# ACHIEVEMENT LEVELS OF SAMOAN STUDENTS IN HAWAII PUBLIC SCHOOLS

CORELLATED WITH THE NUMBER OF YEARS OF INSTRUCTION IN THE EDUCATIONAL TELEVISION PROJECT IN AMERICAN SAMOA

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George W. Hastings

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# Chapter 1 BACKGROUND INFORMATION

Universal education for the children of American Samoa is a new concept. For more than sixty years, few children in American Samoa had the opportunity to pursue an education beyond the elementary level. The quality of education offered those children who did attend school at any level was below the academic standard of the average school district in the United States.

As late as I960, less than one-third of Samoan children of high school age were attending school, and the vast majority of classroom teachers at all grade levels had no more than the equivalent of an eighth grade education. [1-] Although it was required that most subjects be taught in the English language, many of the teachers were not fluent in English themselves.

Perhaps the low academic standard and the limited availability of educational opportunity were relatively insignificant for many of those years, for the Samoan people relied on a subsistence economy for the most part, and had only limited contact with the rest of the world. The type of economy demanded practical skills applicable to fishing, taro and banana growing, and handicrafts rather than an advanced academic education. With the coming of the jet age however, the citizens of American Samoa have suddenly had the outside world thrust upon them, and in ever-increasing numbers they are emigrating to Hawaii, California, and other parts of the world. Today there are at least as many expatriate

[1-] Karola Craib, "Fausia Se Samoa Fou: Building A New Samoa, ETV In American Samoa" (Pago Pago: Office of the Governor, 1964), p. 3 (Mimeographed. )

Samoans as there are residents of the five islands of American Samoa.

For those who leave Samoa, geographical mobility has not, in most cases, been accompanied by social, financial, or academic mobility. For the vast majority, the limited duration and quality of education they received in Samoa has placed them at a distinct disadvantage. Forced to compete in the job market with others more qualified than they in language competency, general knowledge, and modern job skills, Samoans outside Samoa have often been relegated to menial jobs, low-income areas, and welfare rolls, and all too frequently have achieved the status of second-class citizens. The major barrier to upward mobility has been a lack of quality education in general, and a lack of proficiency in the English language in particular.

W. L. Gragg, in reporting on a study of dropouts noted certain factors associated with early school withdrawal. Among these were:

(1) Retardation in school amounting to two or more grades,

(2) An intelligence, aptitude, or achievement score on standardized tests that placed the pupil in the lowest decile among pupils tested, and

(3) Low achievement in reading as measured by standardized test. Samoan children entering public schools in Hawaii and other states in the past have all too often fallen into the well-documented pattern of low test-scores, low achievement levels, and high-dropout rates. [2-]

In the early 1960's the new governor of American Samoa, H. Rex Lee, wrestled with the problem of upgrading the quality of education

[2-] W. L. Gragg, "School Leavers: Can They Be Spotted In Jr. High?", Clearing House , Vol. 25 (Oct. 1958).

in the territory. Few alternatives were open to him. Retraining the teachers would be a long-range project requiring many years, and the immediate need was obvious. Replacing all the Samoan teachers with new, well-trained mainland teachers and having curriculum specialist develop a curriculum geared to the Samoan child's background was a possibility, but the political arguments against this solution were many. It would have been extremely costly, for it would have meant building more than three-hundred homes for the stateside personnel to be imported, and would have obligated the government to pay literally millions of dollars over the years in transportation costs alone. Also, at a point where Lee needed all the local political support he could muster, such a decision would have caused much ill-will toward him on the part of the Samoan population,
since such a plan would have meant the firing of close to three-hundred Samoan school teachers.

Governor Lee convinced Congress of the necessity for appropriating $40, 000 for a feasibility study of an educational television system in which the core of all instruction would be presented by way of televised lessons. The study, carried out by the National Association of Educational Broadcasters, resulted in a proposal which had advantages over other alternatives for the rapid upgrading of the quality of education in American Samoa:

(1) A relatively small staff of highly trained, qualified teachers could bring top-quality instruction to every child, even in the most remote villages.

(2) After a relatively high initial investment to establish the technical facilities an build a substantial library of video-tapes and visual material, operating costs would be relatively low.

(3) Samoan teachers could be retained to conduct important classroom preparation and follow-up instruction from printed lesson plans for telelessons in each subject while receiving on-the-job training in good techniques of teaching. They would also increase their knowledge of subject matter and gain proficiency in English by learning from the televised instruction along with their students.

Congress approved $1, 583, 000 for the building of a three channel trial ETV system at the elementary level, and the first instructional telecast was broadcast in December, 1964. In the years following, the system was expanded from three channels to six channels, and from three elementary levels to six elementary and four high school levels.

