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# A Study of the Effect on High School Students of an Educational Program Which Points out the Harmful Effects of Smoking

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12

A STUDY OF THE EFFECT ON HIGH SCHOOL STUDENTS OF  
AN EDUCATIONAL PROGRAM WHICH POINTS OUT  
THE HARMFUL EFFECTS OF SMOKING

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A Thesis  
Presented to  
the Graduate Faculty  
Central Washington State College

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Education

---

by  
Patricia Ann Hastings

June, 1969

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Donald G. Goetschius, COMMITTEE CHAIRMAN

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T. Dean Stinson

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Clifford A. Erickson

## ACKNOWLEDGMENT

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## CHAPTER I

### PURPOSE AND SCOPE OF THE STUDY

The problem of smoking in our younger population is becoming a very serious threat to general health in the United States. Research work in recent years on heart, lung, and cardiovascular disease has demonstrated beyond any question that there is a serious threat to health from chronic smoking habits. The tremendous impact of commercialism and advertising is impressed upon us every day, particularly through television. If programs can be initiated at the high school level and lower grade levels to effectively illustrate the real danger from smoking, before many students have started to smoke, the impact upon the ultimate general health could be considerable.

#### I. THE PROBLEM

##### Statement of the Problem

The purpose of this study was to (1) develop a program of education on the ill effects of smoking for high school students; (2) help reduce the number of smokers among youth through the development of youth groups to promote a non-smoking program.

### Importance of the Study

The effort to promote a program of education on the ill effects of smoking for high school students is as important as life and death itself. Research shows smoking results in (1) a shorter life span, (2) a variety of physical and emotional disturbances, (3) prohibitive expense, and (4) property and life destruction by fire.

### Objectives to Be Achieved

The proposed objectives were to (1) determine the smoking habits of the student body; (2) develop a program to discourage smoking; (3) change attitudes toward smoking; (4) measure results of the program with a post-survey questionnaire.

### Limitations of the Study

This study was limited by (1) a random sampling of students from the A. C. Davis Senior High School; (2) a pre and post survey of the anti-smoking campaign; (3) a campaign which lasted one week; (4) the methods of presentation which involved a culminating assembly, posters, hand-out literature from the health agencies, radio, television, science projects, displays of merchandise or investments which could be had with money otherwise spent for cigarettes, a short, different anti-smoking movie shown continuously throughout the day in a well-travelled area, and community medical resources. It was hoped that the close association

with and confidence held by the students for the writer would reduce limitations.

## II. A PREVIEW OF FOLLOWING CHAPTERS

There has been a preponderance of literature on the damaging effects of smoking in the past decade. Chapter II will review and document this literature with special emphasis on nationally recognized authorities in the fields of medicine, public health, and psychology. The research on which these authorities base their conclusions will be covered.

Chapter III will deal with the structure of the study. Included will be:

- A. A description of the locale and school organization.
- B. The study procedure including organization and research methods.
- C. A listing of resource materials and personnel used in the study.

An analysis of the research data is covered in Chapter IV.

In Chapter V will be found summary, conclusions, and recommendations designed to be helpful to appropriate sized high schools planning a program of education focusing on the ill effects of smoking.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

Why do some young people smoke? There are several answers to this question. According to the National Education Association bulletin on smoking some of these reasons are as follows: (1) to seek acceptance and to defy authority--pressure on the teen-ager from his peers is strong. Those who are the first to exhibit adult habits such as smoking, are admired as swingers. To smoke in defiance of school and parental regulations may give them status. (2) Smoking fills a variety of psychological needs. Many youngsters start smoking to keep up with the gang, to seek acceptance by the crowd. (3) Others smoke to feel more at ease, less shy, embarrassed or tense--to have something to do with their hands. For some, cigarettes are a symbol of rebellion against adult authority. For others, smoking gratifies a desire to feel grown-up and glamorous (4).

Smoking is so much a part of their living that children take it as a normal part of their lives (4).

Undoubtedly, children are influenced by television and printed advertising which presents smokers as the gay, popular sophisticates they wish to emulate. A most important determining factor, however, is whether or not their parents smoke. Research on teen-age smoking shows that the majority of youthful smokers come from families in which one or

both parents smoke. A surprisingly large number smoke with parental permission, though not necessarily with parental approval. When asked why they smoke, the answer many youngsters give is, "My parents smoke" (4).

