the isolation of the summaries was expected to improve students' recall of those generalities. Von Restorff (1933) observed that isolation of an item against a homogeneous background facilitates recall of that item. Other memory



experiments also noted this phenomenon. A review of this research was made by Wallace (1965). More recently, three studies (Cashen & Leicht, 1970; Crouse & Idstein, 1972; Fowler & Barker, 1974) found that students given prose material in which certain words, phrases, or sentences were underlined or highlighted answered correctly more posttest questions developed from the underlined or highlighted portions of the material than students given the same material without any underlining or highlighting.

Second, the isolated summaries were expected to act as organizers of the prose material that they subsumed.

Organizers are thought to provide superordinate conceptual frameworks in which subordinate information can be organized. Given the assumption that cognitive structure is hierarchical in terms of highly inclusive generalities under which are subsumed less inclusive subgeneralities and other information, it seems reasonable that the ideational anchorage supplied by organizers would improve comprehension and recall of subordinate information. Several studies (Allen, 1970; Ausubel, 1960; Ausubel & Fitzgerald, 1961, 1962; Ausubel & Youssef, 1963; Bauman, Glass, & Harrington, 1969; Fitzgerald & Ausubel, 1963; Kuhn & Novak, 1971; Proger, Taylor, Mann, Coulson, & Bayuk, 1970; Rickerds, 1975; Schnell, 1972) have shown that isolated verbal organizers aid student comprehension

and recall of fairly long prose passages. Also, experimental results of Cashen and Leicht (1970) indicated that when main ideas in prose are isolated by being made conspicuous, they function as organizers and increase recall of the prose material to which they refer.

Study strategy. Some of the students in the experiment were directed to follow a three-step study strategy. After reading each section of the reading material, the strategy asked the students first, to underline the most important ideas; second, to think up at least one example for each idea they underlined; and third, to summarize in their own words the main ideas they underlined. This study strategy was expected to better the comprehension. and recall of the prose material by performing the same functions as the isolated summaries (i.e., producing the isolation effect and acting as organizers). addition to performing these functions, the study strategy was expected to further improve comprehension and recall by encouraging the students to construct meanings for the text.

Step one of the study strategy stimulated students to construct meanings for the text by asking them to evaluate which sentences or phrases of each section of the text best described the most important ideas of that section. study conducted by Fowler and Barker (1974), students who were asked to highlight words and phrases they read performed better than students who were given material in which key words and phrases already were highlighted. Davidson (1977) reported that students who generated their own headings, marginal words and phrases, and underlining scored higher than students who received material in which headings, marginal words and phrases, and underlining already were provided. Rickards and August (1975) also found that students directed to underline achieved recall scores that were superior to those of students not asked to underline. Furthermore, of the students directed to underline, those who were told to underline the higher-level main ideas recalled the material better than those told to underline less abstract statements.

Step two of the study strategy stimulated students to construct meanings for the text by asking them to apply the main concepts or principles to develop new instances of those concepts or principles.

Step three of the study strategy stimulated students to construct meanings for the text by asking them to generate

their own summaries of the main ideas. Several studies have produced evidence that student note-taking, which typically consists of paraphrasing the main ideas, benefits comprehension and recall of prose instruction (Aiken, Thomas, & Shennum, 1975; Crawford, 1925; DiVesta & Gray, 1972, 1973; Fisher & Harris, 1973; McHenry, 1969; Peters & Harris, 1970). Doctorow, Wittrock, and Marks (1978) also found that directing students to generate sentences about the paragraphs they read helped improve comprehension of those paragraphs.

Interaction of isolated summaries and study strategy. The isolated summaries were expected to undermine the effectiveness of the study strategy. Students given material with isolated summaries would be unlikely to select the main ideas for each section because these main ideas already were identified for them. Furthermore, if the initial step of the study strategy were omitted, students would be unlikely to understand the main ideas sufficiently well to readily perform steps two and three of the strategy. Thus, being unable to do what was asked of them, these students would tend to become frustrated and anxious. This probably would interfere with their learning the material.

