Student Smoking and Health Education in Vocational Institutions and Senior Secondary Schools

National Board of Education 2000

Anna-Ester Liimatainen-Lamberg, PhD, Counsellor of Education
National Board of Education
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This report is an abridgement of the results of a study made in the schoolyear 1986-1987 and its follow-up study in the schoolyear 1997-1998. Based on the research results, the report compares the changes that took place in smoking and use of intoxicants by the students of vocational institutions and upper secondary schools. The implementation of health education in the educational institutions is examined as estimated by the headmasters and students.

The research work and translation, on which the English abridged version is based, were made at the National Board of Education with the financial support of the Ministry of Social Affairs and Health.

I express my thanks to all those who took part in drawing up and translating the report and for financial as well as any other support in preparing it.

At the National Board of Education, on the 28th of January, 2000

Anna-Ester Liimatainen-Lamberg
PhD, MEd, Counsellor of Education
STUDENT SMOKING AND HEALTH EDUCATION IN VOCATIONAL INSTITUTIONS AND SENIOR SECONDARY SCHOOLS

ABSTRACT

The purpose of this research was to study student smoking behaviour and the changes in it from 1987 to 1998 as well as the state of health education in vocational institutions, commercial institutions, health care institutions and senior secondary schools.

The research was carried out using a questionnaire to 2512 first-year students in 31 educational institutions. Most of the students were 17 years old. In addition, information about health education was collected from the headmasters and physical education teachers of the educational institutions concerned with the study.

The research results indicated that in 1998 36.3 percent of the students smoked daily, which means an increase of 3.3 percent for the male students and 7.6 percent for the female students in smoking compared with 1987. The number of cigarettes smoked had decreased.

According to the research results of 1998, there were considerable differences in student smoking between educational institutions: the male students of the senior secondary school smoked least (13.5 %) and the female students of the vocational institutions most (46.5 %). During the school year 1997-1998 only slight changes had taken place in student smoking habits: of all students, about 72 percent reported having remained non-smokers or smoked as much as at the beginning of the school year.

The students’ intentions to smoke at a future occupation had increased in all forms of educational institutions. Attitudes towards smoking were connected with the students’ smoking habits, so the smokers had a more positive attitude than the non-smokers towards smoking. The smokers also took less interest than the non-smokers in physical exercise.

The headmasters believed in health education and considered it the best form of preventive work against smoking. The physical education teachers saw a drawback in the small number of hours for health education. Subjects covered in of health education, they placed emphasis on public health work, the use of intoxicants, tobacco and medicine, as well as physical education and health. Student opinions about anti-smoking health education were not very positive. In particular the small amount of information about connections between smoking and occupation was considered a drawback.
THE EMPIRICAL PART

1. RESEARCH PROBLEMS

The purpose of this study is to find out about changes in the cigarette smoking habits among the first-year students in vocational institutions and senior secondary schools between the school years 1986-1987 and 1997-1998. The study also describes educational reality and state of cigarette smoking-related health education at the various forms of educational institutions.

The research problems are as follows:

1. What kind of changes in the health behaviour, chiefly in smoking and the use of intoxicants, of the students of different forms of educational institutions have taken place between 1987 and 1998.

2. To what degree have the students’ intentions to smoke, attitudes and reasons for smoking, as well as the attitude towards restrictions on smoking changed from 1987 to 1998.

3. How has health education, especially the instruction of the subject called Health Education, been carried out in vocational institutions and senior secondary schools.
2. RESEARCH METHODS

2.1 Research design and implementation of the study

The research material was collected in March 1998. The questionnaire was answered by students and also by the headmasters and physical education teachers of the educational institutions concerned with the study. The progression of the study is depicted in Figure 1.

FIGURE 1. Implementation of the study

2.2 Study population

The subjects of research were the same educational institutions as in 1986-1987. They represented students of vocational institutions, commercial institutions, health care institutions and senior secondary schools all over the country. The numbers of students participating in the research are presented in Table 1.

TABLE 1. The research data by sex and institution

<table>
<thead>
<tr>
<th>Vocational Institutions</th>
<th>Commercial Institutions</th>
<th>Health Care Institutions</th>
<th>Senior Secondary Schools</th>
<th>Sum</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>M  F</td>
<td>M  F</td>
<td>M  F</td>
<td>M  F</td>
<td>M  F</td>
<td></td>
</tr>
<tr>
<td>985 319 191 163 25 136 323 370 1524 988</td>
<td>2512</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.3 Research instruments and collection of data

For the comparability of the results of 1987 and 1998, the student questionnaire included partly the same questions as in 1986-1987. With the help of variables, the study outlined student health behaviour and the changes in it concerning smoking and the use of intoxicants, health education as experienced by students and also estimated by headmasters and physical education teachers. In addition, the study included variables concerning student school attendance, future orientation and factors of atmosphere within the educational institution.

Research data were collected from the students using questionnaires (Appendix 1). In addition to those, the headmasters of the educational institutions were sent a covering letter that explained the purpose of the research and provided instructions for dealing with the questionnaire.

At the end of the spring term, a questionnaire was directed to the headmasters (Appendix 2), in which they were asked for the views of the institution’s leadership on smoking and measures for reducing smoking, student use of intoxicants, and on matters concerning health education.
3. GENERAL DESCRIPTION OF STUDENTS

3.1 Students’ sex and age

The subjects of the study included more males (60.5%) than females (39.5%). The corresponding figures in 1987 were 56.6 percent and 43.5 percent.

The age distribution of students is presented in Figure 2, which shows that the students of vocational institutions and senior secondary schools were youngest and the students of health care institutions were older than the other students.

![Figure 2. The age distributions of students (%) by sex and institution.](image)

3.2 Students’ perceived health status and physical exercise during free-time

Of the students, 68 percent assessed their health as very good or rather good, and almost seven percent as rather poor or very poor. The students of health care institutions considered themselves the healthiest, while the students of vocational institutions felt their health poorer than that of the others.

When comparing the latest results with the corresponding results of 1987, it was found out that the proportion of those experiencing their health as very good or rather good had increased, most of all among the students of commercial institutions (Table 2).

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</tr>
</thead>
<tbody>
<tr>
<td>very/quite good</td>
<td>62.1</td>
<td>64.4</td>
<td>58.8</td>
<td>66.5</td>
<td>73.6</td>
<td>77.9</td>
<td>69.0</td>
<td>73.5</td>
</tr>
<tr>
<td>average</td>
<td>30.6</td>
<td>28.4</td>
<td>34.7</td>
<td>26.6</td>
<td>22.5</td>
<td>17.7</td>
<td>23.7</td>
<td>20.7</td>
</tr>
<tr>
<td>very/quite poor</td>
<td>7.3</td>
<td>7.2</td>
<td>6.4</td>
<td>6.9</td>
<td>3.8</td>
<td>4.4</td>
<td>7.3</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Of the symptoms felt by students the most common were irritation, nervousness and headache, which appeared at least once a week among more than one fifth of the students (Appendix 3). The female students felt symptoms more often than the male students, especially so in commercial and vocational institutions.

Student interest in physical exercise was investigated by asking how many hours a week during their free-time they exercised to the point of sweating and getting out of breath. Compared with 1987, both the proportion of those taking a lot of physical exercise and the proportion of those taking no exercise at all had increased (Table 3). This was particularly the case in commercial institutions.

TABLE 3. Student interest in physical exercise by institution in 1987 and 1998 (%).

