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ABSTRACT

To determine the effects of administrator expectation, school social class, and teacher experience on the quality of curricula developed by teachers at the local level in small planning groups, two levels of administrative expectation and two levels of school social class were simulated in a 2 x 2 design. Twenty-seven groups of three secondary school teachers were randomly assigned to one of the four treatments. In a one and one-half hour session, each group was exposed to the simulation and completed an assigned task, which consisted of preparing a general social studies unit. Results indicated that group scores on the Rating Scale for Curriculum Evaluation were significantly higher ($p < .01$) for the high expectation treatment than for the low. Differences were found for social class and experience, but they were not significant. It was also noted that groups exposed to the high expectation, upper social class treatment significantly favored an intellectually-oriented curriculum over a vocationally oriented one. (RT)

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THE EFFECTS OF EXPECTATION, SOCIAL CLASS, AND EXPERIENCE ON GROUP PRODUCTIVITY

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Purpose of the Study

This study examined the proposition that administrative behavior, social class, and experience influence the quality of curricula developed by teachers at the local level, in small planning groups. Many studies (Kline¹, Talmage², Larson³, Nerbovig⁴, Downey⁵, Hills⁶, and Langenbach⁷) have reported data on one or more variables related to the behavior of teachers and administrators engaged in educational planning. But for the most part, only a cultural, or a role, or a personal variable had been studied and served as the basis for subsequent generalizations. Never had these three variables been studied together, at least in terms of a sound theoretical framework. Thus, the present study attempted a more comprehensive and theoretically-based study of curriculum development. The study was comprehensive to the extent that it accounted for a cultural variable--school social class level, a role variable--administrative expectation, and a personal variable--years of teacher experience in curriculum planning. Theoretically, this study was based upon a refinement of Beauchamp's General Curriculum Systems Model.⁸ This refinement incorporated the comprehensive categories of Getzel's Social

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Systems Theory: culture, role and personal variable.⁹ Figure 1 depicts the model for the development of curriculum by groups at the local level that served as the theoretical basis of this study.

Procedure

To determine whether administrative expectations could have a significant effect on an assigned curriculum task, the effects of two treatments of administrative expectation on the outputs of a group curriculum task were observed. The two treatments were designated as high and low administrative expectation. The first major hypothesis suggested that high expectation would elicit higher output than low expectation. The actual writing of a curriculum unit by each group constituted the G.C.T., or Group Curriculum Task, which was rated in terms of a quantified index, the Rating Scale for Curriculum Evaluation (RSCE) and yielded a total output, the G.C.T. Score.

A secondary consideration of this study related to the social class level of the school and the community it served. The second major hypothesis suggested that teachers in upper class schools would produce higher G.C.T. Scores than teachers in lower class schools. Upper was designated to mean upper-middle and upper class, while lower was designated to mean lower and lower-middle class. An upper and a lower class school were simulated to ascertain whether social class might significantly affect G.C.T. Scores under the two treatments of administrative expectation. Furthermore, a corollary hypothesis suggested that teachers in upper class schools would produce a primarily intellectually-oriented curriculum, whereas teachers in lower class schools would produce a primarily vocationally-oriented curriculum.

