A sample of 108 elementary student teachers was administered the Pupil Control Ideology Form (PCI Form) before and after student teaching. The student teachers' perceptions of their cooperating teachers' pupil control ideology were measured using a modification of the same form. "Socialization pressure," the difference between the student's pretest PCI Form score and the perceived pupil control ideology of the cooperating teacher, was also used as a variable. Student teachers as a group became significantly more custodial (shown by increased PCI Form scores) during student teaching. Comparison of students showing no increase in PCI Form scores and an equal number showing the largest increase, showed the two groups to differ significantly on mean perceived PCI scores and on mean socialization pressure. Examination of the differences in mean change in PCI Form scores of students in situations of low, medium, and high socialization pressure showed significant differences between low and high groups and low and medium groups. (EB)
THE RELATIONSHIP BETWEEN THE CHANGE IN PUPIL CONTROL IDEOLOGY
OF STUDENT TEACHERS AND THE STUDENT TEACHER'S PERCEPTION
OF THE COOPERATING TEACHER'S PUPIL CONTROL IDEOLOGY

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Introduction

The quality of the learning environment found in a science classroom is largely the result of the teacher's attitudes and beliefs concerning students and teaching. For this reason, the successful implementation of new curricula and their related instructional strategies requires careful consideration of what changes new approaches will require in the teacher-pupil relationship.

At the present time the emphasis in science education is on the use of an inquiry approach to instruction. Use of this method necessitates a change in the role of the teacher from that of an imparter of information to that of a resource person and an evaluator of learning. At the same time, the student's role changes from one of dependency upon the teacher to one of competency in directing his or her own inquiry activities. The key to these changes in teacher-pupil roles lies in the willingness and ability of the teacher to relinquish a large measure of control over student activities so that the students can accept more responsibility for their learning.
It is at this point that the use of an inquiry approach may run into difficulty. According to Willower, Hoy, and Eidell\(^1\), the teacher's concern for the control of his students is an all-pervasive influence which is like a "thread running through the cultural fabric of the school."

The use of an inquiry approach and the inherent changes in the roles of both teacher and student have the effect of reducing the status difference between student and teacher. Such a situation may be perceived by teachers as establishing an undesirable relationship with their students. As a consequence, concern for pupil control may act as a block to the implementation of any teaching strategy or course arrangement which is perceived as resulting in loss of teacher authority and reduction of teacher status.

Statement of the Problem

Since most teacher education programs approach the issue of pupil control from a liberal or humanistic point of view, the question arises concerning where and how the classroom teacher's view of control is altered to produce the previously discussed block to greater student involvement in the learning process. A review of the literature reveals two important points. First, the adjustment of a pre-service teacher to the accepted norms of the teaching profession is a process of socialization. Second, in this socialization process, the behaviors, attitudes, and beliefs of the cooperating teacher are significant influences on the transition from college student to classroom teacher.
It is during the student teaching experience that the pre-service teacher first has the opportunity to compare his college instruction in teaching with the views of an experienced teacher in a classroom situation. If, as has been suggested earlier, one of the prime concerns of the classroom teacher is that of pupil control, then the stage is set for a conflict between the beliefs the pre-service teacher has developed during his campus experience and the beliefs of the cooperating teacher. It is the severity of this conflict and the methods used to reduce the conflict that are important in shaping the way the new teacher will view teaching and pupils.

Horowitz\textsuperscript{2}, in discussing the difference between the beliefs of student teacher and cooperating teacher, pointed out that, while the real differences may be important, even more crucial are the assumed differences that the student teacher perceives between his views and those of his cooperating teacher. Etzioni\textsuperscript{3} emphasized that the greater the difference between the beliefs of an organization and those of a new member, the greater the pressure exerted on the new member to bring his views into agreement with those of the organization. Therefore, the focus of this study was the relationship between the change in pupil control ideology of student teachers and the student teacher's perception of the cooperating teacher's pupil control ideology.
The null hypotheses developed and tested were:

1. The mean post-test PCI Form score for the elementary student teachers will not differ significantly from their mean pre-test PCI Form score.

2. There will be no significant difference between the distribution of student teaching grade levels of those elementary student teachers showing no increase in custodialism and of an equal number of those elementary student teachers showing the greatest increase in custodialism.

3. There will be no significant difference between the mean Perceived PCI Form scores of those elementary student teachers showing no increase in custodialism and of an equal number of those elementary student teachers showing the greatest increase in custodialism.

4. There will be no significant difference between the mean socialization pressure experienced by those elementary student teachers showing no increase in custodialism and by an equal number of those elementary student teachers showing the greatest increase in custodialism.

5. There will be no significant difference between the mean of the change in pupil control ideology scores of student teachers in situations of low socialization pressure, medium socialization pressure, and high socialization pressure.