Hypotheses. It was hypothesized that isolated summaries will interact with the study strategy used in this experiment according to the following pattern. Students given material

without isolated summaries and directed to follow the study strategy will comprehend and remember the reading material better than students given material with isolated summaries and not given the study strategy, who will perform better than students given material with isolated summaries and directed to follow the study strategy, who will perform better than students given material without isolated summaries and not given the study strategy.

<u>Method</u>

Students

One-hundred fifteen students (70 males, 45 females; 57 freshmen, 30 sophomores, 21 juniors, 7 seniors) participated in this study. They were enrolled in an introductory mass communications class at Brigham Young University. Their mean age was 20.25 years.

Materials

The second lesson in the college textbook entitled Introduction to Mass Communications (Hindmarsh, 1975) was used as the instructional text. It was divided into five sections, each preceded by a subheading label.

Instructional booklet. Two versions of instructional booklets were prepared. In the first version, each section of the instructional text was followed by a concise description enclosed in a box (isolated summary) of the most general and

important ideas of that section of prose. Figure 1 presents the subheading label and isolated summary of each section of the instructional text. Figure 2 shows the second section of the instructional text with its isolated summary.

Insert Figures 1 and 2 about here

The second wersion of instructional booklets was identical to the first except that it did not include the isolated summaries.

Preinstruction material. Two types of preinstruction material were developed. The first type described and asked students to follow a three-step study strategy. For each section of the instructional text, the study strategy requested students to 1) underline the ideas of the section which they felt were important, 2) think up at least one example of their own for each main idea they underlined, and 3) summarize concisely in their own words the main ideas they underlined. An example of how a hypothetical student used the study strategy also was provided to clarify the study strategy directions. The second type of preinstruction material consisted of an irrelevant passage of reading material equal in length to the first type of preinstruction material.

Test. A test composed of eighteen five-alternative multiple-choice items was developed. Twelve of the test items were relevant questions based on the information found in the summaries. The remaining six items were incidental questions generated from information not contained in the summaries. Six of the relevant questions were on the application level. In the case of a concept, application level questions required students to apply the concept to unencountered instances in order to classify them as examples or nonexamples of that concept. In the case of a principle, application level questions required students to apply the principle to a set of unencountered antecedant conditions in order to select the correct set of consequent conditions. The other six relevant questions were on the memory level. There were both verbatim and paraphrase types of memory level questions (Anderson, 1972, pp. 149-151). The incidental questions included a mixture of both application and memory. level items. Figure 3 shows a relevant application level question for the second section of the instructional text. Figure 4 shows an incidental memory level question for the same section of text.

Insert Figures 3 and 4 about here

Design and Procedure

A 2x2 posttest only factorial design with an added control group was employed. The two factors were: study strategy at two levels, presence or absence; and isolated summaries at two levels, presence or absence.

Students were randomly assigned to treatments. At the beginning of the experiment, each student was supplied with a packet appropriate to his treatment assignment.

Experimental treatment packets had three parts, the study strategy or irrelevant reading filler, instructional reading material, and the posttest. Control group packets had irrelevant reading filler in the first two parts, but contained the posttest.

Students were asked to record when they began and ended the instructional reading and the posttest.

Results

Table 1 reports the means and standard deviations for each treatment group on each dependent variable.

Insert Table 1 about here

Posttest Scores

Interactions. A two-way MANOVA was conducted with the control group data excluded. The analysis combined the



dependent variables of score on application posttest items, score on memory posttest items, and score on incidental posttest items. The MANOVA revealed a significant isolated summaries X study strategy interaction, \underline{F} (3,87) = 5.065, p < .005. A two-way ANOVA then was run on all but the control group data. A significant interaction between isolated summaries and study strategy occurred for total score of all posttest items, \underline{F} (1,89) = 15.27, \underline{p} = .0002; score of application and memory posttest items, \underline{F} (1,89) = 10.84, p = .0014; score of application posttest items, F(1.89) = 7.82, p = .0063; and score of incidental posttest items, \underline{F} (1,89) = 7.76, \underline{p} = .0065. This interaction almost reached conventional significance for score of memory posttest items, \underline{F} (1,89) = 3.90, \underline{p} = .0515. These interactions all followed the predicted pattern of interaction except the interaction for score of incidental posttest items. deviated from the predicted pattern because the mean of the no isolated summaries and study strategy group was slightly smaller than the mean of the isolated summaries and no study In order to better understand the significant strategy group. interactions, pairwise comparisons of the means were conducted using the Newman-Keuls procedure. For score of application posttest items, it was found that the no isolated summaries and study strategy group, the isolated summaries and no study strategy group, and the isolated summaries and