Life is one thing that cannot be recovered once it is lost, and according to the authorities, smoking shortens the life span. For this reason it is important that we as educators do everything in our power to discourage youth from smoking. We must redouble our efforts in face of the fact that young people appear to be smoking earlier and heavier than ever before.

Mr. Pat McGrady, Science Editor of the American Cancer Society, has this to say:

A study of high school students in Portland, Oregon, shows that one in four boys and one in eight girls in high school smoke. Freshmen start off with an occasional cigarette and increase the number progressively as they become sophomores, juniors and seniors. The study showed that the higher their class, the lower their academic goals, the less education their parents had and the less the students take part in sports and other activities, the more they smoke. Children have one or two smoking parents--boys do as Dad does, girls follow Mom's example (1:1).

Our concern is further explained in the words of Leona Baumgartner, M.D.

It now appears that teen-agers smoke at an earlier age and more heavily than ever before. What about the relationship of smoking to health? What is known, what has been demonstrated, what conclusions is it wise to draw as of right now? There seems to be small doubt that the wisest conclusion to draw is the one agreed upon by

the U. S. Public Health Service, the American Cancer Society, the British Ministry of Health, and the Medical Research Council of Great Britain: it is their considered judgment that "Cigarette smoking is a significant causal factor in a majority of cases of lung cancer" (2).

In view of the expert opinions concerning the smoking and its relationship to lung cancer, young people must be shown that to smoke or not to smoke is a case of life or death. Definite proof of this appeared early in 1964.

On Saturday morning, January 11, some one-hundred reporters entered a federal auditorium in Washington, D.C. When the press was seated, all doors were locked (to prevent news leaks) and clerks handed out copies of a hefty, 387 page book entitled Smoking and Health. This was the long awaited report of the U. S. Surgeon General Luther L. Terry's Advisory Committee which was expected to settle the cigarette controversy once and for all.

A glance at the report's main conclusion was sufficient to reveal that the impartial committee of medical experts had produced a blockbuster. The report stated, "On the basis of prolonged study and evaluation of many lines of converging evidence, the Committee makes the following judgment: Cigarette smoking is a health hazard of sufficient importance in the United States to warrant appropriate remedial action."

Within a few hours newspapers throughout the country bristled with startling headlines. The New York Herald Tribune, for example, presented the story under a front-page banner: "It's Official-- Cigarette Smoking Can Kill You."

Medical findings reveal the following: Cigarette smoking causes lung cancer in men. The evidence for women, while less extensive, points to the same conclusion. The magnitude of the effect of cigarette smoking "far outweighs all other factors" including air pollution.

Cigarette smoking greatly reduces lung function. Breathlessness is far more prevalent among smokers than non-smokers.

Women who smoke during pregnancy tend to have babies who are underweight at birth.

Cigarette smoking is a significant factor in causing cancer of the larynx in men, and there is some connection between cigarette smoking and cancer of the esophagus and urinary bladder.

Male cigarette smokers have a 70% higher death rate from coronary heart disease than non-smokers.

While the cause-effect relationship has not been established, cigarette smoking is "associated" with many cardiovascular diseases including hypertensive heart disease and general arteriosclerosis (3:71-72).

Promotion of smoking through advertising. Some cigarette manufacturers go to great lengths and spend large amounts of money to promote smoking. They not only advertise to a great extent but also give away coupons for prizes. For example, an article published in Everybody's Money says:

If you save enough coupons, goes an old story, you can get yourself a free lung operation. In other words, every "gift" has its price.

Since then the B & W coupon catalog has gone to 80 pages crammed with over 900 nationally advertised products in its latest edition. You can get everything from a portable television set (11,675 coupons) to an electric knife (1,850 coupons) to a dish towel (100 coupons) to a deck of cards (75 coupons). You can even get an American flag with a pole to fly it from for 575 coupons.

In the last year or so other cigarette manufacturers have seen that the coupon craze is a good way to drum up business. In the words of an official of P. Lorillard Company (Old Gold, York, Spring brands) the coupons have "not only increased sales substantially but also stimulated greater brand loyalty."

The last is especially important with smokers today searching around for a safer cigarette or trying to kick the habit altogether. The coupons have the same effect that such stamps as S & H Green Stamps have. Once you start saving them, you're hooked. After all, you are paying for them one way or another and to throw the coupons away would be a waste.

Philip Morris is now offering coupons on two of its brands that can be redeemed for Green Stamps at the rate of four stamps to one coupon.