Experimental Design

One hundred and eight elementary pre-service teachers comprised the sample population. All participants were in the last semester of their senior year, during which time they received eight weeks of on-campus methods instruction and then did eight weeks of student teaching in the public schools.

The participants' views on pupil control were measured using the Pupil Control Ideology Form (PCI Form) developed by Willower, Eidell, and Hoy. This form is a twenty-item instrument designed
to measure the pupil control ideology of an individual on a custodial-humanistic continuum; the higher the score of the individual, the more custodial his views on pupil control. The pupil control ideology of the participants was measured twice during the semester.

A pre-test PCI Form was administered during the fifth week of on-campus methods instruction. The post-test PCI Form was given during the last week of the student teaching experience.

To ascertain how the student teachers perceived the pupil control ideology of their cooperating teachers, a modified version of the PCI Form was developed and referred to as the Perceived PCI Form. The modification involved adding the introductory phrase "my cooperating teacher would feel that..." to each of the PCI Form's twenty items. The participants were asked to fill out the Perceived PCI Form during their last week of student teaching.

The difference between the student teacher's pre-test PCI Form score and the Perceived PCI Form score of her cooperating teacher was used as a measure of the pressure felt by the student teacher to bring her views on pupil control into agreement with those of the cooperating teacher. This difference was referred to as the socialization pressure in the student teaching experience.

To determine the relationship between differing levels of socialization pressure and the change in the student teachers' pupil control ideology, three groups with differing socialization pressure scores were compared.
Results

Hypothesis one, the mean post-test PCI Form score for the elementary student teachers will not differ significantly from their mean pre-test PCI Form score, was rejected. In Table I are shown the results of the t-test of the difference between the means.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>t</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>40.7315</td>
<td>5.3819</td>
<td>6.9763</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Post-Test</td>
<td>45.7315</td>
<td>7.9103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It should be noted that, while the sample as a whole did show a significant increase in custodialism, thirty-two of the one hundred and eight subjects showed no increase in custodialism.

The testing of hypotheses two, three, and four involved comparing Group A, the thirty-two subjects showing no increase in custodialism, with Group B, the thirty-two subjects with the greatest increase in custodialism.
Hypothesis two, there will be no significant difference between the distribution of student teaching grade levels of those elementary student teachers showing no increase in custodialism and of an equal number of those elementary student teachers showing the greatest increase in custodialism, was not rejected. In Table II are shown the results of the Kolmogorov-Smirnov test for differences between the distribution of student teaching grade levels in Group A and Group B.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative Frequency</td>
<td>Group A</td>
<td>4/32</td>
<td>12/32</td>
<td>14/32</td>
<td>21/32</td>
<td>26/32</td>
<td>32/32</td>
</tr>
<tr>
<td>Cumulative Frequency</td>
<td>Group B</td>
<td>1/32</td>
<td>10/32</td>
<td>17/32</td>
<td>23/32</td>
<td>27/32</td>
<td>30/32</td>
</tr>
<tr>
<td>Deviation (D)</td>
<td>3/32</td>
<td>2/32</td>
<td>3/32</td>
<td>2/32</td>
<td>1/32</td>
<td>2/32</td>
<td>0</td>
</tr>
</tbody>
</table>

The value of D required for significance at .05 level is 11/32.
Hypothesis three, there will be no significant difference between the mean Perceived PCI Form scores of those elementary student teachers showing no increase in custodialism and of an equal number of those elementary student teachers showing the greatest increase in custodialism, was rejected. In Table III are shown the results of an analysis of variance of the mean Perceived PCI Form scores of the two groups.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>63</td>
<td>9687.7461</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>1</td>
<td>976.5625</td>
<td>976.5625</td>
<td>6.9505</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td>Within</td>
<td>62</td>
<td>8711.1836</td>
<td>140.5030</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis four, there will be no significant difference between the mean socialization pressure experienced by those elementary student teachers showing no increase in custodialism and by an equal number of those elementary student teachers showing the greatest increase
in custodialism, was rejected. In Table IV are shown the results of an analysis of variance of the mean socialization pressure, the difference between the student teacher's pre-test PCI Form score and the Perceived PCI Form score of her cooperating teacher, for Group A and Group B.

TABLE IV
AN ANALYSIS OF VARIANCE OF MEAN SOCIALIZATION PRESSURE FOR GROUP A AND GROUP B

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>63</td>
<td>9511.4844</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>1</td>
<td>1753.5156</td>
<td>1753.5156</td>
<td>14.0137</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Within</td>
<td>62</td>
<td>7757.9687</td>
<td>125.1285</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis five, there will be no significant difference between the mean change in pupil control ideology of student teachers in situations of low socialization pressure, medium socialization pressure, and high socialization pressure, was rejected. In Table V are shown the results of an analysis of variance of the mean change in pupil control ideology for three socialization pressure groups. The three groups were selected to represent low, medium, and high
socialization pressure. A range of ten socialization pressure points separated each group. Fifty-two subjects fell into these ranges and were eliminated from consideration to insure that each group was truly representative.

