Findings of a study that compared the school climates of four Japanese high schools are presented in this paper. Eight factors that comprise the quality of school climate were examined—respect, trust, high morale, opportunities for input, continuous academic and social growth, cohesiveness, school renewal, and caring (Fox and others, 1974). A questionnaire to measure perceptions of school climate was administered to 362 high school students, 161 teachers, and 8 administrators in 4 high schools in Yamagata City, Yamagata Prefecture. The sample included a male academic, a female academic, a coeducational agricultural, and a coeducational commercial high school. Findings indicate that school climate was perceived differently across all four schools. Teachers and administrators perceived their school climate more favorably than did students in the same school. Of all the factors of school climate, students in all four schools perceived that school renewal occurred least often; teacher perceived that the opportunity for input occurred least often. Finally, students reported "caring" as one of the most positive factors in their school climates. Seven tables are included. (Contains 17 references.) (LMI)
A STUDY OF SCHOOL CLIMATE IN FOUR JAPANESE HIGH SCHOOLS

by

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INTRODUCTION

Over the past several years the United States has evidenced a great deal of interest in Japanese education because of the performance of Japanese students on international tests of academic achievement and because the Japanese educational system has been a significant influence on its economic success. It has a highly motivated and adaptable work force and boasts one of the highest literacy rates in the world (Christopher, 1983; White, 1987).

Despite the impressive academic achievement by Japanese students, the Japanese see problems with their system and have undertaken a serious reform effort. There have been problems of vandalism, dropouts, school violence, school phobia, and suicide among their students (Iga, 1986; Masler, 1987; Mata, 1986, Suguro, 1986). All these circumstances motivated the researcher to study school climate in Japanese high schools. What is the social, emotional, and psychological climate in Japanese high schools? School climate has been of interest to educators in the United States for over 20 years, and based on recommendations made by Japan’s National Council on Educational Reform (Mombusho, 1986), school climate needs to be studied in Japan too.

STATEMENT OF THE PROBLEM

The problem of a recent doctoral study was to compare school climate, as measured by the general climate factors on the CFK Ltd. School Climate Profile (CFK Profile) and the Student Attitude Profile (SAP) in four selected Japanese high schools (Hattler, 1991). The research questions studied were:
1. Are there differences in the eight general factors of climate and the composite climate score as perceived by students in four selected schools in Japan: male academic, female academic, coeducational agricultural, and coeducational commercial?

2. Are there differences in the eight general factors of climate and in the composite climate score as perceived by teachers/administrators in each of the four selected schools in Japan?

3. Are there differences in climate as perceived by students in the selected academic and vocational schools?

4. Are there differences in climate as perceived by teachers/administrators in the selected academic and vocational schools?

5. What is the rank order of the general factors of climate as perceived by students in the four schools?

6. What is the rank order of the general factors of climate perceived by teachers/administrators in these four high schools.

7. Do the students and teachers/administrators in each type of school perceive the relative occurrence of the general factors of climate similarly?

School climate as used in this study refers to the learning environment as perceived by students, teachers, and administrators in a school. Eight factors which, as defined by Fox et al. (1974), comprise the school's climate and determine its quality are respect, trust, high moral, opportunities for input, continuous academic and social growth, cohesiveness, school renewal and caring.
The findings of this study are delimited to the population and procedures inherent in this investigation. The populations from which the samples were taken consisted of students, teachers and administrators in Yamagata Prefecture in Japan.

The sample was not truly representative, for it was a selected sample of schools in Yamagata Prefecture. Only four high schools were used which represented different types of schools. These schools included a male academic, a female academic, a coeducational agricultural, and a coeducational commercial high school. Seniors were surveyed in the male and female academic high schools, and in the coeducational commercial high school. In the coeducational agricultural high school, sophomores and juniors were surveyed.

A basic assumption was that the translated and adapted instruments would provide valid data from Japanese schools. Also, it was assumed that students, teachers, and administrators would cooperate by providing honest and objective answers to the questions on the climate instruments.