The same charges made against the stamps are now being made against the cigarette coupons. It's fairly well established that the gifts offered through stamp plans could have been purchased easily and more cheaply with cash (5:22).

Summary. So much has been written in nationally published periodicals such as Parents' Magazine, Reader's Digest, and Redbook pointing out the deleterious effects of smoking that the writer has tried to summarize the general tone of the information in the representative articles included in this chapter. The most dynamic efforts at informing the public are being made today by the American Cancer Society.

A year before his death in March, 1960, Senator Richard L. Neuberger of Oregon asked for federal aid to the states in educating school children about the physical effects of tobacco and alcohol. He told the Senate that he was disturbed by the flood of "glamour advertising" beseeching youths "to begin a habit which the Public Health Service warns may lead to one of the most dread diseases known to mankind."

The mass media, which collect many millions of dollars from tobacco advertising each year, have failed to give complete data on this subject. The nation's newspapers carry reports of the various scientific findings as they are announced, usually accompanied by the industry's standard rebuttal.

It would appear that if our young people are to be provided with the facts about health and cigarette smoking that the schools would be the logical institution to carry on an anti-smoking program.

## CHAPTER III

### METHODS AND PROCEDURES

#### I. RESEARCH LOCATION

A. C. Davis Senior High School, a closed campus, is one of Yakima's two senior high schools and occupies about five and one-half full city blocks. One and a half full city blocks is covered with instructional buildings, both academic and vocational. The remaining half city block is a fenced athletic field across the street from the boys' gymnasium. Two large parking lots have been acquired recently across the street from the instructional buildings for parking purposes. Kumler field, a multi-purpose athletic field, encompasses a little more than two full city blocks. Competitive athletic events are hosted at the Yakima City Schools' Stadium and Gymnasium located across town on the forty acre campus of the other high school, which is shared by both high schools.

The population of Davis is about 1,500 students, representing primarily students from the middle and lower socio-economic group, a few students from prosperous professional homes, and a large number of students from homes representing at least four generations on public assistance.

The administration of this school is carried out by the superintendent and his staff in addition to the principal, two vice principals, and four counselors. Sixty-five certified teachers and the consultant services of seventeen certified experts in separate fields complete the certified employees.

## II. PROCEDURE

Instruments used were a pre-survey questionnaire and attitude rating scale of a random sampling of 275 students in the tenth, eleventh, and twelfth grades at A. C. Davis Senior High School. These questionnaires were taken by Mrs. Hastings' home room students to representative home rooms of the different class levels and were to be filled out during that period. The pre-survey was later broken down into grade levels, sex, age, and extent of smoking experience. The survey questionnaire included statements about their smoking habits and attitudes to which they could respond in varying degrees.

Following the pre-survey test, a week-long educational campaign on the harmful effects of smoking was held in the A. C. Davis Senior High School (see III. Media, pages 12-14).

A post-test was given immediately after the campaign using the same questionnaire and attitude rating scale under the same sampling procedure. The only difference between the pre-survey administration

and the post-survey administration was that the survey included home rooms which had not been previously sampled.

### III. MEDIA

Methods of enlisting cooperation for the smoking campaign was accomplished by enlisting the help or permission of the following:

#### A. Preliminary Plans

1. Secure permission of the administration of the school district.
  - a. superintendent
  - b. principal
  - c. English department chairman
  - d. other department chairmen of the building
  - e. various department teachers
2. Tentative agreement of resource people and equipment to be used.
  - a. Health agencies and associations
    - (1) American Cancer Society, Washington Division, Inc.
    - (2) Washington State Interagency Council on Smoking and Health, Olympia, Washington.
    - (3) Washington State Department of Health
    - (4) Washington State Heart Association

- (5) Yakima County Medical Association
- (6) Washington State Tuberculosis Association

b. Medical profession

- (1) local pathologist
  - (a) Dr. Douglas Morningstar
- (2) local radiologists
  - (a) Dr. Patrick Lynch
  - (b) Dr. Eric Benson
- (3) local internal medicine and diagnostician
  - (a) Dr. Ralph Uber (contact Dr. Uber to arrange for lung specimens)
- (4) thoracic and cardio vascular surgeon
  - (a) Dr. Justin Aalpole (contact Dr. Aalpole for lung specimens)
- (5) registered nurse
  - (a) Mrs. Adolph (Melba) Strand, Education Chairman, American Cancer Society

c. Washington State resource people

- (1) Louis Bruno, State Superintendent of Education
- (2) Harry App, Coordinator, Smoking and Health Program, Washington State Department of Health