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 h or more</td>
<td>29.4</td>
<td>30.9</td>
<td>20.2</td>
<td>37.0</td>
<td>25.2</td>
<td>25.0</td>
<td>37.8</td>
<td>39.2</td>
</tr>
<tr>
<td>2-3 h</td>
<td>35.0</td>
<td>34.6</td>
<td>41.6</td>
<td>28.4</td>
<td>41.4</td>
<td>44.9</td>
<td>37.6</td>
<td>33.9</td>
</tr>
<tr>
<td>0.5-1 h</td>
<td>26.6</td>
<td>27.1</td>
<td>31.1</td>
<td>20.9</td>
<td>30.9</td>
<td>23.1</td>
<td>18.7</td>
<td>21.5</td>
</tr>
<tr>
<td>none</td>
<td>9.1</td>
<td>7.4</td>
<td>7.1</td>
<td>13.8</td>
<td>2.5</td>
<td>7.1</td>
<td>5.8</td>
<td>5.4</td>
</tr>
</tbody>
</table>

One third of the students reported they took physical exercise more for than four hours a week, boys more often than girls (Figure 3). Of the male students, the students of the health care institutions took most physical exercise, the students in vocational institutions the least. Of the female students, the students of senior secondary schools took the most physical exercise, the students in commercial institutions the least. Of the female students in commercial institutions, almost one fifth took no physical exercise at all during their free-time, at least not to the point of sweating or getting out of breath.
Smoking seemed to be correlated with an interest in physical exercise so the non-smokers had more physical exercise than the daily smokers. Of the non-smokers 40 percent and of the daily smokers 25 percent, took physical exercise for more than four hours a week. Of the daily smokers more than 10 percent had no physical exercise at all, whereas the corresponding proportion of the non-smokers was five percent.

FIGURE 3. Weekly student interest in physical exercise by institution and sex in 1998 (%)
4 SMOKING BEHAVIOUR AND RELATED FACTORS

4.1 Restrictions on smoking

Of the students, 87 percent reported smoking was allowed only at outdoor smoking points. Smoking was totally prohibited in 11 percent of the educational institutions, most often in senior secondary schools. There were hardly any smoking rooms.

The students of vocational institutions had received most information about restrictions on smoking, the students of senior secondary schools least. Most students (94 %) had learned about the smoking restrictions of their educational institutions from teachers, two thirds from regulations, and about 40 percent from no-smoking signs. Only one fourth had received information from the student body.

A majority of students (60 %) thought that teachers supervised observance of the smoking restrictions occasionally, and less than one fourth thought they did it very often or quite often. 17 percent thought the smoking restrictions were never supervised. Students thought smoking restrictions were supervised most in senior secondary schools and vocational institutions, least in commercial institutions.

4.2 Frequency of smoking on school grounds

Almost 90 percent of the students reported smoking on school grounds was either very common or quite common. The students of commercial institutions thought so more often than the others. Only five percent of the students saw smoking on school grounds as minimal or non-existant. Even though in one third of senior secondary schools smoking was totally prohibited and the students also seemed to know it, still only 0.4 percent of them reported there was no smoking on school grounds.

When comparing smoking in 1987 with that in 1998, smoking on school grounds had become more common, especially in health care institutions and senior secondary schools (Table 4). In 1987 one student in every four in senior secondary schools and health care institutions thought that smoking on school grounds was rather little or there was no smoking at all on school grounds, whereas in 1998 only a few thought so in the corresponding institutions.
TABLE 4. Student assessment about the generality of smoking on school grounds by institution in 1987 and 1998 (%).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>quite/very common</td>
<td>86.3 90.8</td>
<td>84.4 94.1</td>
<td>62.2 89.3</td>
<td>65.8 84.4</td>
</tr>
<tr>
<td>don’t know</td>
<td>8.9 6.6</td>
<td>12.1 4.2</td>
<td>17.0 6.3</td>
<td>9.0 6.5</td>
</tr>
<tr>
<td>quite uncommon/no smoking at all</td>
<td>4.8 2.6</td>
<td>3.5 1.7</td>
<td>20.8 4.4</td>
<td>25.2 9.1</td>
</tr>
</tbody>
</table>

Of all students, a good 75 percent supported the present smoking practice, that is, allowing smoking only at outdoor smoking points. About eight percent of the students would have liked to have a smoking room inside the school building, 11 per cent thought smoking should be banned in school altogether. About five percent of the students would allow smoking everywhere, the students of commercial institutions more often so than the others.

Compared with 1987, more students thought smoking in educational institutions should be totally banned or be allowed only at outdoor smoking points. The number of supporters of the smoking room had decreased in all forms of educational institutions. Only the students of vocational institutions and commercial institutions were more ready than before to allow smoking everywhere.

4.3 Smoking habits

A majority (83 %) of students had at some time tried smoking. The fewest of trials were reported by the students of the senior secondary schools (75 %) and the most by the students of the health care institutions (92 %).

Compared with 1987, the proportions of those who had tried smoking had increased in all institutions except in vocational institutions, in which the proportion of experimenters had decreased by about two percent. Growth was strongest among the students of health care institutions, of whom almost 92 percent had tried smoking in 1998, compared with 85 percent in 1987.

The smoking habits of students in various educational institutions were different (Table 5). The female students of the vocational institutions (46.5 %) and the male students of the commercial institutions (44.1 %) smoked most. The male students in senior secondary schools smoked least (13.5 %). Only in senior secondary schools and among the male students of the health care institutions did the number of daily smokers remain below 40 percent.
TABLE 5. Smoking habits by sex and institution (%)

<table>
<thead>
<tr>
<th>Smoking Habit</th>
<th>Vocational Institutions</th>
<th>Commercial Institutions</th>
<th>Health Care Institutions</th>
<th>Senior Secondary Schools</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>not smok.</td>
<td>41.1</td>
<td>38.6</td>
<td>39.8</td>
<td>37.2</td>
<td>34.8</td>
</tr>
<tr>
<td>quit temp./perm.</td>
<td>5.0</td>
<td>3.5</td>
<td>2.7</td>
<td>7.3</td>
<td>4.3</td>
</tr>
<tr>
<td>occasionally</td>
<td>11.0</td>
<td>11.4</td>
<td>13.5</td>
<td>14.0</td>
<td>26.0</td>
</tr>
<tr>
<td>daily</td>
<td>42.8</td>
<td>46.5</td>
<td>44.1</td>
<td>41.5</td>
<td>34.8</td>
</tr>
</tbody>
</table>

When examining the proportion of daily smokers by the age group, it could be stated as a general observation that the proportion of smokers increased from the youngest age group to the older groups. Only smoking among the female students of the commercial institutions was less among those over 18 than in younger age groups. Daily smoking among the female students of the vocational institutions, too, decreased (2.1 %) among those over 18, compared with the group of 17 to 18 years old.

When comparing the proportions of daily smokers with the corresponding proportions from the questionnaire in 1987, it was found that the proportion of daily smokers had increased in all forms of educational institutions (Figure 4). The highest number of daily smokers both in the spring of 1987 and in the spring of 1998 was found among students of vocational institutions. The increase in the number of daily smokers was highest among the students of health care institutions. Daily smoking among the female students had increased more than among the male students, over 6 percent as compared with three percent for the male students.
4.4 Changes in smoking habits during the school year

About 72 percent of all students reported either having remained non-smokers or still smoking as much as at the beginning of the school year. One student in ten had started smoking or increased it. About 17 percent of the students reported having decreased smoking or stopped it.

When comparing the situation in 1998 with the situation in the school year 1986-1987, it could be found that there were more changes than before (Table 6). In general, however, it seemed that the smoking habits of the students were quite settled.
TABLE 6. Stability of students’ smoking behaviour during school year in 1987 and 1998 (%).