**REVIEW OF THE LITERATURE**

A review of the literature and recent research focused upon the historical, societal and cultural influences on Japanese education and achievement. In Japanese education, it was found that: 1) Environment and early training are very important in educational success (Vogel, 1979). 2) With true effort the student can succeed, that the key to success is persistence (Shimahara, 1986; Singleton, 1989). 3) Parents are committed to a child's educational experience. Mothers are particularly involved and assume the responsibility for their children's academic achievement (Simons, 1987; White, 1987). 4) Many students attend after school sessions for
individualized remedial or accelerated help or to prepare for high school or college entrance examinations (US. Department of Education, 1987). 5) Japanese schools are demanding. The school calendar is longer than the American calendar and the curriculum is more challenging (Rohlen, 1983). 6) Japanese teachers enjoy prestige and security in their work (Christopher, 1983). 7) Entry into high school is a critical juncture in a student's life (Rohlen, 1983). 8) Harmony (wa), group orientation, and concentration are viewed as central to student achievement and success in other spheres of activity. These unique characteristics provided a background for a better understanding of secondary high schools in Japan.

In the review of Japanese high schools, these facts emerged: 1) High schools in Japan are ranked according to academic quality. The hierarchy of schools is common knowledge in a community and rarely changes through the years (Rohlen, 1983). 2) An entrance examination determines which school a student will attend. 3) Curriculum is uniform throughout Japanese schools and is prescribed by the Ministry of Education (US. Department of Education, 1987). 4) Japanese girls do not have the same educational opportunities that boys do (Christopher, 1983; Rohlen, 1983).

The review of literature cited dissatisfaction with the educational system expressed by various sectors in Japanese society. 1) The strong and powerful teachers' union advocates reform in content, better atmosphere, and less pressure to teach a curriculum geared to entrance examinations (White, 1987). 2) There are complaints by many in Japanese society, including businessmen and professionals, that the rigidity imposed by and the emphasis on entrance examinations result in rote learning and "teaching to the test" rather than instilling in students a love of learning (Ranbom,
Parents and teachers want less pressure on the students, especially that caused by *shiken jigoku*, "examination hell." 4) Many of the dissatisfactions with education in Japan relate to the emotional or psychological well-being of students and teachers/administrators.

Finally, the review sought to explore the area of school climate. In studies in the United States, academic achievement by students has shown to be strongest when the climate of the school was positive. Leading conceptual frameworks and the factors that have been found to be important were described. Instruments for climate assessment, including the instruments which will be used to assess climate in this study, were discussed (Fox, 1974; Van Howe, 1980). This review provided a basis for research on climate in selected secondary schools in Japan which may offer a new and insightful perspective of an important aspect of Japan's educational system.

**DESIGN OF THE STUDY**

The target population for the study included nine classrooms in four public high schools (male academic, female academic, coeducational agricultural and coeducational commercial) in Yamagata City, Yamagata Prefecture, Japan. Yamagata is located 300 miles northwest of Tokyo and is the seat of the regional government with a population of 250,000.

The populations to be used in the study were teachers, administrators, and the sophomore, juniors, and senior students from four types of high schools in Yamagata Prefecture. One school of each type was chosen for the study. The sample of 362 students was drawn from intact classrooms with approximately 90 students from each type of high school. There were nine classrooms from the four high schools. While the selection of classrooms was made by the principal at each school, the researcher requested that it be a
random sample of the available classrooms. All of the teachers (161) who were present on the day the instrument was completed plus eight administrators participated in the study. The four schools used in the study were:

1. Minami-Ko (South High School) was a male academic high school with 976 students. Over 90% of the students begin college and/or university following graduation. The school's all male faculty of 46 offered two courses of study: 1) scientific studies and 2) literary studies. There were two classrooms of students (one with 43 students and the other with 40 students), 42 teachers, and two administrators who participated in the study.