- (3) Bernard Bucove, M.D., State Director of Health
- (4) Chester D. Babcock, Assistant Superintendent for Curriculum and Instruction
- (5) Lucille Tracano, Supervisor of Health Education

d. Business and equipment resources

- (1) Jed's Sports and Athletics
- (2) Cliff Miller's Camera and Office Equipment
- (3) Global Travel Service
- (4) Rex Matthew's Ford Agency
- (5) Poulin's Cycle Shop
- (6) National Bank of Washington (savings book and bank showing savings plus computed interest)
- (7) Wright's Music Store
- (8) Lee Semon Men's Wear
- (9) Jess Barber's Fashions
- (10) Nordstrom's--America's Finer Shoes

e. School classes

- (1) English
- (2) science
- (3) physical education
- (4) audio-visual
- (5) mechanical drawing

- (6) speech
  - (7) distributive education
  - (8) art
  - (9) sociology
  - (10) psychology
  - (11) radio
  - (12) mathematics
- f. School youth groups
- (1) Key Club
  - (2) Photography Club
  - (3) Pirate Lassies
  - (4) Thespians
  - (5) Debate
- g. Communications media
- (1) Radio
    - (a) Commercial: KIT, KIMA, KUTI, KNDX
    - (b) School: fixed range station
  - (2) Television
    - (a) KIMA
    - (b) KNDO
  - (3) Newspapers
    - (a) Yakima Herald-Republic

(b) The Sun

(c) The Voyager (school)

h. Other media

- (1) Tele-lecture (Davis has utilized national tele-lecture media)
- (2) Free color films about smoking from the health agencies
- (3) Free anti-smoking book markers from the American Cancer Society for distribution with library books
- (4) Free posters and hand-out literature on smoking and health from the American Cancer Society, the Washington State Heart Association, and the Washington State Tuberculosis Association
- (5) Free one-minute radio "plugs" for local radio stations from the American Cancer Society.

A comparison of the pre and post survey results is found in Tables I, II, III, and IV.

Hypothesis. An educational campaign on the harmful effects of smoking will:

1. affect the attitudes of high school students toward smoking.
2. reduce the number of high school students who smoke.

## CHAPTER IV

### ANALYSIS AND FINDINGS OF RESEARCH DATA

The following data were obtained from an attitude rating scale and a smoking questionnaire given to the high school students of A. C. Davis Senior High School before and after the educational campaign on the ill effects of smoking. From the high school population of 1,500 students, a random sample of 275 (18%) students was chosen for the pre survey and a different sample of 275 students for the post survey.

The research was completed during the 1968-69 school year. The smoking-attitude questionnaire, found in the Appendix, consists of three parts. The first part deals with the amount of smoking done by the high school students; the second part, consisting of five questions, tests their attitudinal change before and after the educational campaign. Part three is a summary of statements made by the students who were surveyed.

#### Age, Sex, and Class of Smokers

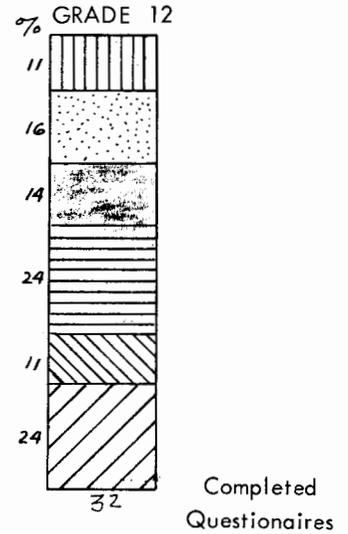
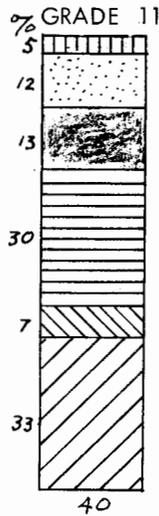
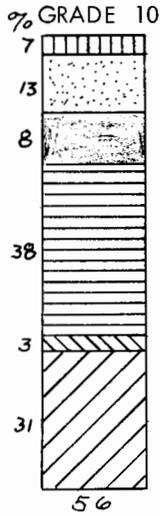
The median age level for the seniors was seventeen, for juniors-- sixteen years, and for sophomores the median age was fifteen years. Referring to Tables I and II, it appears the boys in all three classes did more smoking, both in number and quantity, than the girls both before and after the educational campaign. Table I shows the change in smoking