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>remained non-smoking</td>
<td>45.2 41.0</td>
<td>47.0 40.0</td>
<td>59.2 46.0</td>
<td>68.7 61.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>started/increased</td>
<td>8.3 11.4</td>
<td>9.2 10.5</td>
<td>10.4 9.2</td>
<td>6.2 8.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>quit/decreased</td>
<td>19.5 17.7</td>
<td>16.5 20.0</td>
<td>14.9 21.5</td>
<td>11.5 14.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>remained stable</td>
<td>26.9 29.8</td>
<td>27.4 29.4</td>
<td>15.5 23.3</td>
<td>13.5 16.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.5 Number of cigarettes smoked daily

The regular smokers were asked how many cigarettes they smoked daily. Almost half (48 %) reported they smoked 1-9 cigarettes a day. Of the daily smokers 38 percent reported that they smoked 10-19 cigarettes a day, 14 percent reported they smoked 20 cigarettes or more a day. The consumption of cigarettes by the male students was higher than by the female students in all forms of educational institutions.

There was change in the number of cigarettes smoked daily, compared with 1987. The consumption of cigarettes had decreased: more smoked less than 9 cigarettes a day, instead of 10-19 as before. Only in health care institutions and senior secondary schools had the proportion of heavy smokers (20 cigarettes or more) among students slightly increased (Figure 5).

FIGURE 5. Number of cigarettes smoked daily by institution, spring 1987 and spring 1998.
The smoking students were asked how often they smoked in their own homes, on school grounds or outside school grounds. Smoking on school grounds was common: almost 90 percent of the smokers in all institutions reported doing it every day. Outside school grounds during schoolday was reported by two thirds, and about half of the students reported smoking daily in their own homes. Smoking on school grounds was most common among the students of health care institutions and commercial institutions. Smoking outside school grounds was most common among the male students of the commercial and health care institutions as well as senior secondary schools.

4.6 Motives for smoking

Students smoking daily were asked their reasons for smoking, using 13 variables. No notable differences were found between male and female students in estimating the importance of reasons for smoking, nor between the educational institutions. The reasons overwhelmingly pointed to the fact that smoking was perceived as a habit. The following positions in the ranking were occupied by factors related to tobacco itself, especially the calming effect. Students did not admit they smoked because of pressure from others or the example of their parents. Compared with the year 1986, the order of importance of reasons for smoking had remained almost unchanged (Figure 6). Instead, a larger proportion of students emphasized the importance of reasons leading to smoking. For example, the influence of friends who smoked was emphasized by more than a quarter of the students, as compared with 18 percent in 1986.

![FIGURE 6. Reasons for smoking (%)](image-url)
4.7 Smoking in immediate community

The smoking behaviour of students was examined by comparing smoking in the immediate community of non-smoking and daily smoking students. Smoking by close friend seemed to be connected with the student’s own smoking. Of the daily smokers, 84 percent reported that their best friend also smoked, as, correspondingly, 71 percent of the non-smokers had a non-smoking best friend. Smoking by mother, father or siblings did not have as clear a connection with the student’s smoking behaviour. The boyfriends of the female students smoked more than the girlfriends of the male students. Less than one fifth of the male students reported that their girlfriend smoked, and only one third of the female students had a smoking boyfriend. Smoking on the part of a boyfriend or girlfriend, too, seemed to be connected with smoking behaviour so that the daily smoker was more likely to have a girlfriend/boyfriend who smoked than one who did not, and with the non-smokers the other way round.

4.8 Attitudes towards cigarette smoking

The student questionnaire contained 26 attitude statements on cigarette smoking and smoking-related health education evaluated by the respondents on a five-point scale from ”totally agree” to ”totally disagree”. The statements were scored and they were formed into sum variables. The larger the sum score a student received from an item, the more negative was his attitude towards smoking, and vice versa.

Compared with the results of 1987, a more positive attitude towards smoking had gained ground in all forms of educational institutions, most of all among the students of health care institutions. The students of vocational institutions clearly had the most positive attitude towards smoking, the students of senior secondary schools the most negative. Daily smokers had a more positive attitude than others towards smoking, non-smokers more negative than others. The more one smoked, the more positive attitude one had towards smoking and the more negative attitude towards restrictions on smoking.

Changes in student attitudes from the measurement in 1987 to the measurement in 1998 were also examined individually, one item at a time (Appendix 4). Below, the results are examined for the part of those statements where changes in attitudes were biggest (Table 7). The proportion of those with a positive attitude towards tobacco advertising had increased most, almost 30 percent. More and more students accepted smoking in their immediate community and considered a permissive attitude towards smoking liberal. The idea of the calming effect of smoking, too, had spread. The effect of health education on cigarette smoking was not considered significant, even though, on the other hand, there was a more positive attitude towards education about the health risks of smoking. The proportion of those students who thought parents should accept smoking by their child at the age in question, had also decreased.
TABLE 7. Changes in attitudes towards smoking between years 1987 and 1998 (%)

<table>
<thead>
<tr>
<th>Item</th>
<th>year 1987</th>
<th>year 1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item (1)</td>
<td>Advertising about cigarettes ought not to be allowed (Disagree)</td>
<td>20.6</td>
</tr>
<tr>
<td>Item (3)</td>
<td>I am tired of hearing about the health hazards of cigarette smoking (Agree)</td>
<td>45.3</td>
</tr>
<tr>
<td>Item (4)</td>
<td>If schools had more teaching about smoking and health, fewer students would smoke (Disagree)</td>
<td>39.6</td>
</tr>
<tr>
<td>Item (8)</td>
<td>Smoking has a calming effect (Agree)</td>
<td>35.4</td>
</tr>
<tr>
<td>Item (10)</td>
<td>I accept smoking on the part of others in my immediate environment (Agree)</td>
<td>64.3</td>
</tr>
<tr>
<td>Item (11)</td>
<td>Those who limit cigarette smoking are narrow-minded (Agree)</td>
<td>16.5</td>
</tr>
<tr>
<td>Item (14)</td>
<td>To allow smoking of cigarettes equals tolerance (Agree)</td>
<td>20.9</td>
</tr>
<tr>
<td>Item (24)</td>
<td>Parents ought to accept smoking at my age (Agree)</td>
<td>42.1</td>
</tr>
<tr>
<td>Item (25)</td>
<td>At my present school health education ought to be taught more than was taught at comprehensive school (Disagree)</td>
<td>31.2</td>
</tr>
</tbody>
</table>

4.9 The experienced ill-effects of smoking

Students were asked to estimate how they experienced the immediate ill-effects of smoking to themselves and to non-smokers. The immediate ill-effects of smoking to non-smokers were most commonly reported to be an unpleasant feeling (47 %), a headache (29 %) and allergic symptoms (14 %).

60 percent of the students believed smoking caused bad breath, 45 percent an irritation cough and 25 percent lung cancer. Allergic symptoms were connected with one’s own smoking only by 8 percent. The estimate is lower than in the measurement of 1986, when 12 percent of the subjects connected allergic symptoms with one’s own smoking.

4.10 Smoking at future occupation

4.10.1 Student assessment about smoking at future occupation

Students were asked to estimate the frequency of smoking at their future occupation. Of senior secondary school students 15 percent believed those working at their future
occupation would hardly smoke at all, as against the students in health care institutions of whom only about one percent shared such a belief. More than half of the students in vocational institutions presumed there would be quite many smokers at their own future occupation.

Compared with 1987, a larger proportion than before of the students in health care institutions believed workers at their future occupation would smoke quite heavily (Figure 7). The estimates of the students in vocational institutions had remained almost unchanged. The students of commercial institutions were the only group whose opinion of the small amount of smoking at their future occupation had strengthened.

When asked for an estimate of smoking by students in vocational institutions as compared with students in senior secondary schools, 62 percent of senior secondary school students estimated that students in vocational institutions smoked more often than they themselves. About half of the students in vocational institutions estimated smoking was as common in both forms of institutions. The situation was the same in the study on 1986.