Students who have had exposure to televised instruction in Samoa since its inception have had over seven years of intensive practice in English as a second language. English sound-drills and at least two fifteen minute drill sessions in oral English speech patterns and structures have been a part of every school day. In addition, all other subjects taught in English have been closely coordinated with the formal oral English instruction in order to make certain that they utilize the same vocabulary and structural patterns that the students have been introduced to; in effect, every lesson regardless of subject matter is a lesson in English.

# Chapter 2

## STATEMENT OF THE PROBLEM

Samoans educated under the old school system in the past have frequently found themselves at a distinct disadvantage when they have transferred from Samoan schools to public schools in Hawaii and other states. Their largest handicap has been a lack of fluency in the English language, since fluency in a language is a prerequisite for ease of learning subject matter taught in that language.

Samoan students are of the same intelligence range as any other diverse group of people one could assemble, yet in a stateside public school situation they have been faced with very real learning disabilities, brought on by trying to learn subject matter in a language other than their mother-tongue. These learning disabilities resulted from the inability to interpret oral statements or to reproduce their own ideas in accepted speech patterns. Reading confusion was often the result of confusion over pronoun usage, figurative language, expanded sentences, and punctuation.

In research done by Zedler on the effectiveness of language therapy in improving the academic achievement of neurologically handicapped students, it was reported that difficulty often resulted from the very same types of disabilities that were faced by Samoan transfer students. Zedler reported that language therapy, practice in spoken and written English

language patterns and structures resulted in improved academic achievement. [3-]

If such language therapy had a measurable effect in improving the academic achievement of neurologically handicapped students, surely similar language therapy must have had an effect on normal Samoan students whose only handicap was a lack of fluency in the English language.

The new instructional system in American Samoa was designed specifically to provide intensive instruction and practice in interpreting oral statements, reproducing thoughts in accepted speech patterns, drill in pronoun usage, figurative language, expanded sentences, punctuation, and both written and spoken English language patterns and structures.

The continuing increase in the ease and facility with which Samoan students are using the English language is readily apparent to anyone who has had the opportunity to observe them over any great length of time. Testing programs carried out in American Samoa show that there has been marked improvement in English fluency since the implementation of the new instructional system there. This increased proficiency should have an effect on the general level of scholastic achievement of Samoan

[3-] Empress Y. Zedler, "Language Therapy For Scholastic Underachievers ", ERIC Document #ED 020 096, (1968).

students who transfer from schools in American Samoa to public schools in Hawaii.

One measure of academic achievement is report card grades. Although not as definitive nor as exacting as scores on standardized tests, reported subject-grades are generally assumed to be an indication of a student's general level of academic achievement. If all reported grades are averaged to obtain a cumulative grade average, one can get a rough indication of a student's general academic achievement.

If the cooperative system of instruction making maximum use of television has improved the over-all quality of the education received by students in American Samoa and has increased their fluency in English, then this should have a positive effect on the scholastic achievement of those Samoan students who transfer to public schools in Hawaii. If one accepts the basic assumption that reported subject-grades are a valid indication of general academic achievement, then one could obtain an indication of the effectiveness of the Samoan educational system by an examination of the cumulative grade averages of those students who have transferred to public schools in the State of Hawaii after being exposed to the new system of instruction in Samoa.

## HYPOTHESIS

The system of instruction in American Samoa which makes maximum use of television has been effective in increasing the English proficiency and the general potential for academic achievement of Samoan students. This should be reflected in a rising curve in the cumulative grade averages of Samoan students who have transferred to public schools in Hawaii. The greater the number of years a student has spent in Samoa's new educational system before transferring to Hawaii, the higher the cumulative grade average should be for school work completed in the public schools of Hawaii.

# Chapter 3
## REVIEW OF RELATED LITERATURE

Experimental examination of early efforts in teaching via television revealed that all too often it was little more than straight verbal teaching which failed to take advantage of the strengths of the medium. During the first decade of televised instruction following the Federal Communications Commission's action to set aside certain TV channels for educational use, scores of research reports indicated that there was no significant difference between televised instruction and conventional teaching. Considering the lack of careful planning and unimaginative production which more or less characterized this period, it is a wonder that ETV was not shown to be less effective than conventional methods! [25]

To date, over two-thousand research investigations have been made concerning how the medium of television can best be used in learning situations. A large number of these investigations have shown no significant differences between televised instruction and conventional classroom instruction. However, research efforts have indicated that television has certain characteristics which make it superior to conventional teaching in some situations.

Peerson conducted an experiment in Alabama which investigated the effectiveness of using a state ETV network to reduce adult illiteracy. Six hundred adult students with an average of less than second grade reading ability viewed televised instruction in reading three times weekly for thirty-two weeks. They met in supervised groups to view the telelessons, and

followed each telecast with use of related materials which were supplied to them. By the end of the series, they averaged more than a year's growth in reading ability. [17] The results of this experiment had implications for effective televised instruction which could be broadcast to a very large number of students over a widespread area, such as the scattered islands and remote villages of American Samoa.

