A major factor in the failure to successfully implement an innovation such as team teaching, is the absence of a mechanism to identify and treat difficulties arising from the effort to implement the innovation. The hypothesis was tested that teachers who are ambivalent toward team teaching and teachers who experience frustration in attempting to implement team teaching would report more negative attitudes toward this innovation. It was anticipated that these factors would interact. It was also anticipated that a) high ambivalence combined with high frustration would result in the most negative attitudes toward the innovation, and b) the combination of low ambivalence and low frustration would result in the most positive attitudes. The study's hypothesized relationship between the nature of the problem teachers experience and attitudes toward team teaching was only partially confirmed. The most reliable predictor of teacher frustration was an overall measure of problem incidence and severity. (Tables illustrating teacher ambivalence levels toward team teaching and a list of references are included.) (Author/JS)
INFLUENCES ON WORK PREFERENCES OF TEAM TEACHERS IN SELECTED INDIVIDUALLY GUIDED EDUCATION (IGE) SCHOOLS

John T. Seyfarth
Assistant Professor
Virginia Commonwealth University

Robert Lynn Canady
Assistant Professor
University of Virginia

William S. Myers
Doctoral Student
University of Virginia

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INTRODUCTION

Numerous descriptions of unsuccessful attempts to implement educational innovations in schools (Wacaster, 1973; Gross, 1971) are apparent in research literature. Such failures have been attributed to the lack of training in new behaviors required by the innovation or to training which is irrelevant to the concerns of teachers (Sarason, 1971). The absence of a mechanism to identify and treat difficulties arising from the effort to implement an innovation has been cited as a cause of teacher frustration which leads to loss of enthusiasm for the innovation and abandonment of the attempt to implement it (Gross, 1971).

The principal's lack of freedom has been suggested as a factor contributing to a leadership deficit which inhibits innovation (McNeil, 1967). However, Sarason (1971) indicated that this notion originates in the belief that the system is the primary determinant of principals' behavior and ignores existing diversity in role performance among principals. He stated the following:

...an important factor shaping the principal's view of his role and the system is, in part at least, determined by the degree to which he feels he rather than external factors will govern his course of action (Sarason, 1971, p. 145).

This description corresponds to the internal type in the locus of control construct (Rotter, 1966). "Internals" are individuals who believe that reinforcements are contingent upon their own behavior, capacities, or attributes; whereas, "externals" believe that reinforcements are controlled by "powerful others" or by impersonal forces such as luck or chance.
Giacquinta (1973) noted that the extent and speed of organizational change is contingent upon a number of factors including the nature of innovations themselves and the characteristics of the individuals involved in implementing them. An innovation which reinforces existing teacher norms, or which at least does not run counter to them, should be implemented more readily than one which requires that existing norms be modified. Similarly, innovations which result in a net increase in occupational satisfactions for teachers should be implemented more easily.

The focus of this study was team teaching, a method of organizing a school for instruction that involves extensive alterations in the teaching role. Several teachers jointly plan and present instruction for a group of pupils, and no teacher has sole responsibility for any pupil. Team teaching was originally intended to enhance the status and influence of superior teachers, thereby leading to improved instruction in the schools. It was hoped that providing additional career lines would persuade more effective teachers to remain in teaching. As originally designed, team teaching incorporated differentiated teaching ranks similar to the professorial ranks in universities (Anderson, 1964). Although these ranks usually have not been retained in practice, it has been common to designate a member of the team as leader. In addition to the prestige accorded the position of team leader, some systems pay a salary differential or provide other perquisites to the holder.

Elementary school teachers traditionally have taught in isolation from other adults, and although this isolation is viewed by many as a hindrance to personal growth and effectiveness (Meyer, 1971), it does offer compensating advantages for the teacher. Lortie (1964) argued that physical separation of
teachers buttresses a social system which places high value on the teacher's right to freedom from interference in the performance of teaching duties and on the consideration and treatment of all teachers as equals.