study strategy group performed better than the no isolated summaries and no study strategy group. For score of all posttest items and score of incidental posttest item;, both the no isolated summaries and study strategy group as well as the isolated summaries and no study strategy group surpassed the no isolated summaries and no study strategy group. For score of application and memory posttest items, the no isolated summaries and study strategy group did better than the no isolated summaries and no study strategy group. All other pairwise comparisons of means were nonsignificant (p > .05).

Main effects. The MANOVA showed no significant main effects for either the isolated summaries, \underline{F} (3,87) = .729, \underline{p} > .05, or the study strategy, \underline{F} (3,87) = 5.065, \underline{p} > .05. However, the ANOVA produced a significant study strategy main effect for scores of application and memory posttest items, \underline{F} (1.89) = 4.145, \underline{p} = .0447. Students directed to follow the study strategy achieved higher scores of application and memory posttest items than students not given the study strategy. No other significant main effects for posttest scores were observed.

Time

<u>Time spent on instruction</u>. Students given material with isolated summaries studied it for about the same length of

time as students given material without isolated summaries, \underline{F} (1,89) = .0007, \underline{p} = .9789. But, students directed to follow the study strategy spent longer studying the instructional text than students not supplied with the study strategy, \underline{F} (1,89) = 7.82, \underline{p} = .0063. There was no isolated summaries X study strategy interaction for time spent on instruction, \underline{F} (1,89) = 1.47, \underline{p} = .2291.

Time spent on posttest. When time spent on the posttest was the dependent variable, the main effect for isolated summaries, \underline{F} (1,89) = 2.305, \underline{p} = .1325, the main effect for study strategies, \underline{F} (1,89) = 3.68, \underline{p} = .0584, and the interaction between isolated summaries and study strategies, \underline{F} (1,89) = .315, \underline{p} = .576, were all nonsignificant.

Analysis of Covariance

Time spent on instruction did not interact with the treatments for score of application and memory posttest items, \underline{F} (2,87) = .105. When time spent on instruction was used as a covariate, the interaction between isolated summaries and study strategy remained significant for score of application and memory posttest items, \underline{F} (1,88) = 10.08, \underline{p} < .003. Also, the main effect in favor of the study strategy for score of application and memory posttest items remained significant, \underline{F} (1,88) = 14.66, \underline{p} < .0001. These results indicate that posttest scores were influenced by how students studied rather than by how long they studied.

Control Group

Instructed vs. control. A one-way ANOVA with planned orthogonal contrasts was conducted on all the data to determine whether the instructed treatment groups differed from the noninstructed control group. As expected, the instructed groups performed better than the control group for score of all posttest items, $\underline{F}(1,110) = 7.24$, $\underline{p} < .0001$; score of application and memory posttest items, $\underline{F}(1,110) = 4.81$, $\underline{p} = .0013$; and score of incidental posttest items, $\underline{F}(1,110) = 4.14$, $\underline{p} = .0037$. However, for score of memory posttest items, there was no significant difference between the instructed groups and the control group, $\underline{F}(1,110) = 1.50$, $\underline{p} = .2062$. The control group spent longer completing the posttest than the instructed groups, $\underline{F}(1,110) = 3.86$, $\underline{p} = .0057$.

Pairwise comparisons. Newman-Keuls pairwise comparisons of means showed that for score of all posttest items, score of application posttest items, and score of incidental posttest items, both the no isolated summaries and study strategy group as well as the isolated summaries and no study strategy group did better than the control group. For application and memory posttest items, the no isolated summaries and study strategy group performed better than the control group. All other pairwise comparisons of means involving the control group were nonsignificant (p > .05).

