The study examined teacher-pupil transaction in racially mixed classrooms and the effect on the student's degree of participation, learning, and attitudes toward self and school. Conducted at the Grove Elementary School (fictitious name) in Sonora (fictitious name), California, the study divided students into four categories (Anglo boys, Anglo girls, Chicano boys, and Chicano girls) to see if teachers extend differential treatment. Fifteen classes (grades 1-6) were observed for 214 hours. Teacher-pupil interaction was studied in seven categories: reward, punishment, control and management, teacher assigning academic-prestigious and nonacademic-prestigious tasks, and nontask academic and nonacademic teacher-pupil interaction. Data were collected through standard ethnographic techniques (participation, observation, and interviews), modified interaction analysis schemes, questionnaires administered to the school personnel and the fourth, fifth, and sixth grade students, critical incidents, enumeration, census data, and an Occupational Interest Inventory. It was found that: (1) teachers interacted more with Anglo than with Chicano students; (2) Anglo boys ranked highest in all seven interaction categories; (3) Anglo girls came second in four of the seven areas; (4) teachers interacted least with Chicano girls in all categories; and (5) teachers interacted more with boys than girls in all areas. (NQ)
Teacher-Pupil Transaction in Bi-racial Classrooms; Implications for Instruction

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Introduction: This paper is based on my involvement and experiences with Mexican Americans over a three-year period; more specifically it is the product of a comprehensive study conducted at the Grove Elementary School (fictitious name) in the town of Sonora (fictitious name), California.

Research Methods: The bulk of the data was collected through standard ethnographic techniques—participation, observation, and interviewing (Molnar, 1971; Pelto, 1970; Rist, 1972; Sindell, 1969; Spindler, 1963; and Wolcott, 1972). Quantitative data for teacher-pupil transaction in the classroom and for staff and PTA meetings were gathered through the use of modified interaction analysis schemes developed by Amidon and Hough (1967), Amidon (1963), and Flanders (1970). Questionnaires were administered to the entire school personnel and to all of the 4th, 5th, and 6th grade students. Additional data were collected through critical incidents, enumeration, census data, and an Occupational Interest Inventory.

The School and its Sociocultural Milieu: This study was based on the assumption that we can neither understand the school thoroughly, appreciate its problems and complexities, nor reform it radically without due regard for its sociocultural context. The school does not exist in a sociocultural vacuum; as a subsystem of society it is structurally and functionally intertwined with society and culture; the school needs society for its raw material and the sociocultural system depends on the school for its survival. Therefore, a brief description of the town of Sonora is not only appropriate but essential for our understanding of the teacher-pupil interaction in the school.

Sonora and Grove School were roughly 70% Mexican and 30% Anglo. The town conveyed an overwhelming feeling of poverty, isolation, neglect and decay. Few
of the streets were paved; there was no zoning; the town is dotted with refuse, debris, junk yards, abandoned autos, garbage dumps, and swamps; there were few trees and fewer lawns in the town. Most of the one-story houses consisted of condemned structures hauled from other locations and put atop cinder block stilts. Forty-eight percent of the homes were substandard, 33% dilapidated, and all of the structures in poor condition. Family size ranged from 4 to 22 with the average being 6. Fifty-nine percent of the population fell under 19 years of age. Entertainment and cultural facilities were virtually non-existent.

Educational attainment among Sonora's residents was low at all age levels and the dropout rate was high. The median school year completed was 8.3; 65% of the 16 and 17-year-olds attended school and only 50% of those 25 years and older had completed eight years of school (Gazni Planning Dept., August 4, 1970). There was only one Mexican American college graduate living in Sonora.

The quality of new immigrants and the low level of education among the town's old residents have led to an unusually high rate of unemployment and/or underemployment. The situation was made worse by the fact that only 40% of the population was of working age. Furthermore, the highly industrialized nature of the job market in the vicinity allowed very few Mexican-Americans to be fully and gainfully employed. Consequently those who were able to work and could find jobs worked mostly in low-level blue-collar occupations. A 1970 report (Gazni Planning, August 1970) indicated that one-third of Sonora's population was below the poverty level--50% earned less than $5,000 per year. Per capita income was $1,000. Unemployment ranged from 13.2% to 23%. In addition to these problems the town was also beset with numerous civic, social, political, health, and survival problems.