By abolishing self-contained classrooms and introducing the position of team leader, team teaching threatens these normative values, with the result that teachers moving from a self-contained into a team teaching situation are likely to experience ambivalent feelings about it. They are attracted by the chance to take part in a new type of program and by the opportunity it affords for more contact with colleagues, but at the same time they are reluctant to surrender the freedom of action of the self-contained classroom. These feelings of ambivalence may vary in intensity in relation to teachers' personal feelings about their work and the gratifications they receive from it, as well as in relation to their degree of adherence to socially-induced beliefs about teacher autonomy and control.

In the present study the hypothesis was tested that teachers who are ambivalent toward team teaching and teachers who experience frustration in attempting to implement it would report more negative attitudes toward the innovation. Further, it was anticipated that these factors would interact. High ambivalence combined with high frustration was hypothesized to lead to the most negative attitudes toward the innovation, and the combination of low ambivalence and low frustration was hypothesized to result in the most positive attitudes.

To the extent that teachers perceive the team leader as an administrator, they are likely to view his presence as a threat to the norms of teacher equality and freedom from supervision and hence to react more negatively to the organ-
izational structure which the leader represents. Conversely, if the leader is perceived as a teaching colleague, more positive teacher attitudes toward team teaching might be expected.

Persons who advance to the position of team leader generally are by definition ambitious, and their role performance probably reflects to some extent the degree and nature of the ambition. Meyer's (1971) description of professional and vertical ambition is relevant. Professionally ambitious persons as described by Meyer are those who express a desire to share what they have learned about teaching with others and who are willing to evaluate other teachers. Vertically ambitious individuals, on the other hand, express a desire for recognition and seek opportunities for advancement. The description of the professionally ambitious person corresponds to the intuitive notion of an effective team leader. Such a person would be expected to possess the willingness and ability to help teachers with the problems they encounter in implementing an innovation. Because professionally ambitious leaders would be more interested in helping, teachers might feel less threatened by their presence. Accordingly, it was hypothesized that teachers on teaching teams led by leaders with high professional ambition would report lower frustration levels and more positive attitudes toward team teaching than would teachers on teams led by leaders who are less professionally ambitious.

In an earlier study (Seyfarth, 1973), it was found that teachers experienced many more problems in the first year of implementing team teaching than they had anticipated. Since experienced team leaders have
had more exposure to the problems which teachers encounter in team teaching programs as well as more practice in solving them, it was hypothesized that teachers on teams led by experienced leaders would report lower levels of frustration and more positive attitudes toward team teaching.

**Research Design**

Teachers and team leaders participating in this study were assigned to teaching teams in Individually Guided Education (IGE) schools. IGE schools were chosen for study because the practices in these schools are relatively standardized and meet the criteria for team teaching. School systems which adopt the IGE program commit themselves to certain practices and organizational features (Klausmeier, 1971). Seven schools were contacted and agreed to participate in the study. Except for one school in a metropolitan area, all were located in small urban areas.

Data were collected from twenty-six teams, but two teams were later eliminated for failing to meet the criteria established by the researchers for inclusion in the study. These criteria were as follows: a designated team leader, shared responsibility for instructing an assigned group of children, and regular planning meetings. Therefore, the findings to be reported in the following section were based on data from seventy-six teachers and twenty-four team leaders. The number of teachers per team on whom data were available varied from one to six.

Data were gathered from self-reports of the teachers and team leaders and were collected during the 1973-74 school year. The Survey of Teaching
Practices instrument (STP) for teachers and a companion version for team leaders, entitled Team Leaders' Survey Form, each consisted of forty-four items.

The following subscores were derived from responses on the STP:

(1) Ambivalence was operationally measured by the following two items. Response choices appear in parentheses.

In general, are you able to accomplish more when you work alone or when you work with others? (Alone, no difference, others)

Do you do a better job when you are working where others can observe what you do, or do you do better when other persons are not around to observe your work? (Not observed, no difference, observed)

Responses were scored 1-3 in the order shown, and an ambivalence score was computed by summing the responses. The possible score ranged from 2 (high ambivalence) to 6 (low ambivalence).

(2) Frustration scores were derived from teachers' ratings of twelve items on a three-point scale (not a problem, slight problem, severe problem) and scored 1-3, respectively. The items had been identified by teachers in a team teaching program as problems they had encountered in implementing the program (Seyfarth, 1973). A total frustration score and four category subscores were computed.