2. Nishi-Ko (West High School) was a female academic high school with 945 students with a faculty of 29 women and 13 men who taught two programs of study: 1) mathematics, science and law and 2) economics and literature. The programs were college-preparatory with about 45% of the students beginning a four-year college and/or university following graduation and another 25% attending a junior college. Of the remaining 30%, about 10% begin work and the other 20% continue to study to pass the examination for a specific college. There were two classrooms of students (one with 46 students and the other with 40 students), 35 teachers and two administrators who participated in the study.

3. Kaminoyama No-Gyo (Agricultural High School) was an agricultural high school with a faculty of 48 who offered its 313 boys and 173 girls five programs: gardening, agriculture, horticulture, home living and liberal studies. After graduation, 70% of the students work, about 3-5% begin
college, about 10% begin junior college, and the remainder continue study in another school or at home in preparation for a college examination. Here, there were three classrooms of students (one with 35 students, a second with 22 students and the third with 43 students), 37 teachers and two administrators who participated in the study.

4. Yamagata Sho-Gyo (Yamagata Commercial High School) was a commercial high school with 614 girls and 592 boys. All the juniors and seniors were enrolled in a commercial program; however, the sophomores were divided into commercial and economic courses which were college-preparatory. Around 70% of the students begin work immediately after graduation, approximately 10-15% enter a college or university, and the remaining 10-15% begin a junior college. There were two classrooms of students (one with 44 students and the other with 41 students), 49 teachers, and two administrators who participated in the study.

THE INSTRUMENTS

The research instruments used were the CFK Ltd. School Climate Profile (CFK Profile) for measuring teachers' and administrators' perceptions of climate, the Student Attitude Profile (SAP) for measuring students' perceptions of climate and a researcher developed interview schedule. The CFK Profile measures the extent to which a school has a positive climate.

The SAP contains items which measure students' perceptions of their school environment in terms which are readily understandable to them. The items were based on the indicators and pool of items from the CFK Profile. The developer of the SAP found that it was reliable (r=.98) and valid (Van Howe, p. 95).
Both of these instruments have four sections, each dealing with a different aspect of climate. In the instruments, the researcher used only the first section, which measures the eight general climate factors. Questions were answered on a four-point rating scale from "almost always" to "almost never."

Because the translated and adapted instruments were originally written in English for use in American schools, it was important that they be evaluated by persons who were bilingual in Japanese and English. The persons chosen were not only excellent linguists, but they also were knowledgeable educators who could judge the feasibility and appropriateness of the surveys for use in Japanese high schools.

The panel of translators were asked to evaluate the instruments in terms of their appropriateness with respect to Japanese education, values and culture as well as the instruments' ability to provide accurate responses to the questions posed by the study to the Japanese. The instruments were translated into Japanese by some of the panel and then back-translated into English by others to verify the accuracy of the translations. Appropriate suggestions and improvements in Chinese characters used in the Japanese language and wording were incorporated into the final design of the Japanese version of the surveys. All of the Japanese educators assured the researcher that the same factors and principles of climate do exist in Japan.

The Interviews

The data used to answer the research questions in the study were obtained through self-report scales. In addition to these instruments, an interview schedule was developed for a randomly selected subsample of 40 students and 40 teachers/administrators. Data were summarized from these
follow-up interviews. The questions were open-ended and allowed the interviewee total freedom of response.

THE PILOT STUDY

In addition to the panel of experts' assistance in translating, back-translating and adapting the instruments for use in Japan, the survey was pilot tested at a private school, Johoku Girls' Senior High School, in Yamagata City, Japan. The purpose of the pilot study was to make sure that the directions were clear and that the Japanese would be comfortable in completing such an instrument. Forty-six students and 10 teachers were randomly selected at Johoku Girls' Senior High School and asked to complete the instrument and make suggestions for improvements. Their suggestions and comments were considered by the panel of experts and incorporated, when appropriate, into the final design of the instruments.