Grove Elementary School was built in 1956 and is located adjacent to the town. The physical plant is limited; the school does not have a cafeteria, hallways, auditorium, gymnasium, or enough rooms. Of the entire staff only the
secretary, the bus driver, the custodians and six of the aides lived in Sonora. The rest commuted to the school from the surrounding middle class communities. The school included pre-school to 6th grade. It had about 420 students and 17 teachers with as many as 40 auxiliary service people. Average expenditure per child was $500 per year. To put this into perspective, the national average was $858; and expenditure in a nearby upper middle class community was $1400 (Statistical Abstracts of the U.S., 1972). This was the background in which Sonora's children lived and went to school.

**Theoretical Framework:** The classroom is viewed as a small scale social system which consists of formal and informal social structures in which various role-players occupy different status categories. By status is meant one's position in a group or social structure; i.e., the way in which individual members in a group rank each other. In small groups (classrooms) status differentials emerge when members interact with each other over an extended period of time. This is mainly due to the members constantly judging and ranking each other on a number of variables. Educational sociologists (Cohen, 1972) hypothesize that the classroom contains various status systems and that the teacher is closely involved in the development and perpetuation of some of these status systems. Cohen points out that these status systems in the classroom may be based on societal status characteristics such as sex, ethnicity, race, SES, etc.; sociometric status characteristics in which members in the class rank one another on the basis of popularity, power, attraction and so on; or achievement status characteristics such as grades and general academic performance.

There is sufficient evidence to show a definite relationship between one's position in the classroom status systems and his/her participation, communication, and learning (Brookover, 1965). Katz (1972) and Brophy and Good (1970) found measurable association between a student's status and his/her activity rates in
the class. They found that girls initiate less communication in the class. Katz found that brown and black children were less active in class than their Anglo peers. She also found that teachers called less on Chicanos than they raised their hands and that Anglos spoke more than they raised their hands.

Achievement status affects classroom participation and learning through the effects of the "self-fulfilling Prophecy" or "the Pygmalion Effect" (Rosenthal and Jacobson, 1968, 1973; Rist, 1970). This means that students behave and perform pretty much the way teachers expect them to. The so-called bright students initiate more communication, are evaluated favorably, are given more tasks, and are expected to excel; and they live up to such expectations. On the other hand, the so-called low-achievers are not expected to achieve, they are given fewer tasks, and they are judged less favorably; and they live up to this. Brophy and Good (1970) found that the students who were rated "high" were more active in the class and drew more praise and less punishment from the teacher than those who were rated "low". They also found that teachers demanded more from the "high" students than from the "low" ones.

The effect of sociometric status systems in the classroom has been documented by Schmuck (1962, 1963). He found that children who know that they are less likeable and less influential among their classmates did poorly in comparison to those who perceive themselves and were perceived by their peers as likeable and influential.

**Problem Foci:** This investigation dealt with teacher-pupil transaction in racially mixed classrooms. It attempted to discover the various status systems and the effect those systems may have on teacher-pupil transaction, which, in turn, affects the student's degree of participation, learning, and attitudes toward self and school. The four status categories included Anglo boys, Anglo girls, Chicano boys, and Chicano girls. The idea was to see if teachers extend differential
treatment to these four categories of students. It was predicted that teachers would discriminate (consciously or unconsciously) against Chicano students. Seven categories of verbal, facial, and physical teacher-initiated teacher-pupil transactions were observed, scored, and analyzed. The observation took place once at the beginning of the school year and again toward the middle of the school year. Fifteen classes, grade one through six in the same school, were observed for a total of 214 hours for this purpose. Teacher-pupil interaction was studied in the following seven categories:

1. **Reward** - including praise, giving candies, badges, hugging, an approving smile by the teacher, etc.