**FIGURE 7.** Student assessment about smoking at future occupation by institution in 1987 and 1998 (%).

4.10.2 One´s own intended smoking at a future occupation

Evaluation of one´s own smoking at a future occupation showed differences between various forms of educational institutions. One third of the students in vocational institutions intended to smoke at a future occupation, as against only one senior secondary school student in ten. More than half of the senior secondary school students and more than a third of the students in other forms of educational institutions intended not to smoke at future occupation.
Compared with 1987, intentions regarding smoking at a future occupation had increased in all forms of educational institutions (Figure 8). The intentions concerning smoking of the students in health care institutions had almost doubled. Among the students of vocational institutions the proportion of absolute non-smokers had slightly increased, as in all other forms of educational institutions it had decreased. Even though the intentions regarding smoking at a future occupation had increased, estimated levels were still lower than present daily smoking among students.

FIGURE 8. Evaluation of one’s own intended smoking at future occupation by institution in 1987 and 1998 (%).
5 ALCOHOL AND DRUGS

5.1 The use of alcohol

The frequency of the use of alcohol was studied by asking the students how often they use alcohol all in all. According to the results, almost all students (94 %) had at some time tried alcohol, only nine percent were nowadays total abstainers. Almost one student in two used alcohol at least once a month, more than one student in five weekly.

Compared with 1987, alcohol was used more often (Table 8). The weekly use of alcohol had increased in all educational institutions. Most alcohol was used by students in vocational institutions, least by students in senior secondary schools. The proportion of non-drinkers had decreased, most in senior secondary schools.

TABLE 8. The use of alcohol by institution in 1987 and 1998 (%).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all</td>
<td>10.9</td>
<td>9.6</td>
<td>7.6</td>
<td>6.3</td>
<td>8.1</td>
<td>9.9</td>
<td>15.8</td>
<td>9.0</td>
</tr>
<tr>
<td>a few times a year</td>
<td>30.1</td>
<td>18.7</td>
<td>31.0</td>
<td>22.8</td>
<td>32.7</td>
<td>22.4</td>
<td>47.1</td>
<td>34.8</td>
</tr>
<tr>
<td>at least once a month</td>
<td>45.0</td>
<td>45.0</td>
<td>50.2</td>
<td>49.4</td>
<td>47.6</td>
<td>48.4</td>
<td>33.1</td>
<td>43.3</td>
</tr>
<tr>
<td>at least once a week</td>
<td>14.0</td>
<td>26.7</td>
<td>11.3</td>
<td>21.6</td>
<td>11.7</td>
<td>19.3</td>
<td>4.0</td>
<td>12.9</td>
</tr>
</tbody>
</table>

A larger part of the students (43 %) used alcohol as much in the spring as at the beginning of the school year (Table 9). The male students had increased their use of alcohol more than the female students, who also had decreased use of it more than male students. The male students of the senior secondary schools had increased the use of alcohol most during the school year.

TABLE 9. Changes in the use of alcohol by students during school year by institution (%).

<table>
<thead>
<tr>
<th>use of alcohol</th>
<th>Vocational Institutions M</th>
<th>Vocational Institutions F</th>
<th>Commercial Institutions M</th>
<th>Commercial Institutions F</th>
<th>Health Care Institutions M</th>
<th>Health Care Institutions F</th>
<th>Senior Secondary Schools M</th>
<th>Senior Secondary Schools F</th>
</tr>
</thead>
<tbody>
<tr>
<td>remained non-drinking</td>
<td>18.1</td>
<td>12.2</td>
<td>15.6</td>
<td>9.9</td>
<td>8.7</td>
<td>11.3</td>
<td>18.8</td>
<td>15.6</td>
</tr>
<tr>
<td>started/increased</td>
<td>18.6</td>
<td>15.8</td>
<td>20.1</td>
<td>15.1</td>
<td>8.7</td>
<td>7.5</td>
<td>23.5</td>
<td>19.4</td>
</tr>
<tr>
<td>stopped/decreased</td>
<td>21.5</td>
<td>26.1</td>
<td>20.7</td>
<td>35.6</td>
<td>39.1</td>
<td>33.8</td>
<td>15.4</td>
<td>25.0</td>
</tr>
<tr>
<td>remained stable</td>
<td>41.8</td>
<td>46.0</td>
<td>43.6</td>
<td>39.5</td>
<td>43.5</td>
<td>47.4</td>
<td>42.3</td>
<td>40.0</td>
</tr>
</tbody>
</table>
5.1.1 Intoxicating use of alcohol

The intoxicating use of alcohol by students was inquired by asking, "How often do you use alcohol up to serious intoxication?" More than one third of all students reported they had been seriously intoxicated at least once a month. One student in ten got drunk once a week or more often.

The students in vocational institutions and commercial institutions got drunk more often than others, senior secondary school students less often than others. Serious weekly intoxication was most common in vocational and commercial institutions (Figure 9).

![Figure 9. Cases of serious intoxication at least once a month by institution (%).](image)

Compared with 1987, the intoxicating use of alcohol had increased in all forms of educational institutions. Getting drunk at least once a month had increased most strongly among the students of health care institutions, as had the 1998 total for the latter being more than three times that of 1987.

Of the headmasters, 57 percent reported of some kind of problems in their educational institutions caused by student drinking of alcohol. The problems were chiefly connected with absences caused by drinking, poor school achievement and tiredness during school day. According to the headmasters, problems and disturbances also happened at evening gatherings and at student residences.

5.2 The use of drugs

The use of drugs by students was studied by inquiring about their own drug experiments and those of their circle of friends. Over one third reported they knew one or more students who had experimented with drugs during the previous year (Table 10). The male students of the commercial institutions and the female students of the senior secondary schools knew the most experimenters of drugs in their circle of friends, the students of health care institutions knew the least among their student friends.
TABLE 10. Knowledge of drug experiments by friends by sex and institution.

<table>
<thead>
<tr>
<th>Knowledge of experimenters</th>
<th>Vocational Institutions</th>
<th>Commercial Institutions</th>
<th>Health Care Institutions</th>
<th>Senior Secondary Schools</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>no one</td>
<td>69.4</td>
<td>66.3</td>
<td>50.8</td>
<td>64.1</td>
<td>82.6</td>
</tr>
<tr>
<td>1-5</td>
<td>24.1</td>
<td>28.9</td>
<td>39.1</td>
<td>33.3</td>
<td>17.3</td>
</tr>
<tr>
<td>more than 5</td>
<td>6.4</td>
<td>4.8</td>
<td>10.1</td>
<td>2.6</td>
<td>-</td>
</tr>
</tbody>
</table>

Of the male students 11.5 percent and of the female students 10.3 percent reported having used drugs more often than once. Those who had used more than five times or regularly amounted to about six percent. Differences between institutions showed that those who had used drugs more than five times were most often among the students of health care institutions and the male students of the commercial institutions, least often among the female students of the vocational institutions and senior secondary schools (Figure 10).

FIGURE 10. The use of drugs by sex in various institutions (%).

All headmasters saw drugs as some kind of problem in their localities, and almost 30 percent of the headmasters reported drugs caused significant problems in their localities. In 30 percent of the educational institutions there had been some problems caused by student use of drugs, chiefly connected with absences, tiredness and poor school achievement. Problems had also been caused by suspected use of drugs and the possession, distribution and selling of drugs.
6. ANTI-SMOKING HEALTH EDUCATION AND ATTITUDE TOWARDS SMOKING IN EDUCATIONAL INSTITUTIONS

6.1 Headmasters´ views on anti-smoking health education and student smoking questions

A questionnaire was directed to the headmasters of the educational institutions taking part in the research, mapping, among other things, the implementation of the tobacco law in practice, student use of intoxicants and the problems possibly caused by it, and health education. The questionnaire was sent to all the headmasters of the educational institutions taking part in the research (N=31), of which 30 headmasters answered it.