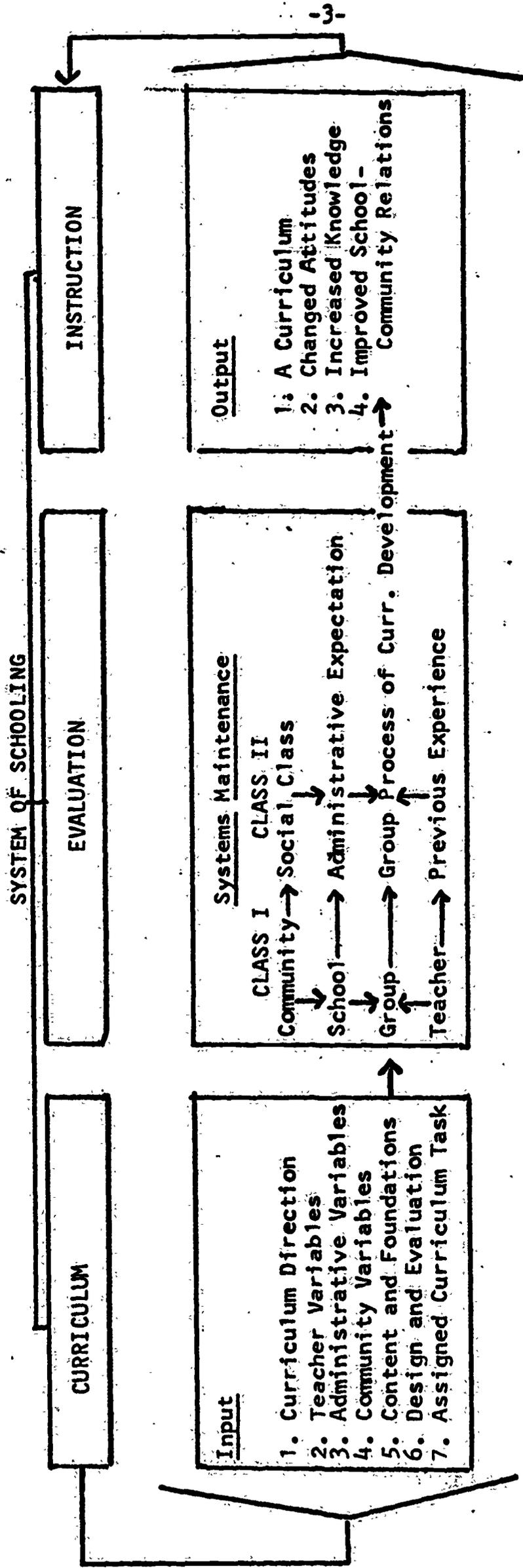


Figure 1: A Model for the Development of Curricula at the Local Level.

Thus, the null hypotheses for this study were:

- H₁ No difference exists for G.C.T. Scores among the curriculum groups on the basis of administrative expectation.
- H₂ No difference exists for G.C.T. Scores among the curriculum groups on the basis of social class level.
- H₃ No difference exists between the intellectual-cognitive oriented items and the vocational-psychomotor oriented items of the G.C.T. Scores for curriculum groups exposed to the high Expectation, upper school social class treatment.

The selection of variables yielded a 2 x 2 covariate design, with two levels of administrative expectation and two levels of social class.

Simulation Materials. One set of simulation materials was produced for each of the four treatments. These materials were similar in format to those included in the In-Basket Test devised by Hemphill, Griffiths, and Frederiksen.¹⁰ The simulated materials included film strips, newspaper clippings, minutes from faculty meetings, and pertinent demographic data. In addition, audiotaped instructions served to standardize the treatment conditions in terms of timing, voice, and emphasis. These directions, along with the other simulation materials conveyed the net impression that curriculum development was of primary concern, or of little concern, to the administrator of the particular school, in terms of the upper or lower class setting of the administrator's school.

Administrative Expectation Level. Eleven guidelines for formulating high and low levels of administrative expectation were suggested in the literature,¹¹ and were used in formulating the behavior of the two simulated types of administrative expectations for curriculum, in terms of verbal and written directions.

Social Class Level. The simulation of a lower and an upper class

school was constructed on the basis of categories suggested by Larson's "stress score"¹² which was derived from Hollingshead and Redlich.

Source of the Data. Data for this study was obtained from two sources: 1. from each participants Personal Inventory Form which indicated these eight variables: age, sex, education level, teaching experience, curriculum experience, subject teaching experience, grade level experience, administrative experience; 2. from solutions to the G.C.T. as recorded on the Curriculum Guide Form and quantified by the RSCE, both of which were developed by Talmage.¹³

Reliability for the RSCE was determined by Hoyt's estimate of test reliability based on the analysis of variance.¹⁴ As summarized in Table I a coefficient of .939 was obtained for the data in this study. Rater reliability among the three raters who evaluated the data was .884 ($p < .01$).

Sample. Eighty-one volunteer and non-volunteer teachers were randomly assigned to groups of three. Nineteen of the participants were members of minority groups, of which sixteen were Blacks. Chi-square tests to determine equalization of distribution of the eight characteristics on the Participant Inventory Form indicated no significant difference at the .05 level of significance. An F-test at .01 level showed no significant differences between scores obtained by volunteer and non-volunteers.

These twenty-seven groups were then randomly assigned to the four treatments. In a one and one-half hour session, each group was exposed to the simulation and completed an assigned task, which consisted of an upper grades, general social studies unit.

Other Preliminary Analysis of Data. The two assumptions underlying the use of the analysis of variance are normality of distribution and homogeneity

of variance. Results from Probits Analysis justified the assumption that data of this study represented an unbiased sample from a normal population. Results from Hartley's F_{\max} justified the assumption of homogeneity of cell variance.

Table I

Summary Table of Analysis of Variance for Estimating the Reliability and Standard Error of Measurement of the Rating Scale for Curriculum Evaluation

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Among Individ.	446.08	80	5.57	16.24**
Among Items	16.21	11	1.47	4.29**
Residual	302.04	880	.34	
Total	764.33	972	.78	

$$\text{Reliability } r_{tt} = \frac{5.57 - .34}{5.57} = .939$$

** p. < .01

$$\text{Standard Error of Measurement } SE_{\text{meas.}} = 12(.343) = 4.11$$

Results of the Study

The main variables of this study were level of expectation and level of social class, while the suggested covariate was number of years of experience in curriculum planning for each individual. In order to justify the use of a covariate design it had to be established that a sizeable correlation existed between the covariate and the dependent variable. Since this correlation was quite low, it was decided to employ the 2 x 2 analysis of

variance design, using the least squares method for unequal cell frequencies.¹⁵

The findings as summarized in Table II and III are:

First, it was found that groups exposed to the high level of administrative expectation rated significantly ($p < .01$) higher in terms of G.C.T. Scores than groups exposed to the low level of administrative expectation. Therefore, the first null-hypothesis was rejected.