<u>Discuss</u>ion

The results of this experiment indicate that interspersed isolated summaries interact with a particular study strategy designed to promote student construction of textual meanings. Specifically, it was found that use of the study strategy improves student comprehension and recall of prose material which does not contain isolated summaries, and that inclusion of isolated summaries in prose material facilitates its comprehension by students who follow study strategies of their own making.

There is also some slight evidence suggesting that prose material is better learned when it does not contain isolated summaries and is studied by following the prescribed strategy than when it contains isolated summaries and is studied as students deem best, and that attempting to employ the prescribed study strategy hinders learning of prose material which contains isolated summaries.

These results should not be interpretted to mean that prescribed study strategies are inappropriate to use in studying prose material with isolated summaries. Study strategies probably can be devised which would benefit learning of prose material containing isolated summaries. Likewise, the three-step study strategy employed in this

experiment should not be considered the only possible or best study strategy to use for prose material which does not have isolated summaries. Other study strategies probably could be found which would appreciably aid learning of prose material without isolated summaries.

This and other research exploring interactions between presentation characteristics and study strategies may someday contribute to the development of study strategy training programs which would help student's become independent learners.

Reference Note

1. Wilcox, W. C. Study strategies: A new focus for aptitude-treatment interaction research. Unpublished manuscript, 1978.

References

- Aiken, E. G., Thomas, G. S., & Shennum, W. A. Memory for a lecture: Effects of notes, lecture rate and informational density. <u>Journal of Educational Psychology</u>, 1975, 67, 439-444.
- Allen, D. I. Some effects of advance organizers and level of question on the learning and retention of written social studies material. <u>Journal of Educational Psychology</u>, 1970, 61, 333-339.
- Anderson, R. C. How to construct achievement tests to assess comprehension. Review of Educational Research, 1972, 42, 145-170.
- Ausubel, D. P. The use of advance organizers in the learning and retention of meaningful verbal material. <u>Journal of Educational Psychology</u>, 1960, <u>51</u>, 267-272.
- Ausubel, D. P., & Fitzgerald, D. The role of discriminability in meaningful parallel learning and retention. <u>Journal of Educational Psychology</u>, 1961, 52, 166-174.
- Ausubel, D. P., & Fitzgerald, D. Organizer, general background, and antecedent learning variables in sequential verbal learning. <u>Journal of Educational Psychology</u>, 1962, <u>53</u>, 243-249.

- Ausubel, D. P., & Youssef, M. The role of discriminability in meaningful parallel learning. <u>Journal of Educational Psychology</u>, 1963, <u>54</u>, 331-336.
- Barry, R. J. The concept of mathemagenic behavior: An analysis of its heuristic value. Perceptual and Motor Skills, 1974, 38, 311-321.
- Bauman, D., Glass, G., & Harrington, S. The effects of the position of an organizer on learning meaningful verbal material. U. S. Office of Education Grant No. OEG-8-8-961860-4003. Washington, D.C., 1969.
- Cashen, V. M., & Leicht, K. L. Role of the isolation effect in formal educational setting. <u>Journal of Educational</u>

 <u>Psychology</u>, 1970, 61, 484-486.
- Crawford, C. Some experimental studies of the results of college note-taking. <u>Journal of Educational Research</u>, 1925, 12, 379-386.
- Crouse, J. H., & Idstein, P. Effects of encoding cues on prose learning. <u>Journal of Educational Psychology</u>, 1972, 63, 309-313.
- Dansereau, D. F., Actkinson, T. R., Long, G. L., & McDonald,
 B. Learning strategies: A review and synthesis of
 the current literature. <u>Catalog of Selected Documents</u>
 in Psychology, 1975, 5, 338.

- Davidson, J. P. An investigation of the effects of textual and student generated cues upon mathemagenic reading behavior. <u>Dissertation Abstracts International</u>, 1977, 37, (10-A), 6360-6361.
- DiVesta, F. J., & Gray, G. S. Listening and note-taking.