In 1962-1963 an extensive experiment was carried out in Japan to determine the effect of instructional television on children in isolated villages. Primary school children from the more remote villages in Japan had scored considerably lower than the national average on national achievement tests. In the experiment these children were pre-tested and grouped by uniform intelligence and achievement levels. The experimental group viewed televised instruction, and utilized the same texts and materials as the control group, which had no TV teaching. On intelligence and science achievement tests an the end of the one-year experimental period, the experimental group scored higher than the control group. The experiment concluded that televised instruction was particularly effective in presenting subject matter foreign to children
in remote areas, and that proper use of ETV could result in improved memory and alertness. [23]

Frazier and Evans tested the effectiveness of television programs designed to contribute to both teacher and pupil learning in Ohio. One-

hundred-fifty-one classes of third and fourth graders viewed a series of ten half-hour telecasts dealing with science at two-week intervals.

Although there was no significant difference between control and experimental groups given at the end of this study, it was found that the classroom teachers increased significantly in their feelings of competence, and students showed increased interest in science and asked a wider range of questions about science. [7] These are important considerations in a long-range program such as the one in American Samoa, where the aim is increased teacher competence and increased student interest in school.

In a closely related study, Hunt reported on an experiment appraising the effectiveness of a televised series on reading instruction. Hunt used substantially the same procedures to test the reading series that Frazier and Evans had used to test the science series. The result of the study, not surprisingly, was also substantially the same, with significant change of attitude reported, but no significant differences between experimental and control groups in achievement noted.

In another research report conducted by Ralph J Gary in 1961, one can read of a series of thirty half-hour science lessons which were presented to ninety classes of fifth graders. In contrast with the results of Frazier and Evans' study, there was a statistically significant difference in achievement obtained in favor of the experimental group, both in science information and vocabulary over the control group which studied the same material but saw no telecasts. [8] Reading of such radically different results of similar experiments, one can only conclude that the content of the medium and not the medium itself was being tested in either one or both research studies.

However, it does point out the possibility of achieving good results with good television teachers utilizing good techniques; especially applicable in American Samoa where previous instruction had been by teachers who were in many cases somewhat less than highly qualified.

Suchy, Teel, and Vincent reported on an experiment conducted over a two-year period from 1957-1959 with over nine-thousand high school students to determine if it was possible, through the use of television as a teaching aid, to teach certain areas of the curriculum effectively to pupils organized in much larger groups than was currently the case, to raise the level of teacher effectiveness, and to integrate television instruction with the instructional program at all levels. The research paper reported positive results on all three proposals. (21)

In a study of one-thousand-two-hundred high school students in the Houston area, Strevell reported in a 1961 study that although there seemed to be no significant differences in overall achievement between the experimental group which for a full year saw three telecast lessons per week on high school physics and spent two days a week in conventional mode of instruction, an interesting side effect was revealed. It appeared that on the whole, television teaching was an advantage for .academically underprivileged groups. (20)

Garry and Maurielle summarized the research on "Parlons Francais" -a televised French language instruction series. They emphasized a point which has become ever more obvious with the passage of time: that the

"results corroborate a primary assumption that televised instruction alone, without regular follow-up work by the teacher, yields inadequate levels of achievement, particularly in the comprehension and spontaneous usage of French" and, one would assume, any second language. (9)

Wade further investigated the importance of adequate classroom follow-up in a more recent study. More than eight-hundred students in the fifth grade were exposed to twelve televised lessons in science. There were three experimental groups. In the first group the classroom teachers were instructed to use follow-up material consisting of questions about the telecast and to give the students immediate knowledge of correct responses. In the second group the teachers were to give the students no opportunity for any follow-up questions or answers after each telecast. The third group was provided with program guides and left to do whatever they wished with it after the telecast lessons. Group I, which had carefully planned, sequenced follow-up activities had the highest achievement on post-test scores. (24) In the instructional design for educational television in American Samoa, where the English medium of instruction was in effect a foreign language, provisions were made for a carefully planned and coordinated sequence of follow-up work to be conducted by the classroom teachers to reinforce the subject matter presented via television in each lesson.

Gropper, Lumsdaine, and Shipman investigated the possibility of improving televised instruction by having representative classes view the telecast lessons prior to public broadcast, and then giving those classes tests based on the lesson content. The results of the tests would then be used as a basis for revision of the telelesson before its broadcast. Classes who viewed

the revised lessons achieved significantly higher scores on post-tests than classes which viewed the original lessons. (12)

Research done by Schwartzwalder suggested that television-centered production techniques (such as superimposition, zooming in for close-up shots, etc.) can add materially to student learning, and particularly so in conjunction with other relevant production techniques. (18)

Kanner reviewed eighteen different research studies concerned with the effectiveness of color in television in bringing about increased learning. The studies consistently demonstrated that color television, like color films, does not appear to provide important clues to learning that are not found in black and white format. (15)