2. **Punishment** - including scolding, sarcastic comments, deprivation, twisting a kid’s arm, hitting children, having the child stand against the wall, or writing something 100 times, detention, etc.

3. **Control and management** - such as the teacher ordering the students to do or not to do something, the teacher turning a child’s head or body in a certain direction, the teacher whistling to stop the noise or to get attention, or the teacher asking a child “do you have wet diapers?”

4. **Teacher assigning academic-prestigious tasks** - the teacher calling on a child to do a problem on the board, to recite something, or to help another child, etc.

5. **Teacher assigning non-academic prestigious tasks** - the teacher asking a child to take the lunch money to the office or a projector to the learning center, to be team leader or the monitor, or to decorate the room. Examples of non-academic and non-prestigious tasks would include instances of the teacher asking a child to clean the floor, open the window, distribute or collect materials in class, or to feed the class pet.

6. **Non-task academic interaction** between the teacher and student(s) - when the teacher helps a child or a group of children with school work.

7. **Non-task and non-academic teacher-pupil interaction** - when the teacher and students are socializing, carrying small talk, or are interacting in other ways.

Teacher-pupil interaction was divided into these seven categories for convenience and also because it was believed that almost all teacher-pupil interaction in the classroom could be classified in one of these seven areas.
Findings: When teacher-pupil interaction was broken down by race, and when we controlled for sex, it was found that teachers interacted more with Anglo than with Chicano students in all of the seven categories. As Table I shows, teachers rewarded Anglo students three times more than Chicanos; and Anglo students were given three times as many tasks as Chicanos. Teachers had twice as much non-task academic interaction with Anglos than with Chicanos, and teachers spent ten times more time with Anglo students in non-task and non-academic interaction. Surprisingly enough, Anglo students drew more punishment, control, and management as well. Table II compares teacher-interaction with the four categories of students, or occupants of the four major status systems in the classroom, i.e., Mexican-American boys, Mexican-American girls, Anglo boys, and Anglo girls. Anglo boys rank the highest in every one of the seven categories of interaction. Teachers interacted more with Anglo boys than with any of the other categories. Anglo girls came second in four of the seven areas. Mexican-American boys came third in five of the seven areas of interaction. They were followed by Mexican-American girls. Teachers interacted least with Chicano girls in all of the seven interaction categories. Table III indicates teacher interaction with boys and girls with control for race. As we can see, teachers interacted more with boys than with girls in all of the seven interaction areas. The difference in interaction was particularly marked in control and management (1.244 acts for boys and .905 for girls), punishment (.149 for boys and .095 for girls), and in academic-prestigious tasks (.352 to .294). In general Anglos as a group and boys as a group drew more punishment, control, and management.

Discussion: The differential treatment that the teachers extended to the occupants of the four status systems may be due to any one or a combination of the following reasons. First, teachers did not expect "good" behavior from their Chicano students, thus "misbehavior" on the part of Chicanos was either
Table VII-1

Mean and Range of Classroom Teacher-Student Transaction Rates by Race
for 15 Coyote Elementary School Classes
(With Control for Sex)

<table>
<thead>
<tr>
<th></th>
<th>Reward</th>
<th>Punishment</th>
<th>Control and Management</th>
<th>Academic Prestigious Tasks</th>
<th>Non-Academic Non-Prestigious Tasks</th>
<th>Non-Task Academic Interaction</th>
<th>Non-Task Non-Academic Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Mexican Americans</td>
<td>.258</td>
<td>.115</td>
<td>.985</td>
<td>.252</td>
<td>.080</td>
<td>1.133</td>
<td>.573</td>
</tr>
<tr>
<td></td>
<td>.07-.83</td>
<td>.02-.44</td>
<td>.32-.1.16</td>
<td>.02-.78</td>
<td>.03-.28</td>
<td>.48-.1.62</td>
<td>.25-.1.03</td>
</tr>
<tr>
<td>With Anglos</td>
<td>.651</td>
<td>.137</td>
<td>1.434</td>
<td>.677</td>
<td>.146</td>
<td>2.027</td>
<td>1.009</td>
</tr>
<tr>
<td></td>
<td>.00-.1.52</td>
<td>.00-.88</td>
<td>.00-.3.69</td>
<td>.00-.1.37</td>
<td>.00-.34</td>
<td>.00-.3.87</td>
<td>.00-.1.53</td>
</tr>
</tbody>
</table>