Fewer than two thirds of the headmasters estimated 20 to 30 percent of their students smoked, almost 20 percent estimated at least one student in two smoked. Only one headmasters in ten estimated 15 percent or less of their students smoked.

To the question ”Do your students smoke on school grounds at school time?” almost 90 percent of the headmasters reported that their students smoked on school grounds either occasionally or daily. Smoking on school grounds was common and daily in almost 70 percent of the educational institutions. In only about 13 percent only of the educational institutions did students never smoke on school grounds at school time. Smoking near school grounds at school time was also common, and all educational institutions reported that this happened.

Implementation of the ban on smoking in educational institutions had chiefly been organized by drawing up common rules and by allotting a separate smoking point either on or outside school grounds. According to the headmasters, the smoking points were meant for students over 18 years, but they conceded supervision was either occasional or difficult. In some educational institutions, chiefly in senior secondary schools, smoking was totally prohibited, both inside the school building and on the grounds outside. There was also an effort to restrict smoking by instruction during classes and by giving information about the tobacco law.

According to the headmasters, 40 percent of the educational institutions taking part in this research had an intoxicant programme that defined procedures for intervention with student use of alcohol and drugs. Usually the intoxicant programme meant clarifying the situation through discussions with school public health personnel or student welfare personnel or teachers, which formed a basis for planning the referral to treatment and possible further measures. Often the educational institutions, however, had no special intoxicant programme, but the use and possession of intoxicants as well as being under influence by them was prohibited by the institutions´ regulations, and the use of intoxicants was intervened with when need arose.

The headmasters were asked to name five sectors of health education they thought most important for promoting good health. Based on the headmasters´ priority list, sum scores were formed of the sectors of health education, enabling the researchers to isolate the most important sectors of health education. The head teachers rated highest the sector of physical exercise and health, next highest the sector of intoxicants, smoking and medicine. Food and health, and mental health and human relations were next in priority.
Promotion of ability to function and work, closely connected with physical exercise and health, was not considered very important by the headmasters. Only 5.6 percent of the headmasters rated it among the five most important sectors of health education. (Table 11).

**TABLE 11. Sectors of health education most important for promoting health, as rated by headmasters.**

<table>
<thead>
<tr>
<th>Sector of contents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>physical exercise and health</td>
<td>26.7</td>
</tr>
<tr>
<td>intoxicants, smoking and medicine</td>
<td>18.0</td>
</tr>
<tr>
<td>food and health</td>
<td>15.8</td>
</tr>
<tr>
<td>mental health and human relations</td>
<td>12.8</td>
</tr>
<tr>
<td>public health care</td>
<td>7.8</td>
</tr>
<tr>
<td>promotion of ability to function and work</td>
<td>5.6</td>
</tr>
<tr>
<td>occupational health service</td>
<td></td>
</tr>
<tr>
<td>sexual education</td>
<td>4.2</td>
</tr>
<tr>
<td>accidents and first aid</td>
<td>3.3</td>
</tr>
<tr>
<td>environmental health service</td>
<td>1.1</td>
</tr>
<tr>
<td>total</td>
<td>100</td>
</tr>
</tbody>
</table>

The headmasters were also asked to express their opinion on how best to support student self-esteem in educational institutions. As the main means they saw positive feedback to students, stimulation and encouragement of students, and making success and positive experiences possible. A genuine interest in the student as an individual and giving responsibility were also emphasized by the answers received.

**6.2 Anti-smoking health education as experienced by students**

**Dealing with smoking-related topics in class and on other occasions**

In the spring of 1998 about 75 percent of students recalled that smoking-related topics had been dealt with at least once in class during the school year, while one fourth of students did not recall having received any health education at all about smoking-related topics. The proportion of those students who recalled smoking-related topics having been dealt with had decreased by 10 percent compared with the year 1987.

Two thirds of those students who had received anti-smoking health education reported that smoking-related topics had been dealt with during one or two classes. Only one in ten reported that smoking-related topics had been dealt with during five or more classes. Most of those who had received instruction recalled smoking-related topics had been dealt with during health education classes. In all forms of educational institutions the
public health nurses had delivered anti-smoking health education at their reception. Student counsellors, too, had dealt with smoking-related topics during their classes. In vocational institutions anti-smoking health education had been given abundantly also in connection with vocational training. Smoking-related topics had been discussed at common events, in instruction given by visiting lecturers, and during special subject days. On a few occasions they had also been dealt with by students.

**Student opinions on the effect and contents of anti-smoking health education**

Students were asked for opinions on anti-smoking health education and its effectiveness. Some of the students were of the opinion that one can have an effect on the reduction and prevention of smoking, while most students had changed their opinions in a more critical direction.

![Figure 11: Student opinions on the statement “Anti-smoking health education given in school reduces and prevents student smoking”, by the form of educational institution in 1987 and 1998 (%)](image)

About 67 percent of all students had the opinion that one should be told more than at present in educational institutions about the connections between occupation and smoking, while over 75 percent of all students had this opinion in 1987. The students in health care institutions agreed most strongly (80%) with the statement and, correspondingly, the students in vocational institutions least (64%). The proportion of those agreeing with the statement had decreased since 1987 by five to 10 percent in all educational institutions with the exception of health care institutions.
7. DISCUSSION

Student smoking habits

Smoking had increased in all forms of educational institutions; more so among the female students than among the male students. However, the number of cigarettes smoked daily by students had decreased. This study did not give an answer as to why this had happened, whether the reason for this was a tighter price policy, the sales ban of tobacco products to those under 18, or the supervision by educational institutions based on the new tobacco law. Smoking took place on school grounds, and supervision was insufficient. The restrictions of the tobacco law were not sufficiently reflected in the supervision of sales and smoking, not even according to the answers from students.

A larger proportion than before of all students intended to smoke at future occupation. Those of the students who themselves smoked quite heavily, imagined that would be the case at their future occupation, too. Among the students of health care institutions, the idea of frequent smoking in their professional group had gained ground. Even though a larger proportion than before of the students thought they would smoke at their future occupation, that proportion was, however, smaller than that of the students smoking daily today. This would seem to give room for health education, if it is focused right and properly balanced in its contents.

Attitudes towards smoking

According to the study, the reform of tobacco law did not show itself in the students’ attitudes towards smoking, but rather on the contrary: a positive attitude towards smoking had gained ground in all forms of educational institutions, most of all among the students of health care institutions. This, on the other hand, suggests that smoking among young people will not decrease in the coming years, unless we can influence their attitudes.

Motives for smoking and smoking in the immediate community

Factors due to tobacco itself, especially dependence on nicotine and the idea of tobacco’s calming effect, were among the main reasons for smoking, according to the young people. However, they thought habit was the most important of all reasons for smoking.

The importance of smoking in the near community, especially smoking by friends, came out clearly. A young smoker more probably had a smoking than a non-smoking friend, and the non-smoker had it the other way round. The importance of parents to smoking did not come out clearly. It also seems that the female students are more tolerant of their boyfriends’ smoking than the male students of their girlfriends’ smoking.

There seemed to be a clear connection between an interest in physical exercise and smoking: non-smoking students had more physical exercise than smoking students. The
situation was especially troubling with regard to the female students of the commercial institutions: they had little physical exercise and they smoked quite heavily.

This study could not unravel, why health habits accumulate in this way. This also came out in the study of school year 1986-1987.