B. F. Skinner has pointed to a shortcoming of instructional television. "A language laboratory controlled from a central console pre-supposes a group of students advancing at about the same rate, even though some choice of material is permitted. Television in education has made the same mistake on a colossal scale. A class of twenty to thirty students moving at the same pace is inefficient enough, but what must we say of all the students in a half-dozen states marching in a similar lock-step?" (19)

A "programming approach" to televised instruction reported by Cropper and others, requiring active student response to questions posed them during the telecast has been shown to be capable of stimulating higher student achievement than telecasts which make no provision for student response. (12)

Carpenter and Greenhill have produced evidence that indicated that television was an effective means of presenting directly programmed instruction. (5)

A "programmed" type of format, requiring direct student response to questions asked by the television teacher is a characteristic feature of the majority of televised instruction in American Samoa.

One of the more recent trends in instructional television has been to model its format after the formats used by the most popular entertainment programs for children. In the October 28, 1970 edition of the Honolulu Star-Bulletin, Jerry Buck quoted Joan Ganz Cooney, president of The Children's Television Workshop (creators of the popular "Sesame Street" and "The Electric Company") as having said that research done by her organization has shown that, if given a choice, children prefer shows that are meaningful as well as entertaining, rather than shows which provide mere entertainment. (4)

There have been numerous studies of the relationship between mastery of language skills and scholastic achievement. In one such study by Melville and Haas, reporting on Navaho children having scholastic difficulties in the public schools, it was found that low reading ability was the factor that seemed to exert the greatest influence on the academic achievement of Navaho students. (16)

# Chapter 4
DESIGN OF THE INVESTIGATION

## Procedures

It was necessary to gain access to student permanent record files in the public schools in order to determine in order to determine if there existed a rising curve for cumulative grade averages earned by Samoan students who had transferred to Hawaii from schools in Samoa. It was hypothesized that the greater the number of years of exposure to the new cooperative system of instruction which makes maximum use of television the higher the overall cumulative grade average would be.

With the assistance of the Hawaii State Department of Education's Information Services Office, permission was obtained from the district superintendents of the Honolulu District, the Windward District, and the Leeward District to contact certain schools in their areas. The principals of eight schools granted permission to have access to the student cumulative records for screening. The schools were all in areas where there was a relatively high density of Samoan population: Kaewai School and Farrington High School in Kalihi for the Honolulu District, Kahuku High and Intermediate Schools, Laie Elementary School, Pope Elementary School, and Waimanalo Elementary School for the Windward District, and Nanakuli High School and Nanakuli Elementary School for the Leeward District.

All of the cumulative record folders at each school were screened to find those kept for students who had transferred to Hawaii public schools from schools in American Samoa since the start of Samoa's new educational system in December, 1964. Each Samoan transfer student's letter grades in each subject was noted, only grades earned in Hawaii were included, not grades earned in Samoa. Since elementary schools in Hawaii use a marking system different that that used by the high schools and intermediate schools, it was necessary to convert all grades to the same scale before finding the cumulative grade average for each student. An arbitrary number value scale was used to convert all letter grades:

E = 5 = A

S+= 4 = B

S = 3 = C

S-= 2 = D

U = 1 = F

The number values were used to compute the cumulative grade average for each Samoan Transfer student on work completed in Hawaii only.

A total of eighty-six students were found who had transferred from schools in Samoa to public schools in Hawaii since 1964. The data on these eighty-six students was separated into groups. Group A, which contained thirty-one students, was composed of Samoan children who had spent less than two years under the new system of instruction before transferring to Hawaii.

Group B, containing twenty students, was composed of Samoan students who had spent between two and four years in the new instructional system before transferring to Hawaii.

Group C, containing thirty-five students, was composed of Samoan children who had had between four and six years exposure to televised instruction in Samoa before transferring to Hawaii.

**Assumptions**

For the purposes of this study it was necessary to make certain basic assumptions about the nature of academic achievement and its measurement.

The primary assumption was that the academic performance of Samoan students who have transferred to public schools in Hawaii has been directly influenced by the quality of education they received in American Samoa.

It was also assumed for the purposes of this study that reported subject-grades are a valid measurement of a student's academic achievement.

It was assumed that letter grades carried the same value regardless of school or individual teacher or area in which the school was located. It was also assumed that elementary school letter grades and intermediate school and high school grades were equally valid measurements of academic achievement and could be equated with each other.

It was assumed for the purposes of this study that a minimum of twenty students was an adequate sampling for each group, and that a total of eighty-six students was a representative sampling of all Samoan students who have transferred to public schools in Hawaii.

# Chapter 5

## REPORT OF FINDINGS

Once the initial work of screening cumulative records, noting letter grades, converting letter grades to number values, and computing individual cumulative grade averages was completed, the data was divided into three groups. Group A consisted of the thirty-one students who had less than two years of exposure to the new system of instruction in American Samoa. Group B, containing twenty students, listed those who had been exposed to the new system of instruction for periods ranging between two and four years. Group C was composed of thirty-five students who had been enrolled in the Samoan instructional system for periods ranging from four to six years before transfer to the public schools of Hawaii.

