DOCUMENT RESUME

ED 189 030 SP 015 950

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TITLE Conceptual Level and Teachers' Written Plans.
PUB DATE Apr 80
NOTE 20p.: Paper presented at the annual meeting of the American Educational Research Association (Boston, MA, April, 1980).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Classroom Techniques; *Decision Making; Elementary Education; Instructional Materials; *Lesson Plans; Media Selection; Preservice Teacher Education; Student Characteristics; *Teacher Characteristics; *Teaching Methods

ABSTRACT

Teachers devise lesson plans based on one of two "conceptual levels" (degree and kind of materials, diagnosis, student background research, and classroom and time management). Higher conceptual level (HCL) teachers emphasize diagnosis and student characteristics in their plans, while lower conceptual level (LCL) teachers give special consideration to materials and classroom techniques. A study of the lesson planning procedures of 68 elementary school teachers provided categorical data on the tasks typically involved in the planning process. The results indicate that there is no significant difference between HCL and LCL plans, although the differences become more significant when the teachers are further subdivided into age, grade levels taught, and length of time used for planning. Implications for teacher training programs are presented. (CJ)

CONCEPTUAL LEVEL AND TEACHERS' WRITTEN PLANS

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Presented at the Annual Meeting of the
American Educational Research Association
Boston
April, 1980

The purpose of this study was to determine if the written plans of 68 elementary classroom teachers varied according to the teacher's conceptual level. In addition, plans were examined for variation between primary (1-3) and intermediate teachers (4-5) and the amount of time for which teachers were planning.

Teacher decision making and planning is an important topic of study. The understanding of decision making in conjunction with understanding what occurs in the classroom will lead to a more complete picture of the teaching/learning process (Morine, 1970; Shavelson, 1976; Mintz, 1979). Research on preactive decision making has shown that teachers typically concentrate on what is to be taught and how it will be taught when planning for classroom instruction. Objectives and evaluation decisions are not typically reflected in written lesson plans (Yinger, 1978; Mintz, 1979).

Certainly not all teachers plan alike. Some minor variations in grade level and teacher characteristics have been identified. For example, primary teachers spend more time planning for reading instruction than do intermediate teachers. Also, teachers whose lesson plans reflect attention to student needs tend to be older than those teachers whose lesson plans do not reflect attention to student needs (Mintz, 1979). Other teacher characteristics may influence the way in which teachers plan for instruction.

Conceptual level is a personality dimension consisting of discriminating skills and interpersonal maturity. Both of these characteristics bear on the act of planning for instruction. A higher conceptual level (HCL) person is more likely to adapt to complex environments by gen-

erating new concepts, relying on internal standards, and handling different frames of references. HCL teachers have been shown to be more concerned with the orientation of the learner while LCL (lower conceptual level) teachers were concerned with organization (Hunt, 1971; Harootunian & Yarger, 1978).

Harootunian and Yarger (1978) found that there were significant differences in HCL and LCL teachers in terms of their instructional decision making. In establishing reading groups, HCL teachers used more sources of information, relied more on student skills, informal assessment, and the needs of students than did LCL teachers. These differences were expected to be reflected in the written plans of teachers. Specifically, it was thought that HCL teachers would attend to student needs through diagnosis, grouping, and information requests concerning student characteristics, while LCL teachers would be more concerned with organizational items such as scheduling and materials preparation.

METHOD

A volunteer group of 68 teachers from grades 1-5 provided the data for this study. Teachers were assigned to one of three planning simulations in which they were asked to plan reading instruction for ten unfamiliar children as though it were the beginning of a new school year. Teachers were told to assume that they were working in their own school and would be using the same materials that were currently available in their classrooms. The simulations varied in the amount of time for which teachers were asked to plan: the entire school year, several weeks, or a single reading period. The time periods varied in order to obtain the largest amount of information about what teachers were thinking

while planning for instruction.

Teachers had to request information from a controlled data bank in order to find out about the students for whom they were planning. The data bank consisted of complete sets of records, at each grade level, for the ten children who comprised the representative group for whom the teachers were planning. The records included data on health and attendance, family background, teachers' comments, parent conferences, report cards, psychological consultations, test results, sociometric data, previous reading programs, and information on special interests. Teachers filled in survey forms upon completion of the simulations. These were designed to gather both demographic data and information about the teachers' typical planning procedures. A paragraph completion test was also administered to determine each teacher's Conceptual Level.