DATA GATHERING PROCEDURES

This study utilized a survey methodology to examine climate in four selected public high schools. The instruments included an explanation of the purpose of the data and an assurance of the respondents' anonymity. A Yamagata Board of Education consultant assisted the researcher in gaining access to schools in Yamagata City. Two academic and two vocational high schools were the focus of the study.

In each school, approximately 90 students were surveyed for the study. Though the principal made the selection, he was asked to choose randomly from the junior and senior classes. The researcher was introduced to the class as a Colorado educator interested in learning about Japanese high schools, specifically how the students felt about the emotional and social environment, the climate of the school. The Student Attitude Profile
instruments were handed out to the students. The instruments included a brief explanation of how the data might be helpful to their school and to the researcher. It stated that participation was voluntary and that their responses would be anonymous. As much time as was needed was allowed to answer the questions; however, it rarely exceeded 20 minutes. Ten students in each school were randomly chosen and asked to be interviewed. All agreed and follow-up interviews were conducted at the end of the school day.

The same procedures used with the students were followed with the teachers and administrators in a faculty meeting the next school day; however, they were given the CFK Profile. Nine teachers and one administrator at each school were randomly chosen to be interviewed. All agreed and follow-up interviews were conducted following the faculty meeting.

The data were statistically analyzed using the Statistical Package for the Social Sciences. A one way analysis of variance (ANOVA) was conducted on each of the eight general factors of school climate and the composite score to determine if there were significant differences (p< .05) in students' perceptions of climate between schools. Two types of post hoc comparisons, using the Scheffe' procedures, were done when the ANOVAs were significant.

The means for the eight general factors of climate were ranked by type of school for students and teachers/administrators in order to determine the relative occurrence of their perceptions of climate factors within each of the four schools. The degree of similarity among students' perceptions across schools was described by means of Spearman rank correlations as was the degree of similarity among teachers'/administrators' perceptions across
schools. Additionally, the Spearman rank correlational test was used to describe the degree of similarity among students' and teachers'/administrators' perceptions of relative occurrence of climate factors within each type of school.

**ANALYSIS OF THE DATA**

The problem of the study was to compare school climate, as measured by the general climate factors on the CFK Profile and the SAP in four selected high schools in Japan. The *Statistical Package for the Social Sciences (SPSS)* was used in the data analyses. The analyses were based on the seven research questions of the study.

**Research Question 1**

Are there differences in the eight general factors of climate and in the composite score as perceived by students in four selected schools in Japan. To compare the differences in school climate as perceived by students in the four selected high schools, a one way analysis of variance (ANOVA) was conducted on each of the eight general factors of school climate and the composite score. For each of the tests, the F ratio was based on three and 358 degrees of freedom. There were significant differences at the .05 level among the groups on all factors of school climate and on the composite scores. Post hoc tests, using the Scheffe' procedure, were then computed to determine where the significances occurred between schools. Table 1 (on page 23) summarizes the comparisons of how the school climate factors were perceived by students on the SAP in each of the four types of schools. In other words, which schools were significantly different with respect to each of the climate factors? In Table 1, the asterisks indicate a statistically significant
difference between the means of one school and another for each of the factors and for the composite scores of school climate.

The analysis found that the students in the male academic school (School 1) had significantly higher means than those in the coeducational agricultural school (School 3) for all factors and for the composite score. The means for the female academic (School 2) and the coeducational commercial (School 4) were significantly different only on the factor of continuous academic and social growth, with the female academic students perceiving continuous academic and social growth as occurring more often.

The data indicated that school climate was perceived by the students in the coeducational agricultural high school to be less positive than in the three other schools. The composite mean scores differed significantly from the means in all three other schools; however, an examination of the means indicated that the difference between the coeducational commercial high school students' mean scores and the coeducational agricultural high school students' mean scores were not as large.