**Alcohol and drugs**

It has been found in many studies that smoking and the use of alcohol are connected: students who smoke are also more likely to use alcohol than others and also belong to a risk group, with regard the use of drugs.

The increased use of alcohol by students was not directly noticeable in educational institutions, but it was seen in its effects, among others increased absences and poorer school achievement. At student residences connected with educational institutions drinking and smoking by students had caused problems, for which a partial reason was insufficient supervision. Special attention should, therefore, be directed to the promotion of health at student residences. The students themselves should also be made to participate in this work.

The use of drugs in Finland is still at a low level, in comparison with the international situation. However, at an individual level every drug problem is serious. In addition to dependence and health risks, drugs also cause a serious threat of development towards marginalization. That is why problems must be identified and they must be intervened with in time, by the means of student welfare services and health education.

**Student opinions on anti-smoking health education**

According to student opinion, the amount of received health education had decreased by 10 percent from 1987; one fourth of the subjects did not remember having received any health education during any class. This means that more than 600 students who answered the questionnaire have been left without any anti-smoking health education.

When examining student attitudes towards smoking, there was found a clear discrepancy: the students, true enough, more willingly than before listened to instruction about the health effects of smoking, but did not, however, believe it would affect their smoking behaviour. One may very well wonder, if the significance of health education has diminished. The result may also give rise to serious thought when developing the content of health education and the teaching methods in use. For example, the majority of students (67 %) thought that one should tell more about the connections between occupation and smoking, just like in the study of 1987. One should also consider, if anti-smoking health education should be closely connected with sector-specific education, for example on-the-job learning and within it health and safety at work.
Headmasters and health education

On the first of March, 1995, the new tobacco law which prohibited smoking on school premises, came into force. In spite of this, however, smoking on school premises had increased. On the other hand, because of the new tobacco law, students had moved to smoking outside school premises, which again had caused problems between the educational institution and the immediate surroundings. According to headmasters, the observance and supervision of the tobacco law in educational institutions had completely "got out of hand", the supervision of smoking in educational institutions was occasional and difficult. Parallel results were reported in a study by Liimatainen-Lamberg (1996) almost half of the teachers of vocational institutions and commercial institutions had a negative attitude towards their duty to supervise student smoking. When regulations are made, one should also be able to supervise them.

According to headmasters, because of the new tobacco law educational institutions clearly had become more vigorous with their health education, and the contents had become more versatile, even though the amount of health education had decreased. For promotion of good health, the headmasters named physical exercise and health as the most crucial sector of health education, the following places being taken up by intoxicants, smoking and medicine, as well as food and health. The result was parallel with the opinions of physical education teachers. The answers, especially on drugs, may also convey a growing need of instruction about these topics.

Support from home and learned models are important in health education, even though for students the smoking habits of friends were more significant than those of parents. The headmasters, too, emphasized the significance of homes in learning and preventing the habit of smoking.

The headmasters’ assessments of student smoking were clearly lower than what the students themselves reported. However, assessments by headmasters and students of smoking on school premises were parallel, that is, both stated that smoking was common.

According to headmasters, student use of drugs was difficult to detect or prove, even simply because of the rules on protection of privacy. Drugs were seen in educational institutions often only through indirect problems like absences and poorer school achievement. However, all headmasters had some kind of idea about the use of drugs in their own localities.

According to headmasters, almost half of the educational institutions had some kind of intoxicant programme. Referral to treatment limped because of the users’ own reluctance. A mere intoxicant programme, health education and different punishments as such do not yield results. In order to be a success, anti-drug activities need the cooperation of various partners, especially educational institutions, police, health service personnel and parents, integrated with health education that is well focused and well planned.

There are conflicting views in literature on how much and how, in general, one should be told about drugs. A great deal of quantitative, descriptive and health educational research
has been done recently on youth smoking and use of intoxicants. A few follow-up studies are also available. Research should be directed to the basic reasons for smoking and the use of drugs, making use of the expertise of various fields and the multi-sectoral viewpoint.

**Act on measures to reduce smoking**

When passing a law on the amendment of the Act on measures to reduce smoking (337/1998), the Parliament called for the government to take the promotion of non-smoking among children and youth as the point of emphasis for their policy of reduction of smoking. The government will give an account to the Parliament, in their report on national health, of the measures taken and their results. The law, coming into force on the first of March, 2000, will restrict smoking in the rooms of restaurants, gradually. The new law also takes into consideration the supervision of the sales of tobacco, smoking as a safety risk predisposing to ill-effects of health, and as a significant factor of health and safety at work. If the regulations of the law are enforced true in the future, they will support the efforts of educational institutions towards non-smoking, for example through a longer period of learning at work. The change of restaurants into smokeless is convergent with the goals of health education. Restrictions on smoking have already come into force at workplaces, which has also had a supporting influence on health education.
REFERENCES


QUESTIONNAIRE FOR STUDENTS

PLEASE READ THE COMPLETE QUESTION FIRST AND MARK YOUR RESPONSE THEREAFTER. PLEASE BE AS TRUTHFUL AS YOU CAN.

1. Sex ( ) male ( ) female

2. Year of birth ___________

3. Institution
   ( ) vocational institution
   ( ) commercial institution
   ( ) senior secondary school
   ( ) health care institution

4. Have you ever tried smoking cigarettes?
   ( ) yes
   ( ) no

5. How often do you smoke at present?
   ( ) I do not smoke at all
   ( ) I have quit (temporarily or permanently)
   ( ) Less than once a week
   ( ) each week but not daily
   ( ) daily

6. How many cigarettes do you generally smoke each day?
   about ___________ cigarettes each day

7. How often do you smoke on following places? (answer each item)

   A. At home
      ( ) almost every day
      ( ) more than once a week
      ( ) once a week
      ( ) every now and then
      ( ) never

   B. On school grounds at school time
      ( ) almost every day
      ( ) more than once a week
      ( ) once a week
      ( ) every now and then
      ( ) never
C. Outside the school grounds at school time
(  ) almost every day
(  ) more than once a week
(  ) once a week
(  ) every now and then
(  ) never

8. Reasons for smoking

<table>
<thead>
<tr>
<th></th>
<th>Not important</th>
<th>Rather important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>parents or siblings smoke</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>best friend smokes</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>smoking calms down</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>something to do with hands</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>all friends smoke</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>lessens feelings of loneliness</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>the others exert pressure</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>habit</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>dependence of nicotine</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>gives pleasure</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>it is nice in company</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>gives self assurance</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>helps to concentrate</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>other reasons, what?</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
</tbody>
</table>

9. Do following persons smoke?

<table>
<thead>
<tr>
<th></th>
<th>yes</th>
<th>no</th>
<th>don’t know</th>
<th>doesn’t have</th>
</tr>
</thead>
<tbody>
<tr>
<td>father</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>mother</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>the oldest brother</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>the oldest sister</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>best friend</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>girlfriend (only boys answer)</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
<tr>
<td>boyfriend (only girls answer)</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
<td>(  )</td>
</tr>
</tbody>
</table>