In each group, all grades for each student were listed as number values. These number values were totaled for each group and a mean cumulative grade average for each group was computed. (See Appendix A)

The group cumulative grade averages were plotted on a graph as a function of the number of years spent in Samoa's new educational system before transfer to public schools in Hawaii.

It was hypothesized that there was a positive correlation between the number of years spent in Samoa's system making maximum use of television

and the academic achievement level of Samoan students after transfer to Hawaiian public schools. It was further hypothesized that the effectiveness of the Samoan educational system in increasing English proficiency and the general potential for academic achievement of Samoan students should be reflected in a rising curve in the cumulative grade averages of these students. The greater the number of years a student had spent in Samoa's new educational system before transferring to Hawaii, the higher the cumulative grade average should have been for school work completed in the public schools of Hawaii. The data gathered tends to support the hypotheses.

The cumulative grade average for Group A (two years exposure or less before transfer) was computed at **2.63**. The mean cumulative grade average for Group B (between two and four years exposure before transfer) was **2.78**. The mean cumulative grade average for Group C (between four and six years exposure before transfer) was **3.14**. (See Figure 1)

The cumulative grade averages for each student were ranked within each group from lowest to highest. The median cumulative grade average was found for each group, and the data plotted on a graph. (See Figure 2)

The highest cumulative grade averages within each group were plotted as shown in Figure 3, and the lowest individual cumulative grade averages in each group were plotted as shown in Figure 4.

In each case, the trend of the curve upward with the greater the number of years students had spent in the Samoan instructional system tended to support the hypotheses

## CONCLUSIONS

The results of this study have supported the hypothesis that there was a positive correlation between the number of years spent in American Samoa's educational system making maximum use of television and the academic achievement level of Samoan students who transferred from schools in American Samoa to public schools in Hawaii.

It appears that the American Samoan educational system has been effective in increasing the general academic achievement of Samoan transfer students. It is believed that this rise in achievement level is the result of increasing the students' proficiency in English and a general improvement in the quality of instruction received in the schools of American Samoa.

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## APPENDIX A

## CUMULATIVE GRADE POINT AVERAGES EARNED IN PUBLIC SCHOOLS OF HAWAII BY SAMOAN TRANSFER STUDENTS, GROUPED BY NUMBER OF YEARS OF INSTRUCTION IN THE SAMOAN E.T.V. SYSTEM

### GROUP A
### (LESS THAN 1 YEAR TO TWO YEARS)

| GRADE LEVEL | GRADES EARNED | | | | | | | CUM GRADE AV. |
|---|---|---|---|---|---|---|---|---|
| 2 | 1 | 3 | 3 | 3 | 3 | 3 | 2 | |
| 3 | 1 | 3 | 2 | 1 | 3 | 1 | 1 | **2.00** |
| 4 | 1 | 2 | 3 | 2 | 3 | 1 | 1 | |
| 5 | 1 | 2 | 3 | 2 | 3 | 1 | 1 | |
| 2 | 1 | 1 | 1 | 2 | | | | **1.25** |
| 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | |
| 3 | 1 | 1 | 2 | 1 | 3 | 3 | 1 | **2.06** |
| 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | |
| 3 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | **2.92** |
| 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | |
| 3 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | **1.35** |
| 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 5 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | **2.42** |
| 6 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | |
| 2 | 4 | 3 | 3 | 3 | 2 | 2 | 5 | 3.14 |
| 2 | 3 | 5 | 3 | 5 | 3 | 3 | 3 | 3.57 |
| 5 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | |
| 6 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | |
| 7 | 4 | 4 | 4 | 4 | 3 | 3 | 1 | 2.75 |
| 8 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | |

APPENDIX A
(CONTINUED)