The categories and component items were:

Mechanics of Team Teaching
1. Scheduling students
2. Teaching large groups
3. Planning instruction
4. Helping students adjust to the program
Interpersonal Relations
1. Maintaining harmony on the faculty
2. Working with the administration
3. Working with parents
4. Maintaining student control and discipline

Obtaining Resources and Services
1. Obtaining teaching materials
2. Getting help of teacher aides
3. Finding space for activities

Teacher Autonomy
1. Having too little freedom to teach the way I like

(3) The criterion measure of teachers' attitudes toward team teaching was the Preference for Team Teaching (PTT) scale. Teachers were asked to specify a preferred teaching situation from six possible choices ranging from "no shared activity; each teacher plans for and does his own teaching" (low PTT) to "merged classes with shared responsibility for planning and teaching under a team leader" (high PTT). Scale values from 1 (low) to 6 (high) were assigned to these choices.

Team teaching differs from traditional approaches to instruction in several respects - for example, teachers work with a greater number of students. However, joint planning and teaching are key concepts in team teaching; hence, it seemed appropriate to use these dimensions to measure teachers' attitudes toward the innovation. The responses at the low end of the PTT scale describe self-contained classrooms or variations thereof, and teachers who chose those responses were classified as more negative in their attitudes toward team teaching. Conversely, teachers who chose alternatives from the high end of the scale were classified as more positive toward the innovation.

An earlier study (Canady, 1975) used the ambivalence, frustration, and Preference for Team Teaching measures. The measure of professional
ambition used in this study was from Meyer (1971) and was used by permission of the Stanford Center for Research and Development in Teaching (Brillson, 1973). It consisted of four items of which the following is an example:

I would be very interested in showing other teachers styles and techniques I've developed.

Three response choices were provided (disagree, neutral, agree), with respective scores of 1 to 3. These scores were summed to produce a measure of professional ambition, with possible scores on the variable ranging from 4 (low) to 12 (high).

Findings

Thirty teachers had ambivalence scores of 2 or 3, and they were designated as highly ambivalent. The remaining forty-six teachers obtained low ambivalence scores. A comparison of PTT means for the two groups appears in Table 1. Differences between group means by t-test analysis were significant at the .005 level of probability.

Forty-one teachers obtained frustration scores of 19 or below (out of a possible score of 36), and they were classified low on frustration. The other thirty-five teachers were classified high on that variable.

Teachers who were low on both ambivalence and frustration were assigned to a Favorable condition, while those who scored high on both variables were assigned to an Unfavorable condition. Teachers with mixed scores (high ambivalence and low frustration or low ambivalence and high frustration) were assigned to a Mixed condition.
It was expected that teachers under the Favorable condition would score highest on the PTT (most positive toward team teaching) and that teachers in the Unfavorable group would score lowest on that measure, indicating a negative attitude toward team teaching. The Mixed group was expected to fall between the extremes. As reported in Table 2, the findings supported the prediction. Scores on the t-test were significant at the .05 level of probability for the (Favorable-Mixed) comparison and at the .025 level of probability for the (Mixed-Unfavorable) comparison.

Table 2 about here.

Frustrating experiences encountered by teachers in the course of implementing an educational innovation can vary both in intensity and content. The frustration score is an indicator of intensity in which the qualitative aspect of teachers' experiences is ignored. In order to examine the content of the frustration scores, category subscores were computed. The categories and the number of items in each were: Mechanics of Team Teaching (4); Teacher Autonomy (1); Interpersonal Relations (4); and Obtaining Resources and Services (3).

In general, a teacher with a high frustration score relative to the scores of other teachers was considered likely to hold more negative attitudes toward team teaching, as indicated by a lower PTT score. Categories 1 and 2 (Mechanics of Team Teaching and Teacher Autonomy) were expected to have the most powerful influence on PTT scores. This was due, in the case of the Mechanics score, to the fact that these items were most directly related to the innovation. Teacher autonomy was expected to influence PTT score be-
cause of the concerns which teachers have about the possible loss of autonomy resulting from certain features of team teaching. Categories 3 and 4 (Interpersonal Relations and Obtaining Resources and Services) were expected to show a less strong relationship to PTT scores. Both categories are concerned with problems that might be experienced in team teaching as well as in other instructional arrangements.