BOYS' SMOKING HABITS BY GRADE LEVEL

TABLE I

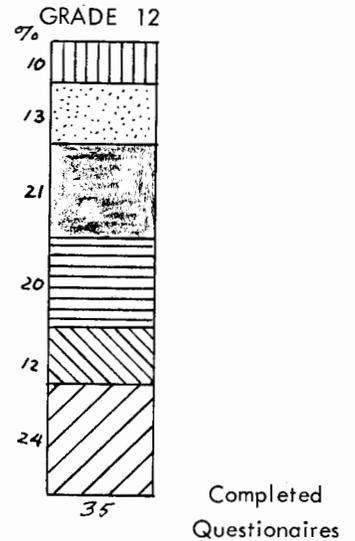
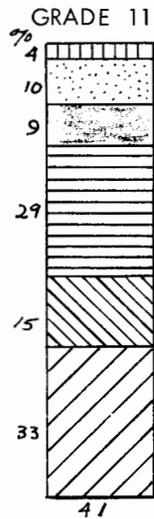
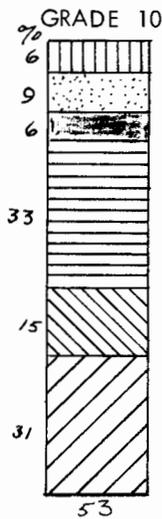
MALE

PRE-SURVEY



- |   |  |                 |  |
|---|--|-----------------|--|
| A. SMOKES $\frac{1}{2}$ PACKAGE OR MORE DAILY |  | D. OCCASIONALLY |  |
| B. SMOKES $\frac{1}{2}$ PACKAGE OR LESS DAILY |  | E. EX-SMOKER    |  |
| C. SMOKES AT LEAST ONCE A WEEK                |  | F. NEVER SMOKED |  |

POST-SURVEY

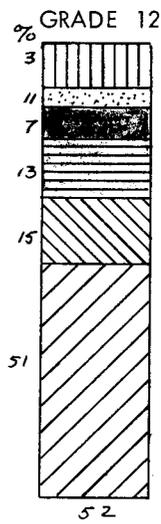
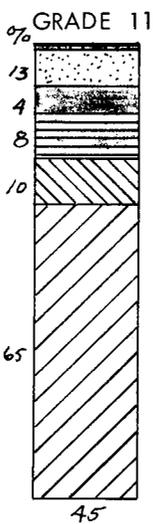
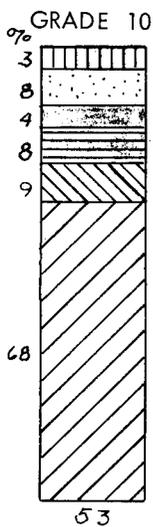


GIRLS' SMOKING HABITS BY GRADE LEVEL

TABLE II

FEMALE

PRE-SURVEY

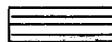


Completed Questionnaires

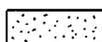
A. SMOKES  $\frac{1}{2}$  PACKAGE OR MORE DAILY



D. OCCASIONALLY



B. SMOKES  $\frac{1}{2}$  PACKAGE OR LESS DAILY



E. EX-SMOKER



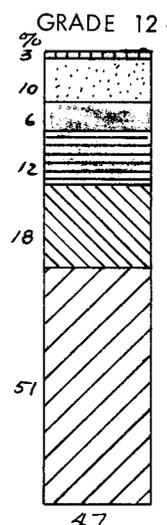
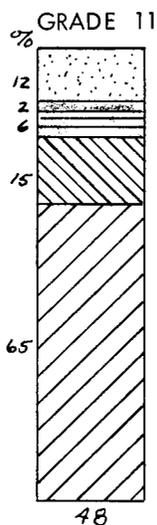
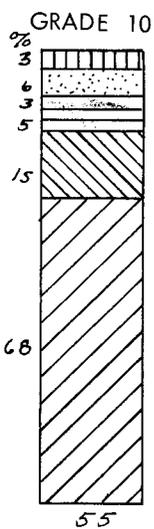
C. SMOKES AT LEAST ONCE A WEEK



F. NEVER SMOKED



POST-SURVEY



Completed Questionnaires

habits of boys before and after the educational campaign. There was a drop in the per cent of boys who smoked one-half package or more daily, a larger drop in the per cent who smoked one-half package or less daily, and a drop also in those who smoked once a week and occasionally. There appeared to be a great increase in the per cent of ex-smokers, indicating in general that there were fewer boys smoking and more who had quit smoking by the end of the campaign. The data in Table I reveals that there were more smokers among the senior boys than either of the other classes.