\[
\text{Mean Rate} = \frac{\sum_{\text{periods}} \text{Number of transactions of given type directed to pupils of given type during the period}}{\text{Number of pupils of given type in class during period} \times \text{Total number of periods observed}}
\]
Table VIII-2
Mean and Range of Classroom Teacher-Student Transaction Rates by Sex
For the Entire Coyote Elementary School Sample
(With Control for Race)

<table>
<thead>
<tr>
<th></th>
<th>Reward</th>
<th>Punishment</th>
<th>Control and Management</th>
<th>Academic Prestigious Tasks</th>
<th>Non-Academic Non-Prestigious Tasks</th>
<th>Non-Task Academic Interaction</th>
<th>Non-Task Non-Academic Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Male Students</td>
<td>.336</td>
<td>.149</td>
<td>1.244</td>
<td>.352</td>
<td>.090</td>
<td>1.298</td>
<td>.683</td>
</tr>
<tr>
<td></td>
<td>.07-.66</td>
<td>.04-.57</td>
<td>.35-2.30</td>
<td>.02-.108</td>
<td>.00-.20</td>
<td>.52-.2.19</td>
<td>.52-1.34</td>
</tr>
<tr>
<td>With Female Students</td>
<td>.325</td>
<td>.095</td>
<td>.905</td>
<td>.294</td>
<td>.088</td>
<td>1.256</td>
<td>.621</td>
</tr>
<tr>
<td></td>
<td>.13-.00</td>
<td>.00-.50</td>
<td>.26-1.75</td>
<td>.04-.87</td>
<td>.00-.26</td>
<td>.65-.2.18</td>
<td>.19-.95</td>
</tr>
</tbody>
</table>

Mean Rate = \( \frac{\text{Number of transactions of given type directed to pupils of given type during the period}}{\text{Total number of periods observed}} \)

Mean Rate = \( \frac{\text{Number of pupils of given type in class during period}}{\text{Number of pupils of given type in class during period}} \)
Table VII-3

Mean and Range of Classroom Teacher-Student Transaction Rates by Race and Sex for 15 Coyote Elementary School Classes

<table>
<thead>
<tr>
<th></th>
<th>Reward</th>
<th>Punishment</th>
<th>Control and Management</th>
<th>Academic Prestigious Tasks</th>
<th>Non-Academic Non-Prestigious Tasks</th>
<th>Non-Task Academic Interaction</th>
<th>Non-Task Non-Academic Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Mexican American Boys</td>
<td>.209</td>
<td>.143</td>
<td>1.036</td>
<td>.265</td>
<td>.077</td>
<td>1.185</td>
<td>.523</td>
</tr>
<tr>
<td></td>
<td>.06-.64</td>
<td>.03-.61</td>
<td>.36-1.70</td>
<td>.01-.76</td>
<td>.00-.15</td>
<td>.33-1.81</td>
<td>.30-1.34</td>
</tr>
<tr>
<td>With Mexican American Girls</td>
<td>.207</td>
<td>.075</td>
<td>.773</td>
<td>.257</td>
<td>.090</td>
<td>1.204</td>
<td>.472</td>
</tr>
<tr>
<td></td>
<td>.08-1.00</td>
<td>.00-.43</td>
<td>.29-1.59</td>
<td>.01-.78</td>
<td>.00-.34</td>
<td>.54-1.68</td>
<td>.20-1.44</td>
</tr>
<tr>
<td>With Anglo Boys</td>
<td>.803</td>
<td>.180</td>
<td>1.839</td>
<td>.764</td>
<td>.180</td>
<td>2.241</td>
<td>1.071</td>
</tr>
<tr>
<td></td>
<td>.00-2.07</td>
<td>.00-.92</td>
<td>.00-4.28</td>
<td>.00-1.93</td>
<td>.00-4.6</td>
<td>.00-4.36</td>
<td>.00-2.00</td>
</tr>
<tr>
<td>With Anglo Girls</td>
<td>.602</td>
<td>.097</td>
<td>1.152</td>
<td>.549</td>
<td>.111</td>
<td>.515</td>
<td>.235</td>
</tr>
<tr>
<td></td>
<td>.00-1.61</td>
<td>.00-.84</td>
<td>.00-2.79</td>
<td>.00-1.52</td>
<td>.00-.35</td>
<td>.00-5.08</td>
<td>.00-1.77</td>
</tr>
</tbody>
</table>