**GROUP A - CONTINUED**

| GRADE LEVEL | GRADES EARNED | | | | | | | CUM. GRADE AV. |
|---|---|---|---|---|---|---|---|---|
| 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | |
| 3 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | |
| 4 | 1 | 1 | 1 | 1 | 2 | 3 | 1 | **1.57** |
| 5 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | |
| 2 | 1 | 3 | 3 | 3 | 3 | 3 | 1 | **2.43** |
| 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | **2.85** |
| 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | **2.71** |
| 2 | 4 | 3 | 3 | 4 | 3 | 2 | 2 | |
| 3 | 1 | 1 | 3 | 3 | 2 | 3 | 2 | **2.57** |
| 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 3 | 3 | 3 | 3 | 5 | 4 | 3 | 3 | **3.21** |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | **2.28** |
| 2 | 1 | 3 | 2 | 2 | 3 | 3 | 2 | **2.28** |
| 5 | 2 | 2 | 2 | 5 | 3 | 3 | 5 | |
| 6 | 1 | 1 | 2 | 3 | 2 | 2 | 3 | **2.57** |
| 7 | 3 | 3 | 3 | 2 | 3 | 3 | | |
| 8 | 4 | 3 | 3 | 2 | 3 | 3 | | **2.91** |
| 7 | 5 | 4 | 4 | 3 | 2 | 3 | | |
| 8 | 4 | 3 | 3 | 3 | 3 | 3 | | |
| 9 | 4 | 4 | 3 | 3 | 3 | 3 | | **2.87** |
| 10 | 2 | 1 | 1 | 1 | 1 | - | | |
| 2 | 3 | 2 | 2 | 2 | 2 | 2 | 4 | |
| 3 | 3 | 3 | 2 | 2 | 2 | 2 | 4 | |
| 4 | 3 | 3 | 5 | 3 | 2 | 2 | 3 | **2.92** |
| 5 | 3 | 4 | 3 | 5 | 3 | 4 | 4 | |
| 2 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | **3.71** |

**GROUP A - CONTINUED**

| GRADE LEVEL | GRADES EARNED | | | | | | | | | CUM. GRADE AV. |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | |
| 8 | 3 | 3 | 2 | 2 | 4 | 4 | 2 | | | |
| 4 | 4 | 4 | 2 | 3 | 3 | 3 | 2 | | | |
| 10 | 4 | 4 | 3 | 2 | 3 | 3 | 2 | | | **2.95** |
| 11 | 5 | 5 | 4 | 2 | 4 | 4 | 2 | | | |
| 12 | 1 | 1 | 1 | 3 | 3 | 4 | 2 | | | |
| 7 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | | |
| 8 | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | | |
| 9 | 5 | 4 | 3 | 1 | 1 | 1 | 1 | | | **2.54** |
| 10 | 4 | 1 | 1 | 1 | 1 | | | | | |
| 11 | 5 | 4 | 2 | 2 | 2 | 1 | | | | |
| 7 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 8 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 1 | |
| 9 | 4 | 4 | 3 | 3 | 1 | 1 | 1 | | | **3.07** |
| 10 | 3 | 3 | 3 | 3 | 1 | 1 | 4 | | | |
| 11 | 5 | 5 | 5 | 4 | 4 | 3 | | | | |
| 7 | 1 | 1 | 1 | 3 | 4 | 1 | | | | |
| 8 | 4 | 3 | 3 | 3 | 3 | 1 | | | | |
| 9 | 3 | 1 | 1 | 4 | 4 | 1 | | | | **2.39** |
| 10 | 3 | 1 | 2 | 3 | 2 | 1 | | | | |
| 11 | 3 | 1 | 3 | 4 | 3 | - | | | | |
| 7 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | | | |
| 8 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | | | |
| 9 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | | | **2.61** |
| 10 | 4 | 4 | 3 | 3 | 3 | 2 | - | | | |
| 11 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | | | |
| 7 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | | |
| 8 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 1 | | |
| 9 | 4 | 3 | 2 | 2 | 1 | 1 | 1 | 2 | | **2.76** |
| 10 | 4 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| 11 | 5 | 5 | 4 | 4 | 3 | 3 | - | - | | |
| 7 | 5 | 4 | 4 | 3 | 3 | 3 | 3 | 1 | | |
| 8 | 4 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | | |
| 9 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | | **1.94** |
| 10 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |

**GROUP A - CONTINUED**

| GRADE LEVEL | GRADES EARNED | | | | | | | | CUM. GRADE AV. |
|---|---|---|---|---|---|---|---|---|---|
| 7 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | |
| 8 | 4 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | |
| 9 | 4 | 3 | 3 | 2 | 1 | 1 | 1 | - | **2.80** |
| 10 | 4 | 4 | 4 | 3 | 3 | 2 | 1 | - | |
| 11 | 5 | 4 | 4 | 4 | 3 | 3 | - | - | |
| | | | | | | | | | |
| 6 | 3 | 5 | 3 | 3 | 4 | 5 | 5 | 4 | |
| 7 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | |
| 8 | 5 | 5 | 5 | 4 | 4 | 4 | 2 | 4 | **3.47** |
| 9 | 4 | 3 | 2 | 2 | 2 | 2 | 5 | - | |
| 10 | 5 | 4 | 3 | 3 | 3 | 2 | 2 | - | |