The results shown in Table II indicate that the percentage of girls who smoked before and after the campaign was much less than the boys shown in Table I. The sophomore class, for instance, had 77 per cent of the girls who were ex-smokers or non-smokers before the campaign and 83 per cent after as compared with 34 per cent and 46 per cent of the boys. Other classes indicated similar percentages. As with the boys, it appeared the senior girls smoked quite a bit more than either sophomore or junior girls. This might be a reflection of an extensive smoking campaign conducted last year by the junior class while they were sophomores.

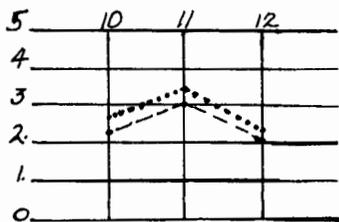
#### Attitudinal Changes Toward Smoking

Average smoking attitudes of students in the pre and post survey, found in Table III, indicates that attitudes of the three classes were affected by the Anti-Smoking Campaign to varying degrees. Girls at all

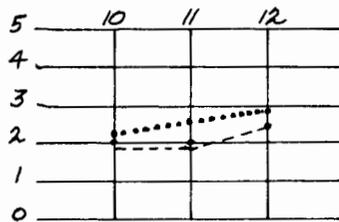
PRE-SURVEY  
 MALES  
 GRADES

TABLE III  
 AVERAGE SMOKING ATTITUDES

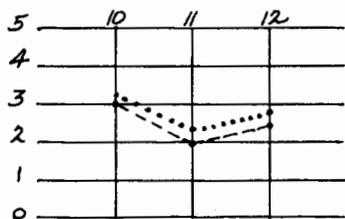
POST-SURVEY  
 FEMALES  
 GRADES



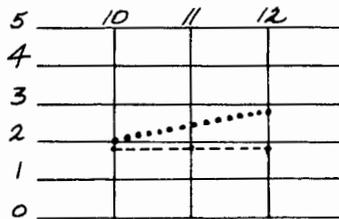
5 Disagree Strongly  
 4 Disagree  
 3 Don't Agree or Disagree  
 2 Agree  
 1 Agree Strongly  
 0



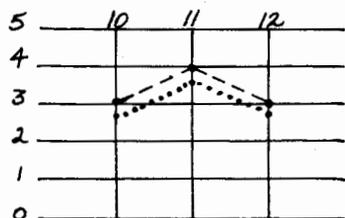
2. WHEN I HAVE CHILDREN, I HOPE THEY NEVER SMOKE.



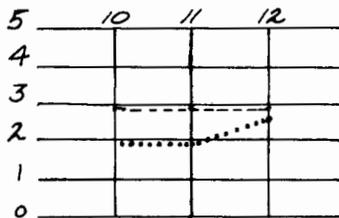
5 Disagree Strongly  
 4 Disagree  
 3 Don't Agree or Disagree  
 2 Agree  
 1 Agree Strongly  
 0



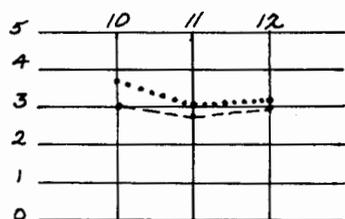
3. THERE IS NOTHING WRONG WITH SMOKING.



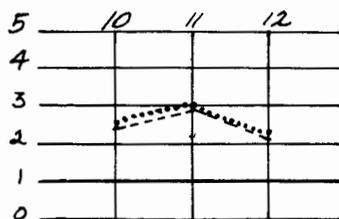
5 Disagree Strongly  
 4 Disagree  
 3 Don't Agree or Disagree  
 2 Agree  
 1 Agree Strongly  
 0



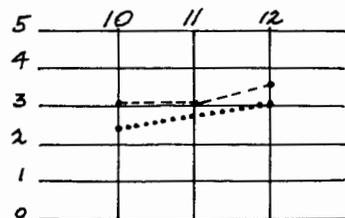
4. SMOKING IS A DIRTY HABIT.