\[
\text{Mean Rate} = \frac{\text{Number of transactions of given type directed to pupils of given type during the period}}{\text{Total number of periods observed}} \times \frac{\text{Number of pupils of given type in class during period}}{\text{Number of periods}}
\]
ignored or it drew lesser punishment and control. Teachers may "explain away" or rationalize "misbehavior" by Chicanos. On the other hand, however, it can be hypothesized that teachers had high behavior and performance expectations and standards for their Anglo students and enforced these standards. Teachers might have considered it important to mold Anglo children in the "right way" and prepare them for their destiny (Leacock, 1969). Second, sometimes teachers simply did not bother to correct the behavior or academic performance of the Chicano children. Perhaps again in the teachers' eyes it did not matter, since Chicanos were not going to get any place anyway. Leacock (1969) and Lurie (1970) both substantiate this hunch. Third, perhaps teachers did not intervene in the behavior or academic performance of Chicano children because they wanted to avoid confrontation with these children. School personnel perceived Chicanos as "physical", "violent", "machismo" types and abusive in language. Female teachers were especially apprehensive about the growing Chicanismo and Chicano militancy in the town. Fourth, for Anglos school is more or less an extension of home life. They come better prepared, perceive themselves more efficacious, and are more active in the class. The teachers in turn reward and reinforce this behavior in Anglo students in various ways. Also, the more active a child is in the class, the more interaction he/she gets from the teacher--positive and negative. Teachers also have high expectation for Anglos which is communicated to them and to which they live up. Fifth, Chicano children have very low self-images. They are less efficacious, withdrawn, and are overwhelmed by the school. Therefore, they initiate and receive less interaction of all sorts.

**Conclusion:** The study reported herein, as well as similar studies conducted by others, has several important implications. It shows that public school teachers who are mostly middle class Anglos or aspire to becoming middle
class (Sexton, 1967) interact more favorably with those children who come from a similar socio-economic and racial background. They have very little tolerance for the "deviant" elements in the student population. This study documents once again the institutional racism that characterizes our school system (Baratz and Baratz, 1970). The study also points to the ethnocentric and mindless (Silberman, 1970) practices of the school personnel vis-a-vis Chicanos and other minorities. The study also indicates that the school is not the great equalizer but an instrument of social stratification. Teachers are not well-meaning and egalitarian educators but trainers in second-class citizenship. Needless to say that teachers and the school as an exclusive socializing agency of the mainstream sociocultural system damages Chicanos seriously and often permanently. The school alienates Chicanos from themselves, their culture, and the mainstream society. Teachers make it impossible for Chicanos to realize their own potential or "the American dream". The study further shows that discriminatory teacher practices may constitute the most important reason for failure in integration and compensatory education programs. Jencks, Coleman, and others fail to take this fact into consideration. Finally, the results of discriminatory teacher practices in regard to Chicanos and other minorities may seem to provide "support" for the racist theories of Jensen and Shockly. Whether teachers are aware or unaware of their behavior in the class is irrelevant. What is certain and significant is that the implication of their behavior mutilates and cripples Chicano children and it constitutes the antithesis of the concept of "freedom, justice, and the pursuit of happiness," and a decent and harmonious society.
References