Second, it was found that groups exposed to the upper level of the school social class treatment did not rate significantly higher ($p < .01$) than groups exposed to the lower level of school social class. Therefore, the second null-hypothesis was not rejected.

Third, it was found that groups exposed to the high expectation, upper social class treatments significantly favored an intellectually-oriented curriculum over a vocationally-oriented one. Therefore, the third null-hypothesis was rejected.

Table II

Source Table for the Analysis of Variance (Least Squares Method)

SOURCE OF VARIATION	SUM OF SQUARES (adjusted)	DF	MEAN SQUARE	F
Between Groups	1705.1	3	568.4	12.18***
School	.5	1	.5	1.
Expectation	1704.6	1	1704.6	37.04***
Interaction	5.9	1	5.9	1.
Within Groups	3596.9	77	46.7	
Total	5307.9	80		

*** (.01) F (1,77) = 6.98

(.001) F (1,77) = 11.97

ITEM COMPARISON OF INTELLECTUAL AND VOCATIONAL CATEGORIES

Table III

School and Expectation	Between Groups	Within Groups	F
upper --- high	6.20	.640	9.70 **
upper --- low	.90	.437	2.05
lower --- high	.66	.507	1.32
lower --- low	.41	.361	1.00

** p. <.01

Discussion

Data of the study lends support to the use of a curriculum systems model as a directive for research, because statistical analysis indicated an association between the hypothesized variables involved in curriculum planning and the output of curriculum materials produced. As such, the theoretical significance of this study was its validation of a systems model that accounted for one personal, group, and cultural dimensions that are purportedly contingencies of group curriculum planning at the local level. Within the proposed social-curriculum systems model, further investigation could conceptualize and control for other variables suggested in terms of the personal, group, institutional, and cultural dimensional categories, thus promoting the kind of feedback necessary to further develop curriculum theory and practice. The practical significance of this study was its demonstration that the building level administrator, the principal, is the real gatekeeper and quality control for educational change, irregardless of teacher experience and social class factors. Finally, the application of the non-computer simulation technique developed for the present study suggested that such techniques offer the possibility not only of increasing the scope of theory, but also modifying pre- and in-service education by the use of such techniques for training and evaluation.

References

1. Kline, C.E., "Leader Behavior, Curriculum Implementation and Curriculum Change", Research in Education: Ed 027-596.
2. Talmage, H., "An Experiment in Curriculum Engineering", Unpublished Doctoral Dissertation, Northwestern University, Evanston, Illinois, 1967.
3. Larson, R.G., "The Implementation of an Urban School Curriculum by Inner-city and Outer-city Primary Teachers", Unpublished Doctoral Dissertation, Northwestern University, Evanston, Illinois, 1968.
4. Nerbovig, M., "Teachers' Perceptions of the Function of Objectives", Unpublished Doctoral Dissertation, University of Wisconsin, Madison, Wisconsin, 1956.
5. Downey, L., "The Relationship of Teaching Patterns to Organizational Climate and Teacher's Belief Systems", Unpublished Doctoral Dissertation, University of Arizona, Tucson, Arizona, 1966.
6. Hills, R.J., "Social Class and Educational Views", Administrator's Notebook, X, 2, 1961.
7. Langenbach, M., "Development of an Instrument to Measure Teachers' Attitudes Toward Curriculum Use and Planning", Unpublished Doctoral Dissertation, Northwestern University, Evanston, Illinois, 1969.
8. Beauchamp, G.A., Curriculum Theory, Second Edition, Wilmette: Kagg Press, 1968, p. 113.
9. Getzels, J. et al, Educational Administration as a Social Process, New York: Harper and Row, 1968, p. 56.
10. Hemphill, J. et al, Administrative Performance and Personality, New York: Columbia University Press, 1962.
11. Sperry, L., "An Experimental Study of the Outputs of Curriculum Groups Under Varying Levels of Simulated Expectation and Social Class", Unpublished Doctoral Dissertation, Northwestern University, Evanston, Illinois, 1970.
12. Larson, ibid., pp. 33-43.
13. Talmage, ibid., pp. 53-56.
14. Hoyt, C. and C. Stunkard, "Estimating of Test Reliability for Unrestricted Item Scoring Methods", Educational and Psychological Measurement, XII, 1952, pp. 756-758.
15. Winer, B.J., Statistical Principles in Experimental Design, New York: McGraw Hill, 1962, pp. 224-225.