DATA ANALYSIS

The paragraph completion tests were scored at the Ontario Institute for Studies in Education. Paragraph completion scores can range from 0-3. Conceptual Level is a relative determination on a continuous scale. A median split was used to identify two groups. The mean score for the total teacher sample was 1.77 with a standard deviation of 0.4 and a range from 1.0 to 2.7. The higher conceptual level group had a mean of 2.07, a standard deviation of 0.24 and a range of 1.8-2.7. Thirty-six teachers were classified as being in the HCL group. The lower conceptual level group, consisting of 32 teachers, had a mean of 1.44, a standard deviation of 0.17 and a range of 1.0 to 1.7.

Planning procedure categories were determined by the survey data. The procedures that teachers listed as part of their typical planning

were categorized and grouped with conceptually similar items. Categories provided the basis for the coding of written lesson plans obtained from the simulation tasks. The same coding conventions were used for all lesson plans, regardless of the time period for which teachers were planning.

Two coders, including one of the investigators, worked on the coding of the 68 lesson plans. Each coder coded all of the plans. Results were checked for the critical percentage of agreement in all categories. The median percentage of agreement was 91 with a mean of 92.78 (Table 2). After the percentages were computed, coders went over discrepant decisions and reached consensus so that further tabulation could proceed.

All data bank information requests were organized and grouped into conceptually related categories. They were grouped as such: reading level, special services, test results, grades and teacher comments, personal characteristics, family background, and health and attendance information.

Some of the teachers consulted various materials as they were planning for reading instruction. The materials were grouped into six related categories. These categories were: basal texts, screening tests, teacher's personal materials (including plan books), teacher training materials, reading kits, and media items.

Given the categorical nature of the data, all of the lesson plan codings, information requests, and materials to which teachers referred were examined for significance using Chi-Square tests. Tests were performed on the basis of relative conceptual level, conceptual level

and grade level, conceptual level and simulation, grade level, and simulation task. Each broad category was tested separately as the coding categories were not independent.

RESULTS

Lesson Plans

HCL/LCL No significant differences were found in any of the nine lesson plan coding categories between higher and lower conceptual level teachers (Table 3). When examining the two groups in a 2x2 contingency table by grade level, significant differences were found in method decisions ($p < .10$); materials preparation ($p < .05$); and evaluation decisions ($p < .05$). HCL primary teachers tended to include method decisions in their plans more frequently than LCL primary teachers while LCL intermediate teachers tended to include method decisions in their plans more frequently than HCL intermediate teachers. This grade level difference pattern is also demonstrated in the use of materials preparation and evaluation decisions. HCL primary teachers mentioned materials preparation and evaluation decisions more frequently than LCL primary teachers while LCL intermediate teachers mentioned materials preparation and evaluation decisions more frequently than did HCL intermediate teachers.

There was one significant difference when HCL/LCL was examined with the additional variable of simulation task (Table 3). HCL teachers mentioned lesson scope more frequently when planning for an entire year's program and a single reading lesson than did LCL teachers while LCL teachers used lesson scope more frequently when planning reading for a several week period ($p < .10$).

Grade Level/Simulation Two significant differences were found when lesson plan coding categories were associated with grade level. Intermediate teachers' lesson plans showed more concern with scheduling ($p < .10$) and subject coordination ($p < .01$) than did the plans of primary teachers. Scheduling was also a significant factor when associated with the amount of time for which teachers were planning ($p < .05$). Teachers planning for several weeks used scheduling more frequently than teachers planning for other time periods (Table 4).

Information Requests

HCL/LCL Seventy-six percent of the sample requested data bank information; 81% of the HCL teachers and 72% of the LCL teachers. There was one significant difference in the information requested from the data bank by HCL and LCL teachers (Table 5). Significantly more HCL teachers requested family background data than did LCL teachers ($p < .05$). One significant difference was found when information requests were associated with conceptual level and simulation task ($p < .05$). HCL teachers tended to request more information concerning pupil characteristics in long and short term planning while LCL teachers tended to request personal characteristic data when planning for several weeks (Table 5).