10. How has your smoking/non-smoking changed during this school year?
(  ) I have remained non-smoking
(  ) I have started smoking during this school year
(  ) I have increased smoking
(  ) I have decreased smoking
(  ) I have reduced smoking
(  ) I have quit (temporarily or permanently)
(  ) I am smoking the same amount as in the beginning of the school year
11. What is your opinion about the following smoking-related statements?
Please mark an (x) next to each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Total. agree</th>
<th>Moderat. agree</th>
<th>Diffic. to say</th>
<th>Moderat. disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Advertising about cigarette smoking ought not to be allowed</td>
<td></td>
<td></td>
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<td>3. I am tired of hearing about health hazards of smoking</td>
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<tr>
<td>4. If schools had more teaching about smoking and health, fewer students would smoke cigarettes</td>
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<td>5. Cigarettes ought to be more expensive so that young people would quit smoking</td>
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<td>6. I will smoke at my future occupation since the largest group of the professionals in it do so</td>
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<td>12. Health hazards of smoking do not have much meaning since there are so many other risk factors involved</td>
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<tr>
<td>13. Those friends of mine who smoke are more fashionable and more of an adult than those who do not smoke</td>
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</tr>
<tr>
<td>14. To allow smoking equals tolerance</td>
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<tr>
<td>15. Those who smoke make friends more easily than those who do not smoke</td>
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<tr>
<td>16. Non-smokers have a stronger self-esteem than smokers do</td>
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<tr>
<td>17. The hazards of smoking cigarettes may be removed by engaging in outdoor activities a lot</td>
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<tr>
<td>18. Smoking cigarettes should be allowed everywhere</td>
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<tr>
<td>19. Smokers think only of their own comfort</td>
<td></td>
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<tr>
<td>20. Smokers are more independent than non-smokers</td>
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<tr>
<td>21. Smoking cigarettes is crucially tied to my personality</td>
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<tr>
<td>22. The lung cancer risk caused by cigarette smoking is exaggerated</td>
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<tr>
<td>23. Smoking cigarettes is always worth its price as compared with the obtained pleasure</td>
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<tr>
<td>24. Parents ought to accept smoking at my age</td>
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<tr>
<td>25. At my present school, health education ought to be taught more than was taught at comprehensive school</td>
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<tr>
<td>26. Non-smokers are too narrow-minded towards the smokers</td>
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</tr>
</tbody>
</table>
12. How many of those working in your future occupation do in your opinion Smoke?
   ( ) barely any at all
   ( ) fairly few
   ( ) fairly many

13. Do you think that you will smoke at your future occupation?
   ( ) absolutely not
   ( ) likely not
   ( ) yes, likely
   ( ) yes, absolutely

14. Do you think students of vocational institutions, as compared to students of senior secondary school, smoke
   ( ) much more
   ( ) somewhat more
   ( ) as much
   ( ) somewhat less
   ( ) much less

15. How common is smoking among school students within your school area presently?
   ( ) very common
   ( ) quite common
   ( ) I don’t know
   ( ) no smoking at all

16. What kinds of smoking restrictions does your institution have?
   ( ) totally forbidden
   ( ) allowed within an outside area only
   ( ) allowed within a school smoking room only
   ( ) allowed everywhere

17. What is your opinion about the smoking restrictions at your school?
   ( ) It should to be forbidden
   ( ) It should to be allowed within an outside space only
   ( ) There should be a room for smoking inside the building
   ( ) Smoking should be allowed everywhere

18. How did you learn about restrictions on smoking at your school. (Answer on each source of information)
   ( ) written regulations
   ( ) teacher’s talk
   ( ) signs and boards in school on restrictions
   ( ) student body information

   yes   no
   ( )   ( )
   ( )   ( )
   ( )   ( )
   ( )   ( )
   ( )   ( )
19. Do teachers keep an eye on observance of restrictions
( ) very often
( ) rather often
( ) now and then
( ) never
( ) there are no restrictions

20. What kind of immediate ill-effects do you think are caused by smoking to a smoker? (answer each item)

<table>
<thead>
<tr>
<th>Ill-effects</th>
<th>No</th>
<th>Ill-effects</th>
<th>ill-effects</th>
<th>rather probable</th>
<th>highly probable</th>
</tr>
</thead>
<tbody>
<tr>
<td>smarting of eyes</td>
<td>( )</td>
<td>( )</td>
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<td></td>
<td></td>
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<tr>
<td>foul breath</td>
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<tr>
<td>danger of fire</td>
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<tr>
<td>unpleasant feeling</td>
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<tr>
<td>stomachache</td>
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<tr>
<td>headache</td>
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<tr>
<td>allergig symptoms</td>
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<tr>
<td>irritation cough</td>
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<tr>
<td>lung cancer</td>
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<tr>
<td>difficulties with concentration</td>
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<tr>
<td>irritability</td>
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</tbody>
</table>

What other ill-effects do you think are caused to a smoker?

21. What kind of immediate ill-effects do you think are caused by smoking to a non-smoker? (answer each item)

<table>
<thead>
<tr>
<th>Ill-effects</th>
<th>No</th>
<th>Ill-effects</th>
<th>ill-effects</th>
<th>rather probable</th>
<th>highly probable</th>
</tr>
</thead>
<tbody>
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<tr>
<td>foul breath</td>
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<tr>
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<tr>
<td>irritability</td>
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</tbody>
</table>

What other ill-effects do you think are caused to a smoker?
22. Try to remember how many lessons dealt with smoking related topics during this school year (fall semester of 1997 and spring semester of 1987)
( ) not one lesson
( ) one - two lessons
( ) three - four lessons
( ) five - six lessons
( ) seven or more lessons

23. Try to remember which lesson dealt with smoking-related topics and in what connections. It was at / during or from
( ) health education / science lesson
( ) guidance session / lesson
( ) headmaster’s lesson
( ) vocational lesson
( ) school nurse’s station
( ) school psychologist or social worker’s office
( ) dormitory staff
( ) guest lecturer
( ) remedial instructional student
( ) health education theme days
( ) public events at school
( ) some other event, which one____________________________

24. What is your opinion about the following statement: ” Cigarette smoking-related health education at school reduces and prevents smoking among students" ?
( ) I totally agree
( ) I moderately agree
( ) It is difficult to say
( ) I moderately disagree
( ) I totally disagree

25. In my mind, there ought to be more information about the connection between an occupation and cigarette smoking.
( ) totally agree
( ) moderately agree
( ) moderately disagree
( ) totally disagree

26. Have you ever tasted alcohol? (For example beer, wine, cider, liquour or hard liquour such as vodka)
( ) no
( ) yes
27. How often do you take alcohol nowadays? Try and count also those times you only took a very small amount of alcohol or a few sips only
   ( ) I do not use alcohol at all
   ( ) Once a year or less frequently
   ( ) At least twice a year, but not every month
   ( ) At least once a month, but not every week
   ( ) Once a week or more often

28. How often do you use alcohol up to serious intoxication?
   ( ) I do not use alcohol at all
   ( ) Once a year or less frequently
   ( ) At least twice a year, but not every month
   ( ) At least once a month, but not every week
   ( ) Once a week or more often

29. How has your present use of alcohol changed during the current school year?
   ( ) I have stayed a non-drinker
   ( ) I have started using alcohol during this school year?
   ( ) I have increased my use of alcohol
   ( ) I have decreased my use of alcohol
   ( ) I use alcohol the same amount as at the beginning of school year

30. Do you know someone among your student friends in school who during the last year might have tried drugs? (hashis, thinner or other stuff for snifing, intoxicating medicine or something of the sort?) (Does not apply to alcohol)
   ( ) I do not know anyone experimenting
   ( ) I know one experimenter
   ( ) I know 2-5 experimenters
   ( ) I know more than 5 experimenters

31. Have you ever tried or used drugs?
   ( ) never
   ( ) once
   ( ) 2-4 times
   ( ) five times or more
   ( ) I use regularly
32. How many hours a week do you use in physical exercise during your free-time?
( ) four hours or more
( ) about 2-3 hours
( ) about an hour
( ) about half an hour
( ) not at all

33. What do you think about your health? Is it at present
( ) very good
( ) rather good
( ) average
( ) rather poor
( ) very poor