**CUMULATIVE GRADE AVERAGE FOR ENTIRE GROUP A 2.63**

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**GROUP B**
**(THREE YEARS TO FOUR YEARS)**

| GRADE LEVEL | GRADES EARNED | | | | | | | | CUM. GRADE AV. |
|---|---|---|---|---|---|---|---|---|---|
| 3 | 1 | 2 | 3 | 3 | 3 | 2 | 2 | - | |
| 4 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | - | **2.21** |
| | | | | | | | | | |
| 3 | 3 | 3 | 2 | 1 | 2 | 2 | - | - | |
| 4 | 2 | 2 | 3 | 3 | 2 | 2 | - | - | **2.15** |
| 5 | 1 | 1 | 3 | 3 | 2 | 3 | 1 | - | |
| | | | | | | | | | |
| 3 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | - | |
| 4 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | - | **2.52** |
| 5 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | - | |
| | | | | | | | | | |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | |
| 4 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | - | **2.42** |
| 5 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | - | |
| | | | | | | | | | |
| 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | **2.00** |
| | | | | | | | | | |
| 3 | 1 | 1 | 3 | 3 | 2 | 2 | 1 | - | |
| 4 | 1 | 1 | 3 | 3 | 1 | 3 | 1 | - | **1.85** |

**GROUP B - CONTINUED**
**(THREE YEARS TO FOUR YEARS)**

| GRADE LEVEL | GRADES EARNED | | | | | | | | CUM. GRADE AV. |
|---|---|---|---|---|---|---|---|---|---|
| 3 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | - | **2.50** |
| 7 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | - | |
| 8 | 5 | 4 | 3 | 3 | 3 | 3 | 2 | - | **3.09** |
| 9 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | - | |
| 3 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | - | |
| 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | **3.09** |
| 5 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | - | |
| 3 | 5 | 5 | 5 | 2 | 4 | 3 | 3 | - | **3.85** |
| 8 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | - | |
| 9 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | - | |
| 10 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | - | **3.85** |
| 11 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | |
| 8 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | - | |
| 9 | 5 | 4 | 3 | 3 | 3 | 2 | 2 | - | |
| 10 | 4 | 4 | 3 | 2 | 2 | 2 | 3 | - | **3.32** |
| 11 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | - | |
| 8 | 4 | 4 | 4 | 3 | 2 | 2 | 2 | - | |
| 9 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | - | |
| 10 | 4 | 4 | 3 | 3 | 3 | 2 | 1 | - | **3.03** |
| 11 | 4 | 4 | 3 | 3 | 3 | 4 | - | - | |
| 4 | 1 | 3 | 3 | 3 | 3 | 3 | 1 | - | **2.57** |
| 8 | 4 | 3 | 3 | 2 | 2 | 2 | - | - | |
| 9 | 5 | 3 | 3 | 2 | 2 | 1 | - | - | **2.66** |
| 8 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | |
| 9 | 3 | 3 | 3 | 3 | 4 | 4 | 2 | - | **3.13** |
| 8 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | |
| 9 | 5 | 3 | 3 | 3 | 2 | 2 | 2 | - | **2.80** |

**GROUP B - CONTINUED**
**(THREE YEARS TO FOUR YEARS)**

| GRADE LEVEL | GRADES EARNED | | | | | | | | CUM. GRADE AV. |
|---|---|---|---|---|---|---|---|---|---|
| 8 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | - | |
| 9 | 2 | 2 | 2 | 2 | 3 | 3 | - | - | **2.61** |
| 10 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | - | |
| 11 | 4 | 4 | 3 | 2 | 2 | 3 | - | - | **2.00** |

**CUMULATIVE GRADE AVERAGE FOR ENTIRE GROUP B 2.78**

**GROUP C**
**(FIVE YEARS TO SIX YEARS)**

| GRADE LEVEL | GRADES EARNED | | | | | | | | CUM. GRADE AV. |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | - | **2.71** |
| 8 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | |
| 9 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | - | **4.26** |
| 9 | 4 | 3 | 3 | 3 | 3 | - | - | - | **3.33** |
| 10 | 4 | 1 | 2 | 3 | 2 | 1 | - | - | |
| 11 | 4 | 1 | 3 | 2 | 1 | 1 | 1 | - | **2.00** |
| 10 | 5 | 4 | 5 | 4 | 2 | 1 | - | - | |
| 11 | 3 | 4 | 3 | 3 | 3 | 1 | - | - | **3.27** |
| 12 | 4 | 4 | 4 | 4 | 3 | 2 | - | - | |
| 11 | 5 | 5 | 3 | 3 | 2 | 2 | - | - | |
| 12 | 5 | 5 | 5 | 3 | 3 | 2 | 1 | - | **3.38** |
| 10 | 5 | 4 | 3 | 3 | 3 | 2 | - | - | |
| 11 | 5 | 5 | 4 | 3 | 3 | 3 | - | - | **3.55** |
| 10 | 5 | 5 | 5 | 4 | 3 | 2 | - | - | |
| 11 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | - | **3.61** |
| 8 | 5 | 4 | 3 | 3 | 3 | 3 | 2 | - | |
| 9 | 5 | 4 | 2 | 2 | 2 | 1 | 2 | 2 | **2.86** |

