The relationship between classroom participation and student self concept is examined. This study tests the degree to which high and low participators differ in perception of (1) their own status with their peers, (2) their academic status, (3) their interest in studying and (4) dimensions of teacher consideration, teacher stress on subject, and teacher punitiveness. Sociometric questionnaires and tape recordings were used to analyze data from 90 fourth, fifth and sixth graders. Results indicate that high participators are more positive about themselves, their subject, and their perceptions of the teacher. (MPJ)
Verbal participation in classrooms is a phenomenon which has been examined for the last thirty years or so. The impression one receives when reading reports of these investigations is that verbal participation by students in classrooms is indeed not uniformly distributed, neither does it appear to be a function of one's year in school. Other information in these articles indicate that this inconsistency of participation occurs almost without regard for the subject matter being taught (subjects represented in the articles reviewed included Art, Biology, English, Mathematics, Reading, and Social Studies).

The non-uniform distribution of verbal participation, although apparently a recurring theme voiced by those who have observed in classrooms, nevertheless strikes a discordant note upon comparison with educators' notions concerning good teaching styles and methods. These educators argue that effective teaching contains a component in the methodology which encourages the verbal participation of every pupil (see, for example, Hughes, 1959; Flanders, 1960; Sullivan, 1962; Taba, 1964; Thoreson, 1966; and Thelen, 1967). Argument for this position is evident when one considers that one role of the American school is to develop the communicative skills of its youth. While communication can be carried out in a non-verbal as well as in a written mode, nevertheless the ability to verbally express one's ideas and opinions remains important if one is to function...
adequately in today's society.

The reference made above to Thoreson has particular relevance here because of his discussion of college students who perceived themselves as "non-participators" in discussion groups. These non-participators indicated feelings of social and intellectual inadequacy when relating to their peer group. Thoreson's work is important in its own right as it relates to the college environment. However, his findings gain in importance if it is found that these same results emerge in, say, the elementary school, for if the relationship between verbal participation and some aspects of self concept is consistent at the elementary level as well as at the college level, then perhaps emphasis should be given to this aspect of the management of class discussion by teacher educators who train teachers.

A previous study (Ahlbrand and Hudgins, 1970) has indicated that pupils who are high verbal participators in intermediate and junior high school classrooms are perceived by their peers as having higher sociometric status than their counterparts who are low participators.

The purpose of this study was to examine the self-perceptions of both high and low verbal participators in intermediate grade classrooms. The decision to concentrate on one's perception of self as opposed to his perception of others was made because of the growing body of knowledge which indicates the existence of a strong relationship between self concept and pupil achievement (see, for example, Bier and Trieschman, 1956; Spaulding, 1960; Purkey, 1967; Engle, Davis, and Mazer, 1968; Jones and Strowig, 1968; and Caplin, 1969). If a relationship is found between participation and self concept, it may suggest that teachers can enhance self concept and also achievement by careful attention to the participation of children in classrooms.
Specifically, the purpose of this study was to determine whether high and low verbal participators in intermediate grade classrooms express differing perceptions of 1) their own status with peers, 2) their academic status, 3) their interest in studying class material, and 4) dimensions of teacher consideration, teacher stress on the subject matter, and teacher punitiveness.

METHOD OF DATA COLLECTION

The sample was drawn from nine intermediate social studies classrooms (three fourth, three fifth, and three sixth grade classes). Each of the nine classrooms was tape recorded for five consecutive days of class instruction. An observer was present in the room to assure correct pupil identification in the interactive process.

At the conclusion of the five day session, the following instruments were given in order to obtain other information relevant to this study:

1. A sociometric questionnaire which asked the pupils to nominate along the dimensions of scholarship, leadership, and popularity. Pupils were requested to name peers who were "best" and "poorest" in these categories. They were encouraged to use their own name if they desired.

2. A questionnaire which asked the pupil to rank-order his preferred choice of subject to study from a list which included Arithmetic, English, Reading, Science, Social Studies, and Spelling.

3. An item on the sociometric questionnaire which asked the pupil to indicate his perceived progress in social studies at the time the participation data were gathered. Studies indicated their progress by the use of letter grades.
4. A questionnaire which asked the pupil to indicate how often his teacher engaged in behaviors described above as being considerate, stressing the subject matter, and being punitive. This questionnaire consisted of twenty-four items, and was field tested with a group of one hundred twenty-five fourth grade pupils from three separate school districts.

