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## Academic Freedom for High School Students

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# Academic Freedom for High School Students

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It has often occurred to me that my advanced science class students were being handicapped somewhat



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by being forced to attend class routinely throughout the school year. Sometimes they have conflicts with other course work, with extra - curricular activities and sometimes they

are forced to sit through lectures and discussions about topics with which they are quite familiar. I have often felt that these situations lead to half-hearted attempts to do work for one class while some other more important (to the student) event hangs over their heads.

To make an attempt to find out what the effects of a little more academic freedom might have on some students, the following study was conducted. A class of nineteen Advanced Biology students, (Junior and Seniors with an average I. Q. of 120) were divided into two groups of equal

ability. I. Q., Reading Comprehension, Mathematics Ability and Vocabulary scores as measured by ITED were used as a basis for this grouping. The groups were called the Daily Lecture-Discussion Group and the Self Study Group. A short two week unit of study dealing with biometrics was used as the subject matter for this study. The daily lecture-discussion group was required to attend eight hours of class during the two weeks, they were involved in a normal classroom experience. The self study group was never required to appear in the classroom, however three, twenty minute question and discussion periods were provided at intervals during the two weeks, thus giving the self study group a chance to talk with the teacher if necessary. Both groups were provided the same comprehensive text materials and a series of biometrics problems to be worked and handed in at specific dates. Both groups were given a pre-test, post-test (for a grade in the

TABLE I

	Pre-Test mean	Post-Test mean	Post-Post-Test mean
Lecture-Discussion .....	9.6	31.9	28.9
Self Study Group .....	13.0	33.2	25.5

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course), and a post-post-test (unan-

course) and a post-post-test (unannounced, three and one-half months later).

Table I gives the group results of these tests. Forty points was a perfect score on each test.

A t-test was applied to the means of the two groups for each test and no significant difference was found between the means of the various tests. There was however, a significant increase in the post-test mean over the pre-test mean and also a significant drop from post-test to post-post-test in the self-study group as is to be expected from looking at the raw data above.

From the above data and from the data presented by recent research being done with Audio-Tutorial instruction (1), programmed learning (2) and the use of T.V. in teaching (3), it appears that good students can successfully operate in a less

structured situation than now being employed in the typical classroom in most school systems.

I personally feel that short units or intervals of self study, spaced throughout the academic year would provide a beneficial "change of pace" for high ability high school students, giving them some "Academic Freedom" that they could use profitably during their high school years and also provide a "preview" for the type of study necessary at the college level.

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### Article I. Name

This organization shall be known as the Iowa Science Teachers Section of the Iowa Academy of Science.

### Article II. Membership

**Section 1.** Any teacher of science in the state of Iowa, any supervising or administrative officer of any school in the state of Iowa, and any other person interested in or concerned with the teaching of science in Iowa may become an active member of the section by paying the required annual dues and applying for membership through the section secretary, membership chairman, or secretary-treasure of the Iowa Academy of Science.

**Section 2.** The membership year shall coincide with the calender year as with all other sections of the Academy. However, the yearly activities will be organized and the officers elected for the academic year (from fall meeting to fall meeting.) Members joining in the fall will recieve the journal upon payment of dues although offical membership will not begin until the following January. Members joining between January 1 and the time of the spring meeting will be considered members for the calender year. They will recieve earlier issues of the journal and will be listed as members for the entire year although the action will be retroactive.