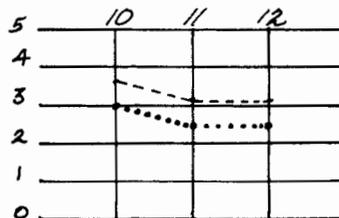
5 Disagree Strongly  
 4 Disagree  
 3 Don't Agree or Disagree  
 2 Agree  
 1 Agree Strongly  
 0



5. THERE IS NOTHING WRONG WITH SMOKING AS LONG AS A PERSON SMOKES MODERATELY.



5 Disagree Strongly  
 4 Disagree  
 3 Don't Agree or Disagree  
 2 Agree  
 1 Agree Strongly  
 0



three levels indicated to a greater degree than boys, that smoking costs more than the pleasure is worth. Again, more girls than boys at all three levels hoped their children did not smoke. More girls than boys felt that smoking was a dirty habit. The boys disagreed more than the girls that there is nothing wrong with smoking. Varying responses by class and sex appeared in their attitudes about "there is nothing wrong with smoking as long as a person smokes moderately."

The campaign was designed to point out in a matter-of-fact way the stark correlation between lung cancer and smoking, early death and smoking, and the items which could be purchased with the money which might otherwise be spent on cigarettes, and then challenging the students to make their own decisions. "It's up to you!" Survey results indicated the campaign had value in reducing smoking and changing attitudes.

An interesting corollary was made by Mr. Mark Bontrager, Assistant Principal, about ninety days following the campaign which involved a student questionnaire from eighty-two students of the Davis student body who were selected at random by ten students. This questionnaire stemmed from the many student comments received by him from students attempting to justify their smoking in or on school premises with "Everyone smokes."

Deciding to conduct a survey to ascertain the validity of the students' observations, he selected five lettermen and five rally girls



TABLE IV

Common Statements Volunteered by Students According to Class About the Different Aspects and Reaction to the Week-Long Anti-Smoking Campaign. (Students often reacted to more than one aspect of the campaign.)

Statement	Grade Level		
	Seniors	Juniors	Sophomores
It was a good campaign.	28%	32%	35%
A similar program desired for parents.	20%	23%	21%
The cancerous lung display made a positive reaction about the effect of smoking on the lungs.	29%	23%	24%
The variety of films shown in the Commons during the week was the best part of the campaign.	7%	14%	5%
The culminating assembly with a film and question-and-answer period conducted by a local doctor was the best feature.	12%	4%	12%
It was ineffective and did no good.	3%	2%	2%

in the Commons. Significantly, the higher the class level, the lower their response in most areas, which might reflect that the younger students were more impressionable. Less than 3 per cent of the students believed that the campaign was ineffective.

### Summary

The campaign had value in reducing smoking, in educating the students to the hazards and expense of smoking, and convinced others to stop smoking altogether.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### I. SUMMARY

An educational campaign on the harmful effects of smoking was conducted at the A. C. Davis Senior High School. To determine the effectiveness of this campaign, a pre-survey questionnaire to determine the amount of smoking done by the students and their attitude toward the smoking habit was given to 275 of the 1,500 students in the high school both before and after the anti-smoking campaign.

#### II. CONCLUSIONS

The results of this campaign as indicated on the questionnaires answered by the students sampled were as follows:

1. The number of boys who smoke and the quantity of cigarettes smoked is greater than the number of girls who smoke and the quantity of cigarettes smoked at A. C. Davis Senior High School.
2. There was a drop in the per cent of boys and girls smoking cigarettes at the close of the campaign.
3. There was an increase in the per cent of ex-smokers following the campaign.

4. The senior class had a higher percentage of smokers of both sexes both before and following the campaign than either the sophomore or junior classes.
5. Boys were more tolerant of the smoking habit than girls.
6. Most of the students thought that the campaign was effective.
7. In general, the younger the students, the greater appeared to be the effectiveness of the campaign.
8. Not all students will heed the dangers of smoking--as they grow older they become more tolerant.
9. The impact of the campaign carried over to the faculty--ten members stopped smoking.
10. The lung specimens displayed made a deep impression on both the boys and the girls.

### III. RECOMMENDATIONS

1. Smoking campaigns should be presented to the parents through service clubs as well as to students through the schools.
2. Smoking campaigns should be repeated every other year with a campaign on narcotics alternate years.
3. Effective small group discussions could be carried out to discourage smoking.