TABLE V
AN ANALYSIS OF VARIANCE OF MEAN CHANGE IN PUPIL CONTROL IDEOLOGY FOR THREE SOCIALIZATION PRESSURE GROUPS

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>55</td>
<td>3314.5532</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>2</td>
<td>1103.2383</td>
<td>551.6191</td>
<td>13.2210</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Within</td>
<td>53</td>
<td>2211.3149</td>
<td>41.7229</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of a Scheffe test applied to the analysis of variance data to determine the location of significant differences between the three group means are shown in Table VI.
TABLE VI
Scheffe Test to Determine the Location of Significant Differences Between Three Group Means

<table>
<thead>
<tr>
<th>Comparison of Group Means</th>
<th>F</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low and Medium</td>
<td>20.8097</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Low and High</td>
<td>23.1865</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Medium and High</td>
<td>1.4187</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

The $F$ value for significance at the .01 level with 2 and 55 degrees of freedom is 10.02.

Discussion and Implications

The ability to generalize from the findings of this study is inherently limited by the nature of the sample and the restricted nature of the problem. However, the following discussion, based upon the analyses, may have some implications for larger populations.

First, the pupil control ideology of the student teachers, as a group, did become significantly more custodial during student teaching. The data support the assumption by the investigators that the student teaching experience does modify student teachers' views and modifies these views in a custodial direction.

Second, since the process of socialization is complex, the observed changes in student teachers' views were the result of the
interaction of many factors. The findings reported here indicate that one of the factors directly related to change in pupil control ideology is the student teacher's perception of the cooperating teacher's beliefs on pupil control. Also significantly related to the observed changes in student teacher pupil control ideology is the degree of difference existing between the student teacher's views and his perception of the cooperating teacher's views, the socialization pressure of the situation. In the data presented, there was an increase in the mean change in pupil control ideology at each progressively higher level of socialization pressure. Although the difference in the mean change in pupil control ideology at low and medium levels was significant, the mean change in pupil control ideology at medium and high levels was not significant. This lack of significance indicates that there may be an upper limit to the socialization pressure which can bring about change in views. At that upper limit, the difference between the student teacher's views and his perception of the cooperating teacher's views may be so great as to make adjustment on the part of the student teacher difficult, if not impossible.

The findings of this study emphasize the significance of the socialization of new teachers into the profession. If a humanistic pupil control ideology is desirable, care must be taken to select cooperating teachers whose attitudes and beliefs toward pupil control are consistent with this desired ideology. Furthermore, if a teacher feels that both status and authority are threatened unless
students are rigidly controlled, the probability of the use of curricular materials emphasizing inquiry is greatly reduced. Therefore, the need to develop and utilize techniques for modifying teachers' existing pupil control ideologies is important both from a standpoint of socialization of new members of the profession and improvement of instruction by existing members of the profession.

Synopsis

Using a sample of one hundred and eight elementary student teachers, the relationship between student teacher change in pupil control ideology and student teacher perception of cooperating teacher pupil control ideology was examined. Change in pupil control ideology was determined by administering the Pupil Control Ideology Form (PCI Form) before and after student teaching. The student teacher's perception of her cooperating teacher's pupil control ideology was measured using the Perceived Pupil Control Ideology Form, a modification of the PCI Form. Socialization pressure, the difference between student teacher pre-test PCI Form score and the perceived pupil control ideology of the cooperating teacher, was introduced as a measure of the degree of agreement between student teacher and cooperating teacher pupil control ideologies.

The PCI Form scores of student teachers, as a group, increased significantly (p < .01) during student teaching. Comparison of two groups, student teachers showing no increase in PCI Form scores and an equal number of student teachers showing the largest increase in
PCI Form scores, revealed the two groups to be significantly different on (1) mean Perceived PCI scores (p < .05), and (2) mean socialization pressure (p < .01). Examination of the differences in mean change in pupil control ideology of student teachers in situations of low, medium, and high socialization pressure showed the following: the differences in mean change in pupil control ideology for low and medium socialization pressure and for low and high socialization pressure were significant (p < .01). The differences in mean change in pupil control ideology for medium and high socialization pressure were not significant.

If a more humanistic pupil control ideology is desirable, there is a need to develop and utilize techniques for modifying teachers' existing pupil control ideologies, both from the standpoint of socialization of new teachers and improvement of instruction by existing teachers. If a teacher feels that both status and authority are threatened unless students are rigidly controlled, the probability of the use of curricular materials emphasizing inquiry is greatly reduced.
References