THE PARTICIPATION SCORE

The tape recordings and observer comments were collated into typescripts which were subsequently scored for the participation of the pupils. Participation was operationalized as verbal communication with the teacher, as that communication exist in the teacher question-pupil response mode of classroom interaction. The question-response mode was chosen primarily because a previous study (Hoetken and Ahlbrand, 1969) had indicated that this interaction pattern was the most prevalent one occurring in today's classrooms.

From the typescripts each pupil was given an initial score which indicated the number of times he was involved in the interactive mode previously mentioned. A z score was then assigned each pupil; this score took into account the number of times he was verbally involved as well as the number of minutes he spent in class. Pupils who were absent three or more days were excluded from the initial same pool. Five was added to each z score to eliminate negative numbers.

SCORES ON THE PERCEPTION INSTRUMENTS

1. The sociometric score: a score of 3, 2, or 1 was given each of the sample pupils to indicate whether they perceived themselves to be one of the "best" (3), one of the "poorest" (2), or whether they did not select themselves at all (1), for each of the three dimensions of peer status.
2. The academic status score: pupils gave themselves letter scores to indicate perceived progress in social studies at the time the instrument was administered. These letter grades were transformed into numbers so that 9=A, 8=B+, and so on to 1=C-. There were no perceptions of grades lower than C-. 

3. Interest in studying class material: a number was given each pupil which indicated how he rank-ordered social studies in preference to other subjects he regularly studied. Scores ranged from 1 (most preferred) to 6 (least preferred). 

4. Dimensions of teacher behavior: this instrument had been field tested prior to administration to the research sample. Results from the administration to the research sample were analyzed again to determine the consistency of the three factors which had emerged in the field test. The three factors solution remained the most meaningful one; pupil scores for each of the three dimensions of teacher behavior were the factor scores emanating from the factor analysis.

SIZE OF SAMPLE

Based on the participation z-scores, the five highest and the five lowest participators were chosen from each classroom. This resulted in the ten pupil sample from each room. Each of the three classes for a particular grade level were combined, thus giving thirty pupils for each of the three grades: fifteen high and fifteen low participators from each of the fourth, fifth, and sixth grades. The total sample consisted of ninety pupils: forty-five high and forty-five low participators.

ANALYSES RUN

Because of the three-category nature of the variable dealing with self-per-
ception of sociometric status, three chi-squares analyses were run using these
data. For the remainder of the data, three by two (grade level by participation
level) analyses of variance were the statistical tests employed. Because no
hypotheses were to be tested, two-tailed tests were used.

RESULTS AND INTERPRETATION

The first three tables present the results of the chi-square analyses. Row
and column totals do not equal the sample size of 90 because not every pupil chose
to select himself along the three sociometric dimensions. It is noted that each
of the results in the chi-square analyses is significant beyond the .05 level of
significance.

The results indicate that, of those pupils who selected themselves on the
sociometric questions, high participators placed themselves significantly more
often than the low participators on the positive rather than the negative dimensions
of scholarship, leadership, and popularity. Low participators distributed their
self choices equally between the positive and negative dimensions.

The last five tables present the results of the three by two analyses of
variance. These results indicate the following:

1. High participating pupils perceive their academic progress in social studies
to be a significantly higher standing than do the low participators. This finding
is significant beyond the .01 level.

2. High participators rate social studies significantly higher as a preferred
choice of subject to study than do the low participators. This finding is signifi-
cant beyond the .01 level.

3. With regard to perceptions of teacher behavior, high verbal participators
have dissimilar perceptions on only one of the three teacher dimensions under investigation, that of teacher stress on subject matter. High participators perceived the teacher as placing stress on the academics significantly more often than do the low participators. This finding is significant beyond the .05 level. Perceptions regarding frequency of teacher behaviors labelled as consideration and punitiveness were a function of grade level and not level of participation, and were significant beyond the .01 level.

DISCUSSION

One's concept of self is important in its own right as a child makes his way through school. The fact that these perceptions and attitudes about himself are related to his verbal participation in class lends additional importance to these concepts, because classroom participation is a function of class operation which is normally under the control of the teacher. The discussion by Jackson (1968) of "zestful participation and patience" as well as "attention and involvement" also suggest that participation is a indicator of a pupil's perceptions and attitudes. It is entirely possible that teachers--perhaps unwittingly--influence the self concepts of their pupils by the manner in which they mete out chances for oral participation.