Results of the analysis are reported in Table 3. Teachers were divided into two groups on the basis of the category subscores, and differences in PTT means were analyzed by use of the t-test. Teachers with low subscores on Mechanics of Team Teaching (i.e., those reporting fewer and less severe problems in that area) had a PTT mean of 4.17, virtually identical to the 4.18 for teachers scoring high on that category. PTT means for teachers with low and high frustration scores on the Autonomy category were 4.41 and 3.50 respectively, and by t-test analysis, the difference between those means was significant at the .01 level of probability.

On the Interpersonal category, teachers with low frustration levels had a PTT mean of 4.40, compared to a mean of 3.84 for teachers with high frustration scores. The difference in means was statistically significant at the .10 level. Differences in mean PTT scores for teachers at two levels of frustration related to Obtaining Resources and Services were not statistically significant. The findings only partially supported the hypothesis.

As predicted, team leader experience had a significant relationship to teachers' attitudes toward team teaching. This association appears to
exist because experienced leaders are more successful in reducing the level of frustration encountered by teachers who are implementing a team teaching program. It is indicated in Table 4 that teachers assigned to teams led by persons in their second or third years as team leader obtained lower mean frustration scores than did teachers in teams led by persons who were in the first year leading a team. Similarly, teams led by more experienced leaders had higher mean PTT scores than did teams led by less experienced leaders. Differences in both cases were statistically significant by t-test analysis. Teachers on teams led by experienced leaders tend to have had more team teaching experience themselves than have their colleagues on low leader experience teams. In this study, teachers on experienced-leader teams averaged one year more team teaching experience than teachers on inexperienced-leader teams. However, teacher team teaching experience did not appear to be a factor in reducing the level of frustration. A t-test of the difference in means on the frustration variable for more and less experienced team teaching teachers yielded a value of .62 (df = 22), which was not statistically significant.

Team leaders were divided into two groups on the basis of scores on the professional ambition variable. As reported in Table 5, analysis was based on the scores of eight persons with scores below 10 (classified low on professional ambition) and nine individuals with scores of 11 or 12, who were classified high on the variable. Five persons had scores of 10, and they were
deleted from the analysis in order to equalize the groups and heighten contrast between them. Using this method, t-test analysis showed that differences between groups on the PTT were not statistically significant. Mean frustration scores were similar, with only .2 scale points separating the two groups.

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Table 5 about here
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Summary and Implications

An underlying assumption of the present research was that teachers' attitudes affect their support for and, ultimately, the success of educational innovations. It was shown that two factors are important in predicting teachers' attitudes toward the innovation of team teaching. They are feelings of ambivalence arising from conflict between teachers' values and role requirements and frustrations arising from problems encountered by teachers. High levels of ambivalence and frustration are associated with more negative attitudes toward team teaching. In this study, frustration was operationally defined as the incidence and severity of problems as perceived by teachers.

The hypothesized relationship between the nature of the problems teachers experience and attitudes toward team teaching was only partially confirmed. It appears that the most reliable predictor of teacher frustration is an overall measure of problem incidence and severity.

The study found that teachers' frustration levels and ambivalence interact so that teachers who are low on both variables are most positive toward the innovation, while those who are high on both measures are most
negative. Individuals who are high on one measure and low on the other or vice versa fall between the extremes in attitudes toward team teaching. Attention has been given to identifying and dealing with the sources of teacher frustration (Gross, 1971), but little empirical research has appeared with respect to values held by teachers and the relationship of those values to attitudes toward a teaching practice.

A leader characteristic --length of experience as leader--was found to be associated with lower levels of teacher frustration and more positive teacher attitudes toward team teaching. It is suggested by this finding that more experienced leaders are able to deal more effectively with the sources of teachers' frustrations. However, this finding must be interpreted with care because team leaders who remain in the position more than one year may differ in other ways from leaders who leave.