 <u>Journal of Educational Psychology</u>, 1972, 63, 8-14.
- DiVesta, F. J., & Gray, G. S. Listening and note-taking:

 Immediate and delayed recall as functions of variations in thematic continuity, note-taking, and length of listening-review intervals. Journal of Educational Psychology, 1973, 64, 278-287.
- Doctorow, M., Wittrock, M. C., & Marks, C. Generative processes in reading comprehension. <u>Journal of Educational Psychology</u>, 1978, 70, 109-118.
- Fisher, J. L. & Harris, M. B. Effect of note-taking and review on recall. <u>Journal of Educational Psychology</u>, 1973, 65, 321-325.
- Fitzgerald, D., & Ausubel, D. P. Cognitive versus affective factors in the learning and retention of controversial material. <u>Journal of Educational Psychology</u>, 1963, <u>54</u>, 73-84.
- Fowler, R. L., & Barker, A. S. Effectiveness of highlighting for retention of text material. <u>Journal of Applied</u>

 <u>Psychology</u>, 1974, 59, 358-364.

- Hindmarsh, T. C. <u>Introduction to Mass Communications</u>.

 Provo, Utah: Department of Home Study, Brigham Young
 University, 1975.
- Kuhn, D. J., & Novak, J. D. A study of cognitive subsumption in the life sciences. <u>Science Education</u>, 1971, 55, 309-320.
- McHenry, D. The effect of note-taking activity on listening comprehension in an immediate recall situation. (USAFA Educ. Resch. Rep. 69-2) United States Air Force Academy, 1969. (mimeo)
- Merrill, M. D. Learner control: Beyond aptitude-treatment interactions. <u>AV Communication Review</u>, 1975, <u>23</u>, 217-226.
- Peters, D., & Harris, C. Note-taking and review in recognition learning. In F. DiVesta, D. Peters, N. Saunders, B. Schultz, & P. Weener. Instructional strategies:

 Multivariable studies of psychological processes related to instruction. ARPA Annual Report (Order No. 1269),
 1970, 107-124.
- Proger, B. B., Taylor, R. G., Mann, L., Coulson, J. M., & Bayuk, R. J. Conceptual pre-structuring for detailed verbal passages. <u>Journal of Educational Research</u>, 1970, 64, 28-34.

- Rickards, J. P. Processing effects of advance organizers interspersed in text. Reading Research Quarterly, 1975-76, 11, 599-622.
- Rickards, J. P., & August, G. J. Generative underlining strategies in prose recall. <u>Journal of Educational Psychology</u>, 1975, <u>67</u>, 860-865.
- Rothkopf, E. Z. Some theoretical and experimental approaches to problems in written instruction. In J. D. Krumbolz (ed.), Learning and the Educational Press. Chicago: Rand McNally, 1965.
- Schnell, T. R. The effect of organizers on reading comprehension of community college freshman. <u>Journal of Reading Behavior</u>, 1972-73, <u>5</u>, 169-176.
- Von Restorff, H. Uber die virkung von bereichsbildungen im spurenfeld. <u>Psychologie Forschung</u>, 1933, <u>18</u>, 299-342.
- Wallace, W. P. Review of historical, empirical, and theoretical status of the von Restorff phenomenon. <u>Psychological</u>
 <u>Bulletin</u>, 1965, <u>63</u>, 410-424.

Means and Standard Deviations for Each Treatment
Group on Each Dependent Measure

Dependent Measure		Treatment Group				
		No Isolation and Str tegy n=24	Isolation a No Strategy <u>n</u> =21	Isolation and Strategy n=25	No Isolation and No Strategy n=23	Control n=22
Total Score of All Posttest Items	M	10.42	9.76	8.72	7.43	7.27
	<u>S D</u>	2.12	2.61	2,75	2.39	2.41
Score of Application and Memory Posttest Items	<u>M</u>	6.83	.6.14	5.68	4.87	4.95
	<u>SD</u>	1.46	1.74	1.89	1.96	1.81
Score of Application Posttest Items	M	3.75	3.52	3.28	2.56	2.45
	<u>SD</u>	1,29	1.21	1.27	1.12	1.37
Score of Memory Posttest Items	<u>M</u> -	3.08	2.62	2.40	2.30	2.50
	<u>SD</u>	1.21	1.07	. 1.15	1.40	1.18
Score of Incidental Posttest Items	M	3.58	3.62	3.04	2.56	2.32
	<u>SD</u>	1.35	1.53	1.37	1.27	1.29
Time Spent on Instruction in Minutes	M	12.67	10.67	13, 56	11.52	to the time to
	<u>S D</u>	3.45	3.17	3.19	4.02	· ·
Time Spent an, Posttest in Minutes	<u>M</u>	12.37	14.62	13.00	13.26	15.77
	<u>SD</u>	2.79	3.65 ,	2,06 .	3.87	4.01