Grade Level/Simulation One significant difference was found when information requests were associated by grade level. Significantly more intermediate teachers requested test result information than did primary teachers ($p < .01$). The amount of time for which teachers were planning resulted in one significant difference ($p < .05$). Teachers in Simulations One and Three requested family background information more

than did teachers planning reading instruction for a several week period (Table 6).

Materials Requests

Sixty-three percent (43 teachers) referred to materials while completing the planning simulations. One significant difference was found. Significantly more HCL teachers consulted reading kits in their planning than did LCL teachers ($p < .05$) (Table 7). There were no significant differences when HCL/LCL was examined by grade level or time for which teachers were planning (Table 8).

Survey Data

Planning Style Survey data indicate that the majority (57%) of the teachers generally plan alone. Thirteen percent of the sample said they plan some activities alone and other activities with another teacher. Fifteen percent occasionally share ideas and 15% usually plan with someone else. There were no significant differences when this data was compared by conceptual level.

Time Spent on Planning HCL teachers spent anywhere from 1 to 20 hours per week planning for instruction. The mean amount of time for planning was 6.3 hours with a standard deviation of 4.27. HCL teachers spent from 12.5% to 75% of this time planning for reading. The mean percentage was 52.34 with a standard deviation of 16.14. The range of time spent on planning was the same for LCL teachers. The mean time was 7.2 hours with a standard deviation of 4.73. LCL teachers spent from 17-90% of this time planning for reading. The mean percentage was 42.41 with a standard deviation of 17.28.

DISCUSSION

HCL and LCL teachers appear to plan reading instruction in similar ways. No significant differences were found in terms of conceptual level alone. However, grade level and length of time for which teachers were planning appear to be important mediating variables. It is possible that planning is such a procedural activity that teacher characteristics are not powerful enough to overcome the process. Grade level, the time frame for which teachers are planning, and other situational factors will need to be considered in any description of teacher decision making.

An interesting sidelight of the study was the usefulness of the planning procedure categories which were obtained from the teachers' planning descriptions. Considering all of the teachers in the study, 79.4% used diagnosis in their plans; 73.5% used grouping; 52.9% used subject coordination; 83.8% used basals; 60.2% used lesson scope; 50% used scheduling; 67.6% used method decisions; 64.7% used materials preparation; and 41.2% used evaluation decisions. As expected, teachers concentrated on what was to be taught and how it was to be taught. There was little mention of objectives. Evaluation was uitlized as a tool for deciding the pace and content of future lessons.

An understanding of teacher decision making will need to consider both teacher characteristics and situational variables. Although a teacher's conceptual level made some difference in the type of information and materials used to formulate decisions (for example, HCL teachers used family background information and reading kits more frequently than did LCL teachers), other factors need to be taken into consideration.

Teacher Training Implications

For many years teacher training programs have relied on the educational planning model (objectives, materials, activities, and evaluation). Teachers do not appear to use this model when planning. Instead, they concentrate on activities and organization. In addition, this model does not take into consideration situational variables such as grade level, type of students involved, and the amount of time for which teachers are planning. It is important that preservice students be exposed to a planning model that is both functional and flexible. A program which identifies relevant variables and allows students to practice planning in a variety of situations and time frames would appear to meet this need.

Table 1

Lesson Plan Coding Categories

Diagnosis Plans specifically mention the use of diagnostic tests and/or take into account the children's reading level.

Grouping Plans list the formation of various groups for reading instruction.

Subject Coordination Plans cite the coordination of phonics, reading, spelling, and other related subject areas.

Basal Manual Plans indicate the use of a basal teacher's manual.

Lesson Scope Plans indicate the content to be covered in the lesson.

Scheduling Plans indicate the scheduling of time for lessons during the day and/or specifically mention the amount of content to be covered during a specific time period.

Method Decisions Plans indicate a decision regarding the appropriate teaching method to be used during the lesson.

Materials Preparation Plans indicate the need for the preparation of materials prior to the lesson being planned.

Evaluation Decisions Plans indicate the use of evaluation techniques in order to determine the lesson's effectiveness.