**Research Question 2**

Are there differences in the eight general factors of climate and in the climate score as perceived by teachers/administrators in the four selected high schools in Japan? To compare the difference in school climate as perceived by teachers/administrators in the schools, ANOVAs were conducted on the general factors and the composite of school climates determine if a statistical difference existed among schools for teachers'/administrators' responses to the **CFK Profile**. For each of the tests, the F ratio was based on three and 168 degrees of freedom. The data indicated that statistically significant differences were found among schools for the factors of trust, high morale, continuous
academic and social growth and cohesiveness. Statistically significant differences were not found among schools for the factors of respect, opportunity for input, school renewal and caring. Post hoc tests, using the Scheffe' procedure, were then carried out to determine where the significance occurred between schools.

Table 2 (on page 24) summarizes the post hoc comparisons of the school climate factor means for teacher/administrators on the across the four types of schools. An asterisk indicates that the means for the schools were significantly different.

The male academic and female academic school teachers/administrators on the average perceived a more positive school climate in their schools than did the teachers/administrators in the coeducational agricultural school. In the comparisons of the teachers'/administrators' responses of climate perceptions at the female academic school (School 2) and the coeducational commercial school (School 4), significant differences in the factors of trust, high morale and continuous academic and social growth were found. The female academic school teachers/administrators had mean scores that were significantly higher than the mean scores for the coeducational commercial school teachers/administrators, indicating that the female academic school teachers/administrators perceived climate (as measured by these factors) in their school as more positive than did the teachers/administrators in the coeducational commercial school.

The perceptions of the teachers/administrators in the coeducational agricultural school (School 3) and the coeducational commercial school (School 4) were more similar than different. There was a significant
difference only on the factor of high morale, with the mean for the coeducational commercial school being significantly higher than the mean for the coeducational/agricultural school. There were no statistically significant differences in any of the school climate factors between the male and female academic schools (Schools 1 and 2); thus it was concluded that the male and female academic teachers/administrators perceived the climates in their schools similarly. Both the male and female academic school teachers/administrators perceived their schools as having a positive climate.

On the factors of trust, high morale, continuous academic and social growth and cohesiveness, the male academic school teachers/administrators had significantly higher means than were the means for the teachers/administrators in the coeducational agricultural school and the coeducational commercial school. On these same factors (trust, high morale, continuous academic and social growth and cohesiveness), the means for the female academic schools were significantly higher than those for the coeducational agricultural school.

Research Question 3

Are there differences in climate as perceived by students in the academic and vocational high schools? To examine differences in school climate as perceived by students in academic versus vocational high schools, the means for the male academic and female academic schools were collapsed and the means for the coeducational agricultural and the coeducational commercial schools were collapsed. This was done in order to compare two types of high schools in Japan, academic and vocational. The means for the academic type of school were derived by averaging the general climate factor and the composite means of the male and female academic schools; likewise,
this procedure was used to determine the means for the vocational type of school.

Complex Scheffe' post hoc comparisons were conducted on the general factors of school climate and composite to examine whether the averages for academic and vocational high schools differed significantly. Table 3 (on page 25) shows the students' perceptions of school climate factors and composite means for the academic and vocational schools and the results of the Scheffe' post hoc comparisons.

In all factors except caring, the mean for the academic schools was significantly higher than the mean for the vocational schools for that factor, thus indicating that the academic school students perceived a more positive climate in their schools than did the students in the vocational schools. These findings were consistent with those of Research Question 1. The largest differences were in the factors of continuous academic and social growth and high morale.

Research Question 4

Are there differences in school climate as perceived by teachers/administrators in the academic and vocational high schools? To compare differences in school climate as perceived by 161 teachers and 8 administrators in academic and vocational high schools, the means for the male and female academic schools were collapsed and the means for the coeducational agricultural and coeducational commercial schools were collapsed. This was done in order to compare two types of high schools in Japan, academic and vocational. The means for the academic type of school were derived by averaging the general climate factor and the composite
means for the male and female academic schools, and the same procedure was used to determine the means for the vocational type of schools.