**GROUP C - CONTINUED**
**(FIVE YEARS TO SIX YEARS)**

| GRADE LEVEL | GRADES EARNED | | | | | | | | CUM. GRADE AV. |
|---|---|---|---|---|---|---|---|---|---|
| 9 | 4 | 2 | 2 | 2 | - | - | - | - | |
| 10 | 3 | 2 | 3 | 4 | 3 | 3 | - | - | |
| 11 | 3 | 2 | 2 | 3 | 3 | 3 | - | - | **2.91** |
| 12 | 3 | 3 | 3 | 3 | 5 | 3 | - | - | |
| 9 | 3 | 3 | 3 | 4 | 3 | 4 | - | - | |
| 10 | 3 | 2 | 1 | 2 | 1 | 3 | - | - | |
| 11 | 2 | 3 | 4 | 3 | 2 | 4 | - | - | **2.96** |
| 12 | 4 | 3 | 3 | 4 | 4 | - | - | - | |
| 10 | 5 | 4 | 4 | 3 | 3 | 2 | - | - | **3.50** |
| 10 | 5 | 5 | 4 | 4 | 3 | 2 | - | - | **3.83** |
| 8 | 4 | 4 | 2 | 2 | - | - | - | - | |
| 9 | 5 | 4 | 4 | 3 | 2 | - | - | - | **3.33** |
| 10 | 3 | 5 | 5 | 4 | 3 | 3 | - | - | |
| 11 | 5 | 3 | 5 | 3 | 3 | 2 | - | - | **3.56** |
| 12 | 4 | 4 | 4 | 3 | 2 | 3- | - | | |
| 10 | 3 | 2 | 2 | 1 | 3 | 3 | - | - | |
| 11 | 1 | 3 | 3 | 3 | 2 | 3 | - | - | **2.31** |
| 12 | 2 | 2 | 2 | 2 | - | - | - | - | |
| 10 | 4 | 3 | 4 | 2 | 2 | 3 | - | - | |
| 11 | 3 | 3 | 3 | 4 | 2 | 3 | - | - | **3.00** |
| 12 | 3 | 3 | 3 | 3 | - | - | - | - | |
| 10 | 4 | 2 | 4 | 2 | 2 | - | - | - | |
| 11 | 2 | 2 | 2 | 2 | 3 | - | - | - | **2.60** |
| 12 | 2 | 3 | 2 | 2 | 5 | - | - | - | |
| 10 | 2 | 4 | 2 | 5 | 2 | 3 | 3 | - | |
| 11 | 3 | 2 | 3 | 5 | 3 | 3 | 4 | - | **3.21** |

**GROUP C - CONTINUED**
**(FIVE YEARS TO SIX YEARS)**

| GRADE LEVEL | GRADES EARNED | | | | | | | | CUM. GRADE AV. |
|---|---|---|---|---|---|---|---|---|---|
| 9 | 4 | 4 | 4 | 4 | 4 | - | - | - | |
| 10 | 3 | 4 | 2 | 5 | 5 | 4 | - | - | **3.91** |
| 9 | 3 | 2 | 2 | 2 | 2 | 3 | - | - | |
| 10 | 2 | 2 | 4 | 2 | 2 | 1 | - | - | **2.25** |
| 12 | 3 | 2 | 3 | 3 | - | - | - | - | **2.75** |
| 12 | 3 | 2 | 3 | 2 | 4 | - | - | - | **2.8O** |
| 11 | 2 | 2 | 5 | 3 | - | - | - | - | |
| 12 | 3 | 3 | 3 | 4 | - | - | - | - | **3.13** |
| 12 | 3 | 3 | 3 | 2 | - | - | - | - | **2.75** |
| 11 | 2 | 2 | 2 | 3 | 2 | - | - | - | |
| 12 | 2 | 3 | 2 | 4 | 2 | 2 | - | - | **2.36** |
| 11 | 3 | 1 | 1 | 2 | 1 | - | - | - | |
| 12 | 5 | 4 | 4 | 2 | 3 | - | - | - | **2.60** |
| 11 | 4 | 2 | 5 | 4 | 5 | - | - | - | |
| 12 | 5 | 3 | 2 | 4 | 3 | - | - | - | **3.70** |
| 11 | 3 | 2 | 4 | 4 | 2 | 2 | - | - | **2.83** |
| 11 | 3 | 3 | 4 | 5 | 2 | - | - | - | **3.40** |
| 11 | 2 | 4 | 4 | 2 | 3 | 2 | - | - | **2.83** |
| 10 | 3 | 2 | 4 | 4 | 4 | 3 | - | - | **3.33** |
| 10 | 3 | 2 | 3 | 4 | 3 | - | - | - | **3.00** |
| 10 | 3 | 3 | 2 | 3 | 2 | 4 | - | - | **3.83** |
| 10 | 4 | 4 | 4 | 4 | 4 | 5 | - | - | **4.17** |

**CUMULATIVE GRADE AVERAGE FOR ENTIRE GROUP C 3.14**