ERIC Full Year Provided by ERIC

27

Figure Captions

- Figure 1. Subheading label and isolated summary of each section of the instructional text.
- Figure 2. Second section of the instructional text with its isolated summary.
- Figure 3. Relevant application level question for the second section of the instructional text.
- Figure 4. Incidental memory level question for the second section of the instructional text.

INTRODUCTION

Opinions and decisions are effected by information flowing through a variety of channels.

PUBLIC OPINION, A DEFINITION

Public opinion is an expressed attitude by members of a group. An unexpressed opinion is not public. A public opinion is not necessarily accepted by everyone in the group.

PUBLIC OPINION MEASUREMENT

Public opinion often is measured by survey and political polls. But, "actual" public opinion is usually difficult to determine. Measured public opinion nearly always is manipulated in one way or another.

INFORMAL INFORMATION FLOW

There are two kinds of channels in which information flows. Formal channels consist of the mass media and institutions. Informal channels are made up of primary groups, secondary groups and opinion leaders. The primary group is composed of those persons with whom an individual closely associates. The secondary group is composed of those persons with whom an individual has a face-to-face relationship. An opinion leader is a person who openly expresses his opinions. Information from primary group members is generally more credible to an individual than information from secondary group members. Information from informal channels is generally more credible than information from formal channels.

THE TWO-STEP FLOW OF INFORMATION
The credibility of information from formal channels sometimes is enhanced if it first passes through informal channels. In other words, we may not place high credibility on information received directly from one of the mass media, but the same information may become highly credible if we hear it from some trusted person who received it from the media and relayed it to us.



PUBLIC OPINION, A DEFINITION

The end result of this omnipresent flow of information is the molding of attitudes and opinions in people. When the opinion of a group of us centers on an issue and we arrive at some agreement then we have formed a unit of public opinion. That opinion, if expressed, will have an influence on the people we have chosen to make our decisions. Please notice, I said, "That opinion, if expressed. . . " The prevailing opinion of a "public" can never be known by anyone until it is verbalized or otherwise expressed. We all have opinions and quite often they are similar to those of others, but how often do we actually care enough to boldly come forward and express them? Isn't it usually more comfortable to just sit back and quietly gripe when the decisions don't go our way?

Many small interest groups have learned the secret and power of being vocal. Often in the absence of expressed opinion of the majority, decision makers hear a loud opinion noise and mistakenly interpret it as being from the majority, when in reality, it comes from a well organized, vocal, small interest group who is willing to speak out for their case. You will notice evidence of this technique all around you.

Dr. Dallas Burnett, chairman of the BYU Communications Department, has defined public opinion as "The expression of an attitude on an issue by members of a group or 'public'." He is then careful to point out that this attitude is "not necessarily unanimous, but is usually vocal."

I hope you are beginning to see that this thing we call public opinion which has such an effect on the decisions that are made in our behalf, can be very nebulous and ill defined. I hope you also see that your voice, particularly if it is well modulated and intelligently used, can be as credible and influential as anyone else.'s.

Public opinion is an

*expressed attitude

*by members of a group.

An unexpressed opinion is not public.

A public opinion is not necessarily accepted by everyone in the group.



Which one of the following opinions perhaps is not a public opinion?

- a. Mr. Burns startles his wife by telling her his belief that the United States should initiate a war of world conquest.
- b. In a letter to a motion picture company, Trudy complains about the production of what she thinks is a "pornographic" movie.
- c.* The majority of class members resent their teachers unilateral decision to change the date of an exam.
- d. Three members of a large service club place a signed statement on the club bulletin board which conveys their disagreement with a decision made by the majority of club members.
- e. A newspaper publishes the results of an opinion survey in which the proposed construction of a new ski resort was overwhelmingly favored by those questioned. However, the newspaper purposely neglected to mention that the survey was conducted at the ski resort.