Leader professional ambition appears to have no bearing on teachers' frustration levels and attitudes toward team teaching. The rationale for the hypothesized relationship was that professionally ambitious team leaders would be perceived as less threatening by teachers who value autonomy and also as more helpful to teachers as compared with team leaders who are not professionally ambitious. The failure to confirm the hypothesis may be due to the fact that team leaders in this study were relatively similar on the professional ambition measure. Although scores at the median were deleted from the analysis, the range nevertheless was relatively narrow. However, other explanations are possible. Variations in the team leaders' level and quality of ambition may not be reflected in role performance with sufficient clarity to be perceived by teachers. Finally, it is not clear to what extent
teachers perceive team leaders as occupying positions of authority in schools. Even though a team leader may aspire to authority, the present fact of his lack of authority may be more important to teachers.
Table 1

Teacher Ambivalence and Attitudes toward Team Teaching

<table>
<thead>
<tr>
<th>Ambivalence Level</th>
<th>N</th>
<th>PTT*Mean</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>46</td>
<td>4.63</td>
<td>3.31</td>
<td>74</td>
<td>P&lt;.005</td>
</tr>
<tr>
<td>High</td>
<td>30</td>
<td>3.47</td>
<td></td>
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</tbody>
</table>

* Preference for Team Teaching

Table 2

Teacher Attitudes toward Team Teaching under Three Conditions of Favorableness

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>PTT Mean</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td>Favorable (low ambivalence, low frustration)</td>
<td>26</td>
<td>4.81</td>
<td>1.89</td>
<td>60</td>
<td>P&lt;.05</td>
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<tr>
<td>Mixed</td>
<td>36</td>
<td>4.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unfavorable (high ambivalence, high frustration)</td>
<td>14</td>
<td>3.14</td>
<td>2.06</td>
<td>48</td>
<td>P&lt;.025</td>
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</table>
Table 3
Teacher Frustration Levels and PTT Scores by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>No. Items</th>
<th>Frustration Level Low</th>
<th>PTT Mean</th>
<th>N</th>
<th>Frustration Level High</th>
<th>PTT Mean</th>
<th>N</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanics</td>
<td>4</td>
<td>4.17</td>
<td>36</td>
<td></td>
<td>4.18</td>
<td>40</td>
<td></td>
<td>----</td>
<td></td>
<td>NS</td>
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<tr>
<td>Autonomy</td>
<td>1</td>
<td>4.41</td>
<td>56</td>
<td></td>
<td>3.50</td>
<td>20</td>
<td></td>
<td>2.39</td>
<td>74</td>
<td>P&lt;.01</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>4</td>
<td>4.40</td>
<td>45</td>
<td></td>
<td>3.84</td>
<td>31</td>
<td></td>
<td>1.60</td>
<td>74</td>
<td>P&lt;.10</td>
</tr>
<tr>
<td>Resources</td>
<td>3</td>
<td>4.42</td>
<td>40</td>
<td></td>
<td>3.95</td>
<td>36</td>
<td></td>
<td>1.27</td>
<td>74</td>
<td>NS</td>
</tr>
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</table>

Table 4
Team Mean Frustration and PTT Scores by Leader Experience

<table>
<thead>
<tr>
<th>Leader Experience</th>
<th>Team Mean, N</th>
<th>Frustration Mean</th>
<th>t</th>
<th>PTT Mean</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (1 year)</td>
<td>15</td>
<td>19.89</td>
<td>1.75*</td>
<td>4.01</td>
<td>2.87**</td>
</tr>
<tr>
<td>High (2-3 years)</td>
<td>9</td>
<td>17.79</td>
<td>5.50</td>
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</tbody>
</table>

*P<.05 (df = 22)
**P<.005 (df = 22)
Table 5

Team Mean Frustration and PTT Scores by Leader Professional Ambition

<table>
<thead>
<tr>
<th>Ambition Level</th>
<th>N</th>
<th>Frustration</th>
<th>( t )</th>
<th>PTT Mean</th>
<th>( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>8</td>
<td>18.79</td>
<td>.16*</td>
<td>4.18</td>
<td>.26*</td>
</tr>
<tr>
<td>High</td>
<td>9</td>
<td>18.99</td>
<td></td>
<td>4.32</td>
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</tbody>
</table>

*NS.
References