34. How often do you have the following symptoms? Cross every symptom

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Almost daily</th>
<th>More than once a week</th>
<th>About once a month</th>
<th>Less frequently or never</th>
</tr>
</thead>
<tbody>
<tr>
<td>headache</td>
<td>( )</td>
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<tr>
<td>stomachache</td>
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<tr>
<td>backache</td>
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<tr>
<td>feeling low</td>
<td>( )</td>
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<tr>
<td>irritation</td>
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<tr>
<td>nervousness</td>
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<tr>
<td>sleeping troubles</td>
<td>( )</td>
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<tr>
<td>dizziness</td>
<td>( )</td>
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</tr>
</tbody>
</table>
1. Name of vocational institution/ senior secondary school ____________

2. Number of students ____________

3. Proportion of students smoking, approximately ____________%

4. Smoking by students on school grounds during school time
   ( ) None
   ( ) Some students smoking occasionally on school grounds
   ( ) Several students smoking daily on school grounds

5. Smoking by students near school grounds
   ( ) None
   ( ) Some students smoking occasionally near school grounds
   ( ) Several students smoking daily near school grounds

6. How has the ban on smoking been organized in your school?

7. Problems due to use of alcohol within school?
   ( ) None
   ( ) A little
   ( ) A lot

   What kind of problems? ________________________________

8. How great a problem are the drugs in your locality at present?
   ( ) No problem
   ( ) A small problem
   ( ) A significant problem

9. Has your school faced problems due to use of drugs by students?
   ( ) None
   ( ) Somewhat
   ( ) A lot

   What kind of problems? ________________________________
10. Has your school got an intoxicant programme with agreed procedures of interfering with student use of drugs?

( ) No
( ) Yes

Describe your procedures and your intoxicant programme (if there is written material about the programme, please attach a copy to the reply letter)

____________________________________________________________

____________________________________________________________

11. Please number five content areas of health education that you think are most important for health promotion

( ) Public health work
( ) Intoxicants and smoking, medicine
( ) Physical exercise and health
( ) Food and health
( ) Mental health and human relations
( ) Sex education
( ) Accidents and first aid
( ) Environmental health care
( ) Occupational health care
( ) Promoting ability to function and work
( ) Other area, what ________________________

12. How could student self-esteem best be supported in an educational institution?

____________________________________________________________

____________________________________________________________
TABLE 1. Symptoms felt by students more than once a week

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Vocational Institutions M</th>
<th>F</th>
<th>Commercial Institutions M</th>
<th>F</th>
<th>Health Care Institutions M</th>
<th>F</th>
<th>Senior Secondary School M</th>
<th>F</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>irritable-bad temper</td>
<td>22.1</td>
<td>39.9</td>
<td>22.9</td>
<td>42.4</td>
<td>16.7</td>
<td>24.0</td>
<td>25.9</td>
<td>33.5</td>
<td>27.9</td>
</tr>
<tr>
<td>nervous</td>
<td>22.8</td>
<td>31.7</td>
<td>20.0</td>
<td>30.0</td>
<td>16.7</td>
<td>23.0</td>
<td>21.6</td>
<td>26.1</td>
<td>24.5</td>
</tr>
<tr>
<td>headache</td>
<td>16.3</td>
<td>33.2</td>
<td>12.5</td>
<td>36.8</td>
<td>4.2</td>
<td>29.3</td>
<td>9.1</td>
<td>25.1</td>
<td>20.4</td>
</tr>
<tr>
<td>backache</td>
<td>16.9</td>
<td>18.4</td>
<td>19.1</td>
<td>24.8</td>
<td>13.0</td>
<td>17.0</td>
<td>15.5</td>
<td>14.1</td>
<td>17.2</td>
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<tr>
<td>feeling low</td>
<td>13.8</td>
<td>21.6</td>
<td>16.0</td>
<td>20.0</td>
<td>0</td>
<td>9.2</td>
<td>18.4</td>
<td>20.1</td>
<td>16.6</td>
</tr>
<tr>
<td>sleeping difficulties</td>
<td>14.1</td>
<td>17.7</td>
<td>18.0</td>
<td>22.5</td>
<td>17.3</td>
<td>16.8</td>
<td>16.9</td>
<td>17.1</td>
<td>16.4</td>
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<tr>
<td>dizziness</td>
<td>13.2</td>
<td>18.2</td>
<td>13.2</td>
<td>26.0</td>
<td>8.3</td>
<td>10.8</td>
<td>16.8</td>
<td>19.4</td>
<td>15.9</td>
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<tr>
<td>stomachache</td>
<td>6.9</td>
<td>20.4</td>
<td>9.0</td>
<td>17.0</td>
<td>4.3</td>
<td>14.5</td>
<td>8.7</td>
<td>12.5</td>
<td>10.9</td>
</tr>
<tr>
<td>1. Advertising about cigarette smoking ought not to be allowed</td>
<td>60.9</td>
<td>33.6</td>
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<tr>
<td>2. Smoking should not be allowed in discoes / dance halls</td>
<td>44.0</td>
<td>49.1</td>
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<tr>
<td>3. I am tired of hearing about health hazards of smoking</td>
<td>45.0</td>
<td>20.7</td>
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<tr>
<td>4. If schools had more teaching about smoking and health,</td>
<td>21.2</td>
<td>20.9</td>
<td></td>
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<tr>
<td>Fewer students would smoke</td>
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<td></td>
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<tr>
<td>5. Cigarettes ought to be more expensive so that young people would quit smoking</td>
<td>32.0</td>
<td>34.4</td>
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<tr>
<td>6. I will smoke at my future occupation since the largest group of the professionals in it do so</td>
<td>6.2</td>
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<td></td>
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<tr>
<td>7. Smoking is unpleasant</td>
<td>55.6</td>
<td>52.5</td>
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<tr>
<td>8. Smoking has a calming effect</td>
<td>35.4</td>
<td>42.7</td>
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<tr>
<td>9. Smoking gives assurance in a new situation</td>
<td>18.3</td>
<td>18.7</td>
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<tr>
<td>10. I accept smoking on the part of others in my immediate environment</td>
<td>64.3</td>
<td>74.9</td>
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<td>17.9</td>
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<tr>
<td>There are so many other risk factors involved</td>
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<td>Than those who do not smoke</td>
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<td>14. To allow smoking of cigarettes equals tolerance</td>
<td>20.9</td>
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<td>15. Those who smoke make friends more easily than those who do not smoke</td>
<td>8.3</td>
<td>13.4</td>
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<td>16. Non-smokers have a stronger self-esteem than smokers do</td>
<td>17.9</td>
<td>23.4</td>
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<td>17. The hazards of smoking cigarettes may be removed by engaging in outdoor activities a lot</td>
<td>13.5</td>
<td>13.4</td>
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<td>18. Smoking cigarettes should be allowed everywhere</td>
<td>7.2</td>
<td>12.0</td>
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<td>19. Smokers think only of their own comfort</td>
<td>26.5</td>
<td>26.3</td>
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<td>20. Smokers are more independent than non-smokers</td>
<td>5.4</td>
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<td>21. Smoking cigarettes is crucially tied to my personality</td>
<td>10.9</td>
<td>13.8</td>
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<td>22. The lung cancer risk caused by cigarette smoking is exaggerated</td>
<td>13.8</td>
<td>15.1</td>
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<td>23. Smoking cigarettes is always worth its price as compared with the obtained pleasure</td>
<td>9.9</td>
<td>13.0</td>
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<td>24. Parents ought to accept smoking at my age</td>
<td>42.1</td>
<td>36.7</td>
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<td>25. At my present school, health education ought to be taught more than was taught at comprehensive school</td>
<td>31.2</td>
<td>23.5</td>
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<td>26. Non-smokers are too narrow-minded towards the smokers.</td>
<td>17.2</td>
<td>17.5</td>
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