4. Display cancerous and tar-saturated lungs beside a healthy lung during each campaign.
5. Display a progressive series of pictures of a patient's deterioration from throat cancer.
6. Periodically place reminders on bulletin boards and display areas reminding smokers of the cost of smoking. Break the cost down into years of smoking with items which might have been purchased instead of cigarettes.
7. Compute the interest on a person's lifetime smoking cost beside a deposit book and a savings bank.
8. Smoking dangers must be graphically portrayed to students to make them aware of the consequences.
9. Show a different film continuously in a heavily traveled area during the day. Excellent free films are available from the American Cancer Society.
10. Education should be geared to particularly appeal to the boys since they seem to smoke earlier and more than the girls.
11. Educate students to the hazards of smoking at an early age. Start with the fifth and sixth grade levels with reinforcement in this education at the junior high level.
12. Science department could display residue of tar in smoking machines from filter-tipped cigarettes; or a nine-month

project involving rats which received a concentrated application of tar to the body or the tail five days a week for six to nine months to produce lesions.

13. Systematic delivery to specific classes of pamphlets emphasizing medical dangers and hazards of smoking.
14. Since group pressure is the greatest reason for not smoking, a club could be organized for students who decide not to smoke, like the Anti-Smogs Club in Wisconsin which have twenty chapters in Wisconsin schools with a membership of 1,500.
15. Recommend that anti-smoking clubs sponsor educational programs intermittently throughout the year, conduct surveys, and sponsor assemblies and films.
16. Present a culminating assembly with an impact film and a medical doctor for a question and answer period. Five or six representatives at the fourth, fifth, and sixth grade levels from each elementary school and from all levels of the junior high schools should be invited to the assembly. Invite your guests to tour the building to view the displays discouraging the smoking following the assembly. One of the popular non-smoking athletes might offer to bring a panel group of high school leaders and athletes to their schools for an assembly

on smoking. Encourage guests to conduct their own campaign and offer any assistance they may wish.

17. Involve as many different departments and people as possible.

When Davis students were presented with the evidence and given an opportunity to observe the effects of cigarette smoking upon their health, a majority of the students agreed that the educational anti-smoking campaign was successful in its purpose to develop a program on the ill effects of smoking for high school students and to reduce the number of smokers among youth.

Dr. Jesse Mercer Gehmann had this to say in his book, Smoke

Over America:

The greatest friends of tobacco are advertising, ignorance, and lies. The greatest and ablest enemies of tobacco are education, knowledge, and truth.

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## APPENDIX

SECONDARY SCHOOL SURVEY ON SMOKING

A. C. DAVIS SENIOR HIGH SCHOOL

Date \_\_\_\_\_ 196\_\_ Age your last birthday \_\_\_\_\_  
Boy \_\_\_\_\_ Girl \_\_\_\_\_ (check one)  
Present school grade: 10 \_\_\_\_\_ 11 \_\_\_\_\_ 12 \_\_\_\_\_ (check one)  
Father's usual occupation \_\_\_\_\_

I. CHECK THE ONE STATEMENT (AND ONLY ONE) THAT BEST DESCRIBES YOUR CIGARETTE SMOKING AT PRESENT:

- A. I smoke half-a-pack or more of cigarettes just about every day.
- B. I smoke cigarettes just about every day, but less than half-a-pack a day.
- C. I don't smoke cigarettes every day, but I do smoke them at least once a week.
- D. I have smoked cigarettes just to see what they are like, but I do not smoke at all at the present time.
- E. I used to smoke cigarettes regularly, but I do not smoke them at all at the present time.
- F. I have NEVER smoked cigarettes at all.

II. INDICATE HOW YOU FEEL ABOUT THE FOLLOWING STATEMENTS:

Check the box which best represents your feeling about each of the five items.

- |   | 1     | 2     | 3     | 4     | 5     |
|---|-------|-------|-------|-------|-------|
| A. Smoking costs more than the pleasure is worth.                             | _____ | _____ | _____ | _____ | _____ |
| B. When I have children, I hope they never smoke.                             | _____ | _____ | _____ | _____ | _____ |
| C. There is nothing wrong with smoking  | _____ | _____ | _____ | _____ | _____ |
| D. Smoking is a dirty habit.  | _____ | _____ | _____ | _____ | _____ |
| E. There is nothing wrong with smoking as long as a person smokes moderately. | _____ | _____ | _____ | _____ | _____ |

1. Strongly agree
2. Mildly agree
3. Neither agree nor disagree
4. Mildly disagree
5. Strongly disagree

III. Write a statement about the anti-smoking campaign. Use the back of this sheet if necessary.