Finally, the demonstration that self concept is related to participation on the one hand and to achievement in school on the other points to the possibility that self concept is a mediating variable between oral participation and learning outcome. Although one cannot infer causality as a result of the findings discussed above, these findings do seem to recommend that a next step might be one which explores the probability of a direct influence of participation on dimensions of self concept, as well as the direct influence of participation on one's achievement in school.
TABLE 1
CHI-SQUARE ANALYSIS
NOMINATIONS FOR SCHOLARSHIP

<table>
<thead>
<tr>
<th>Participation</th>
<th>Best</th>
<th>Poorest</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hi</td>
<td>17</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Lo</td>
<td>10</td>
<td>12</td>
<td>22</td>
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</tbody>
</table>

$X^2 = 5.1 \quad (p < .01)$
### Table 2

**Chi-Square Analysis**

**Nominations for Leadership**

<table>
<thead>
<tr>
<th>Participation</th>
<th>Best</th>
<th>Poor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hi</td>
<td>18</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>Lo</td>
<td>10</td>
<td>6</td>
<td>16</td>
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</table>

Self Nominations

\[ x^2 = 4.9 \quad (p < .01) \]
TABLE 3
CHI-SQUARE ANALYSIS
NOMINATIONS FOR POPULARITY

Self Nominations

<table>
<thead>
<tr>
<th>Participation</th>
<th>Best</th>
<th>Poorest</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hi</td>
<td>25</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>Lo</td>
<td>15</td>
<td>11</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>14</td>
<td>54</td>
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</table>

\[ X^2 = 5.5 \ (p < .01) \]
<table>
<thead>
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<th>F</th>
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</thead>
<tbody>
<tr>
<td>Grade level (A)</td>
<td>2</td>
<td>6.3</td>
<td>2.03</td>
</tr>
<tr>
<td>Participation level (B)</td>
<td>1</td>
<td>27.8</td>
<td>8.9**</td>
</tr>
<tr>
<td>A X B</td>
<td>2</td>
<td>7.7</td>
<td>2.5</td>
</tr>
<tr>
<td>Within</td>
<td>84</td>
<td>3.1</td>
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</tr>
</tbody>
</table>

**p < .01
TABLE 5
TWO-WAY ANALYSIS OF VARIANCE
DEPENDENT VARIABLE: PREFERENCE

<table>
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</tr>
</thead>
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<td>Grade Level (A)</td>
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<td>0.1</td>
</tr>
<tr>
<td>Participation level (B)</td>
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<td>10.6**</td>
</tr>
<tr>
<td>A X B</td>
<td>2</td>
<td>0.6</td>
<td>0.2</td>
</tr>
<tr>
<td>Within</td>
<td>84</td>
<td>2.9</td>
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**p < .01
TABLE 6
TWO-WAY ANALYSIS OF VARIANCE
DEPENDENT VARIABLE: TCHR CONSIDERATION

<table>
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<td>Participation level (B)</td>
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<td>173.4</td>
<td>------</td>
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<tr>
<td>A X B</td>
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<td>2.15</td>
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<tr>
<td>Within</td>
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<td>7399.7</td>
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**p < .01
### TABLE 7

**TWO-WAY ANALYSIS OF VARIANCE**

**DEPENDENT VARIABLE: STRESS ON ACADEMICS**

<table>
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<th>Source</th>
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<th>MS</th>
<th>F</th>
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</thead>
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<td>Grade level (A)</td>
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<td>2615.2</td>
<td>0.6</td>
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<tr>
<td>Participation level (B)</td>
<td>1</td>
<td>19625.6</td>
<td>4.25*</td>
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<tr>
<td>A X B</td>
<td>2</td>
<td>87.6</td>
<td>-----</td>
</tr>
<tr>
<td>Within</td>
<td>84</td>
<td>4601.1</td>
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</table>

*p < .05
TABLE 8
TWO-WAY ANALYSIS OF VARIANCE
DEPENDENT VARIABLE: TCHR PUNITIVENESS

<table>
<thead>
<tr>
<th>Source</th>
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<th>MS</th>
<th>F</th>
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</thead>
<tbody>
<tr>
<td>Grade level (A)</td>
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<td>30.067</td>
<td>4.98**</td>
</tr>
<tr>
<td>Participation level (B)</td>
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<td>------</td>
</tr>
<tr>
<td>A X B</td>
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<td>0.1</td>
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<td>Within</td>
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<td>6122.8</td>
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**p < .01
REFERENCES