Complex Scheffe' post hoc comparisons were conducted on the general factors of school climate and composite to examine whether the averages for academic and vocational schools differed significantly. Table 4 (on page 26) shows the teacher'/administrators' perceptions of school climate factors and composite means for the academic and vocational schools plus the result of the Scheffe' post hoc comparison.

The data indicated that for the factors of trust, morale, continuous academic and social growth and cohesiveness, there were statistically significant differences in teachers'/administrators' perceptions of climate in the academic and vocational schools with the teachers/administrators in the academic schools perceiving their schools as having a more positive climate. There were no significant differences in teacher'/administrators' perceptions for the factors of respect, opportunities for input, school renewal and caring in the academic and vocational schools.

Research Question 5

What is the rank order of the general factors of school climate as perceived by students in these four high schools? The means of the general factors of school climate as perceived by students were rank-ordered from highest to lowest for each of the four high schools. The higher the mean, the more frequently a factor was perceived to occur in the school, indicating a more positive climate. Thus, the factor occurring most often on the average, received a rank of one.

The data indicated that the factor of continuous academic and social growth ranked number one in both the male and female academic high
School Climate in Japan

18

schools and ranked second in the coeducational agricultural school. In every school, school renewal ranked last. Input received consistently low ranking. Caring was ranked first by students in both the coeducational agricultural and coeducational commercial high schools; it was ranked second by students in the female academic school and third by the students in the male academic school. Respect had the widest range of rank order distributions.

To determine the degree of agreement between schools for the ranks of eight factors, Spearman Rank-Order Correlations were calculated and are reported in Table 5. Table 5 (on page 27) shows that the male academic, female academic, and agricultural school students perceived the climates of their schools similarly when the ranks of the factors were considered. The degree of agreement was lower for each of these compared to the commercial school students' rankings. The factors of continuous academic and social growth and respect were perceived quite differently in the commercial school.

Research Question 6

What is the rank order of the general factors of school climate as perceived by the teachers/administrators in these four selected high schools in Japan? The factor of respect received the top ranking by the teachers/administrators in the male academic high school, in the coeducational agricultural school and in the coeducational commercial school, but respect ranked second in the female academic school. In the same three schools which ranked respect first, trust ranked last. In the female academic school, trust ranked next to last. Opportunity for input received consistently low rankings. Caring received generally high rankings in the female academic, coeducational agricultural and coeducational commercial high schools.
The Spearman Rank-Order Correlations for the rankings of the teachers'/administrators' means are presented in Table 6 (on page 28). Unlike the student results, there was stronger agreement between the commercial school teachers' rankings and those of the other three schools. It was also interesting that the highest correlation for students (female academic and coeducational agricultural) was the lowest for the teachers.

Research Question 7

Do students and teachers/administrators in each type of school perceive the relative occurrence of the general factors of climate similarly? The two instruments used in this study had a different number of items for the factors of climate. The CFK Profile had five items under each general climate factor while the SAP had three items under each general climate factor. Thus, a direct comparison of responses by students (SAP) and responses by teachers/administrators (CFK Profile) was not possible. However, a rank ordering of the perceptions of the relative occurrence of climate by students' and teachers'/administrators' means was possible. For each type of school, a Spearman Rank-Order Correlation was computed to determine the degree of agreement between the ordering of the factors for students and teachers/administrators. Table 7 (on page 29) shows the low degree of agreement in each school, indicating that regardless of type of school, the perceptions of the students and teachers/administrators were not similar with respect to the relative occurrence of the eight factors.

Follow-Up Interviews

In addition to the self-report data from the instruments, data were obtained from brief follow-up interviews. Individual interviews were
conducted with a subsample of 40 students, 36 teachers and four administrators. The purpose of the interviews were: 1) to determine if the students, teachers and administrators perceived that there were other school climate factors that had not been covered in the instruments, and 2) to determine what students, teachers and administrators perceived as the best thing which contributed to good school climate.