Table 2

Critical Percentages of Agreement

Category	Percentage
Diagnosis	98.5
Grouping	100
Subject Coordination	98.5
Basal	92.6
Lesson Scope	91.2
Scheduling	98.5
Method Decisions	94.1
Materials Preparation	89.7
Evaluation Decisions	89.7

Table 3

Chi-Square Comparisons of Lesson Plan Coding Categories by Conceptual Level, Conceptual Level and Grade Level, and Conceptual Level and Simulation Task

Category	HCL/LCL[a]	HCL/LCL and Grade Level[a]	HCL/LCL and Simulation Task[b]
Diagnosis	.71	.99	2.17
Grouping	.33	.39	.42
Subject Coordination	2.12	.54	2.62
Basal	.27	0	1.03
Lesson Scope	.42	.48	4.75*
Scheduling	.94	.38	2.47
Method Decisions	.09	2.88*	1.45
Materials Preparation	1.88	3.90**	4.03
Evaluation Decisions		5.06**	2.56

[a]df for all Chi-Square comparisons = 1

[b]df for all Chi-Square comparisons = 2

Note: NS $p > .10$

* $p < .10$

** $p < .05$

Table 4

Chi-Square Comparisons of
Lesson Plan Coding Categories by
Grade Level and Simulation Task

Category	Grade Level[a]	Simulation[b]
Diagnosis	.96	.37
Grouping	1.56	4.11
Subject Coordination	7.12***	3.90
Basal	1.75	.35
Lesson Scope	.12	.74
Scheduling	2.89*	6.52**
Method Decisions	2.44	.69
Materials Preparation	.31	.55
Evaluation	.4	.60

[a]df for all Chi-Square comparisons = 1

[b]df for all Chi-Square comparisons = 2

Note: NS $p > .10$

* $p < .10$

** $p < .05$

*** $p < .01$

Table 5

Chi-Square Comparisons of Information Requests by Conceptual Level, Conceptual Level and Grade Level, and Conceptual Level and Simulation Task

Category	HCL/LCL[a]	HCL/LCL and Grade Level[a]	HCL/LCL and Simulation Task[b]
Reading Level	.18	0	1.7
Special Services	1.3	.1	.29
Test Results	0	.1	.04
Grades/Comments	0	.27	.97
Personal Characteristics	.7	.06	6.62*
Family Background	4.91*	0	.045
Health/Attendance	.09	.02	2.05

[a]df for all Chi-Square comparisons = 1

[b]df for all Chi-Square comparisons = 2.

Note: NS $p > .10$

* $p < .05$

Table 6

Chi-Square Comparisons of Information Requests by by Grade Level and Simulation

Category	Grade Level[a]	Simulation[b]
Reading Level	.79	.1
Special Services	.02	.06
Test Results	9.39**	.86
Grades/Comments	.27	.69
Personal Characteristics	.11	.33
Family Background	.11	6.45*
Health/Attendance	.18	.55

[a]df for all Chi-Square comparisons = 1

[b]df for all Chi-Square comparisons = 2

Note: NS $p > .10$

* $p < .05$

** $p < .01$.

Table 7

Chi-Square Comparisons of Materials Consulted During Planning by Conceptual Level, Conceptual Level and Grade Level, and Conceptual Level and Simulation Task

Category	HCL/LCL[a]	HCL/LCL and Grade Level[a]	HCL/LCL and Simulation Task[b]
Basals	.06	.12	1.80
Screening Tests	.06	1.12	.39
Personal Materials	.03	0	2.50
Teacher Training Materials	.40	.77	3.75
Reading Kits	5.21*	.06	.75
Media	.02	1.66	4.06

[a]df for all Chi-Square comparisons = 1

[b]df for all Chi-Square comparisons = 2

Note: NS $p > .10$

* $p < .05$

Table 8

Chi-Square Comparisons of Materials Consulted by Grade Level and Simulation

Category	Grade Level[a]	Simulation[b]
Basals	.62	.09
Screening Tests	.99	1.18
Personal Materials	.39	1.54
Teacher Training Materials	1.75	.59
Reading Kits	.93	0
Media	0	.07

[a]df for all Chi-Square comparisons = 1

[b]df for all Chi-Square comparisons = 2

Reference Notes

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