Fill in the blank.

"I hope you are beginning to see that this thing we call public opinion can be

- a. Very potent and influential.
- b. Very well expressed,
- c.* Very nebulous and ill defined.
- d. Hard to measure.
- e. Very diversified and varied.

INTRODUCTION

Opinions and decisions are effected by information flowing through a variety of channels.

PUBLIC OPINION, A DEFINITION

Public opinion is an

*expressed attitude

*by members of a group

An unexpressed opinion is <u>not</u> public. A public opinion is not necessarily accepted by everyone in the group.

PUBLIC OPINION MEASUREMENT

Public opinion often is measured by survey and political pools. But, "actual" public opinion is usually difficult to determine. Measured public opinion nearly always is manipulated in one way or another.

INFORMAL INFORMATION FLOW

There are two kinds of channels in which information flows.

- Formal channels consist of the mass media and institutions.
- 2. Informal channels are made up of primary groups, secondary groups, and opinion leaders.

*The primary group is composed of those persons with whom an individual closely associates.

*The secondary group is composed of those persons with whom an individual has a face-to-face relationship.

*An opinion leader is a person who openly expresses his opinions.



Information from primary group members is generally more credible to an individual than information from secondary group members.

Information from informal channels is generally more credible than information from formal channels.

THE TWO-STEP FLOW OF INFORMATION

The credibility of information from formal channels sometimes is enhanced if it first passes through informal channels. In other words, we may not place high credibility on information received directly from one of the mass media, but the same information may become highly credible if we hear it from some trusted person who received it from the media and relayed it to us. This two-step flow of information may account in part for the influence mass media has on society.

PUBLIC OPINION, A DEFINITION

The end result of this omnipresent flow of information is the molding of attitudes and opinions in people (us). When the opinion of a group of us centers on an issue and we arrive at some agreement then we have formed a unit of public opinion. That opinion, if expressed will have an influence on the people we have chosen to make our decisions. Please notice, I said, "That opinion, if expressed. "The prevailing opinion of a "public" can never be known by anyone until it is verbalized or otherwise expressed. We all have opinions and quite often they are similar to those of others, but how often do we actually care enough to boldly come forward and express them? Isn't it usually more comfortable to just sit back and quietly gripe when the decisions don't go our way?

Many small interest groups have learned the secret and power of being vocal. Often in the absence of expressed opinion of the majority, decision makers hear a loud opinion noise and mistakenly interpret it as being from the majority, when in reality, it comes from a well organized, vocal, small interest group who is willing to speak out for their case. You will notice evidence of this technique all around you.

Dr. Dallas Burnett, chairman of the BYU Communications Department, has defined public opinion as "The expression of an attitude on an issue by members of a group or 'public'" He is then careful to point out that this attitude is "not necessarily unanimous, but is usually vocal."

I hope you are beginning to see that this thing we call public opinion which has such an effect on the decisions that are made in our behalf, can be very nebulous and ill defined. I hope you also see that your voice, particulary if it is well modulated and intelligently used, can be as credible and influential as anyone else's.

Public opinion is an

*expressed attitude

*by members of a group

An unexpressed opinion is <u>not</u> public.
A public opinion is <u>not</u> necessarily accepted by everyone in the group.



Which one of the following opinions perhaps is \underline{not} a public opinion?

- a. Mr. Burns startles his wife by telling her his belief that the United States should initiate a war of world conquest.
- b. In a letter to a motion picture company, Trudy complains about the production of what she thinks is a "pornographic" movie.
- c. The majority of class members resent their teachers unilateral decision to change the date of an exam.
- d. Three members of a large service club place a signed statement on the club bulletin board which conveys their disagreement with a decision made by the majority of club members.
- e. A newspaper publishes the results of an opinion survey in which the proposed construction of a new ski resort was overwhelmingly favored by those questioned. However, the newspaper purposely neglected to mention that the survey was conducted at a ski resort.

Fill in the blank.

"I hope you are beginning to see that this thing we call public opinion can be _____."

- a. Very potent and influential.
- b. Very well expressed.
 - c. Very nebulous and ill defined.
 - d. Hard to measure.
 - e. Very diversified and varied.