Initial questions in the interview were concerned with biographical information related to the interviewee. They were asked to share their impressions and thoughts about the instruments, whether any specific questions were unclear, and if they thought the instruments were appropriate for the Japanese high schools. Students, teachers, and administrators all understood the instruments found them usable and appropriate. In addition, the students and teachers/administrators were asked, "Is there something which you think contributes to good school climate that was not asked?" The things mentioned by the respondents were interpersonal relationships, role of the school in the community, curriculum, and physical plant and facilities.

They then were asked a final question, "What is the best thing in your school that contributes to good school climate?" The things cited were: student characteristics, accepting atmosphere, freedom, facility/physical plant, strong extra-curricular program, and interpersonal relationships.

CONCLUSIONS

From the findings, several conclusions were drawn. The following are the major conclusions of the study.

1. School climate, as perceived by students and teachers/administrators in Japan, was different across the four selected public high schools. A
A singular description of the type of climate that exists in Japanese schools would not be accurate.

2. Students and teachers/administrators differed in their perceptions of the climate in the same school. Could a school possess more than one climate? School climate varies depending on the perspective of the person experiencing it. While teachers/administrators may perceive the climate to be positive, students may not.

3. Teachers/administrators perceive the school climate more favorably than do the students in the same school.

4. Students and teachers/administrators reported the Japanese versions of the Student Attitude Profile and the CFK Ltd. School Climate Profile were understood and covered the major aspects of climate in their schools. The instruments are usable in future studies on climate in Japanese schools.

5. In all four schools, students perceived school renewal to occur least often of all the factors of climate. Since Japanese high schools follow national standardized curriculum, syllabi, and textbooks, there was little opportunity for school renewal.

6. In all four schools, students and teachers/administrators perceived the climate factor of opportunity for input to occur much less frequently than other factors. This probably was a result of the Japanese Ministry of Education's strong centralized approach which mandates curriculum.

7. Results of the Student Attitude Profile (SAP) showed that caring was perceived by students in all four schools as one of the most positive factors.
of climate. This shows that students feel a part of the school and are cared for by other students and teachers/administrators.

8. Academic school climate was perceived more positively than school climate in vocational high schools by both students and teachers/administrators.
Table 1
Comparison of School Climate Factors for *Student Attitude Profile* Using the Scheffe’ Procedure

<table>
<thead>
<tr>
<th>Factor</th>
<th>Schools 1 &amp; 2</th>
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*p < .05

*School 1 = Male Academic
School 2 = Female Academic
School 3 = Coeducational Agricultural
School 4 = Coeducational Commercial*
Table 2

Comparison of School Climate Factors from Responses of Teachers/Administrators on the CFK Ltd. School Climate Profile using the Scheffe' procedure.

<table>
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<tr>
<th>Factor</th>
<th>Schools 1 &amp; 2</th>
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<tr>
<td>Growth</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Cohesiveness</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Renewal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caring</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

*p < .05

School 1 = Male Academic
School 2 = Female Academic
School 3 = Coeducational Agricultural
School 4 = Coeducational Commercial
Table 3

Student Means and Scheffe' Post Hoc Comparisons of the Academic and Vocational Schools' Means.

<table>
<thead>
<tr>
<th>Factor</th>
<th>ACADEMIC (N=179) Mean</th>
<th>VOCATIONAL (N=183) Mean</th>
<th>Scheffe' result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respect</td>
<td>2.65</td>
<td>2.43</td>
<td>*</td>
</tr>
<tr>
<td>Trust</td>
<td>2.82</td>
<td>2.52</td>
<td>*</td>
</tr>
<tr>
<td>High Morale</td>
<td>2.86</td>
<td>2.44</td>
<td>*</td>
</tr>
<tr>
<td>Input</td>
<td>2.41</td>
<td>2.20</td>
<td>*</td>
</tr>
<tr>
<td>Acad. &amp; Social Growth</td>
<td>3.10</td>
<td>2.44</td>
<td>*</td>
</tr>
<tr>
<td>Cohesiveness</td>
<td>2.62</td>
<td>2.27</td>
<td>*</td>
</tr>
<tr>
<td>Renewal</td>
<td>2.19</td>
<td>1.93</td>
<td>*</td>
</tr>
<tr>
<td>Caring</td>
<td>2.87</td>
<td>2.75</td>
<td>n.s.</td>
</tr>
<tr>
<td>Composite</td>
<td>2.69</td>
<td>2.37</td>
<td>*</td>
</tr>
</tbody>
</table>

* p < .05
Table 4

Teachers' / Administrators' Means and Scheffe' Post Hoc Comparisons of the Academic and Vocational Schools' Means.

<table>
<thead>
<tr>
<th>Factor</th>
<th>ACADEMIC (N=81) Mean</th>
<th>VOCATIONAL (N=88) Mean</th>
<th>Scheffe' result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respect</td>
<td>3.49</td>
<td>3.43</td>
<td>n.s.</td>
</tr>
<tr>
<td>Trust</td>
<td>2.97</td>
<td>2.56</td>
<td>*</td>
</tr>
<tr>
<td>Morale</td>
<td>3.55</td>
<td>2.90</td>
<td>*</td>
</tr>
<tr>
<td>Input</td>
<td>2.90</td>
<td>2.78</td>
<td>n.s.</td>
</tr>
<tr>
<td>Growth</td>
<td>3.10</td>
<td>2.60</td>
<td>*</td>
</tr>
<tr>
<td>Cohesiveness</td>
<td>3.31</td>
<td>2.77</td>
<td>*</td>
</tr>
<tr>
<td>Renewal</td>
<td>3.17</td>
<td>2.95</td>
<td>n.s.</td>
</tr>
<tr>
<td>Caring</td>
<td>3.27</td>
<td>3.04</td>
<td>n.s.</td>
</tr>
<tr>
<td>Composite</td>
<td>3.19</td>
<td>2.84</td>
<td>*</td>
</tr>
</tbody>
</table>

* p < .05
Table 5
Spearman Rank-Order Correlations of Factor Ranks for Students' Perceptions of Climate.

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Male Academic</th>
<th>Female Academic</th>
<th>Coed Agricultural</th>
<th>Coed Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Academic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Academic</td>
<td>.86*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coed Agricultural</td>
<td>.83*</td>
<td>.93*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coed Commercial</td>
<td>.36</td>
<td>.62</td>
<td>.64</td>
<td></td>
</tr>
</tbody>
</table>

*p<.05
Table 6

Spearman Rank Order Correlations of Factor Ranks for Teachers'/Administrators' Perceptions of Climate.

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Male Academic</th>
<th>Female Academic</th>
<th>Coed Agricultural</th>
<th>Coed Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Academic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Academic</td>
<td>.83*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coed Agricultural</td>
<td>.76*</td>
<td>.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coed Commercial</td>
<td>.79*</td>
<td>.71*</td>
<td>.91*</td>
<td></td>
</tr>
</tbody>
</table>

*p<.05
Table 7

Spearman Rank-Order Correlations Comparing Student and Teacher/Administrator Ranks.

<table>
<thead>
<tr>
<th>School</th>
<th>Student &amp; Tchr./Admin. Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Academic</td>
<td>-0.21</td>
</tr>
<tr>
<td>Female Academic</td>
<td>0.29</td>
</tr>
<tr>
<td>Coeducational Agricultural</td>
<td>0.17</td>
</tr>
<tr>
<td>Coeducational Commercial</td>
<td>-0.05</td>
</tr>
</tbody>
</table>
REFERENCES


