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AN ASSESSMENT OF APPLIED BIOLOGICAL SCIENCE  
INTERESTS OF SEVENTH GRADE STUDENTS<sup>1</sup>

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Young people in the junior high school have completed at least six years of basic education in reading, mathematics, science, and social studies. These formal educational experiences, along with the away-from-school experiences, influence the exploratory spirit of youth in this age group.

Young people should plan their high school course program toward an identified post-high school goal. This goal will likely be (1) a job; (2) a 13th to 15th year program in technical or para-

professional education; or (3) a college baccalaureate program. An effective occupational guidance program should help the young person identify his vocational interests, so the decisions he makes concerning the high school courses will lead toward the post-high school goal he has selected.

### Procedure

The "Applied Biological and Agri-Business Interest Inventory"<sup>2</sup> was administered to a stratified random sample of 1286 seventh grade students in Nebraska. This sample group, as shown in Table 1, represented 10.6 percent of the seventh grade students in Nebraska in 1970.

TABLE 1  
NUMBER OF 7TH GRADE STUDENTS IN THE RANDOM  
SAMPLE, BY SCHOOL CLASS GROUP

School Class Group	Number of Schools	Number of Students
1. Districts with grades K-8 only with seven or more teachers	1	11
2. Districts of under 1,000 population with grades K-12	6	103
3. Districts of 1,000 to 50,000 population with grades K-12	9	595
4. Districts of 50,000 to 200,000 population with grades K-12	3	162
5. Districts of over 200,000 population with grades K-12	5	261
6. Districts organized with grades 7-12 only	1	57
7. State operated elementary schools	1	17
8. Districts with grades K-8 with six or less teachers	5	80
TOTAL	31	1286

The 100 item Interest Inventory was designed to measure learned interest relative to animals, plants, mechanics and business. A general interest score and four part scores were calculated for each student. A general interest and/or part score of 62-100 was defined as a high interest. Students with scores between 42-61 were defined as having a middle interest, and those with scores below 42 were defined as having a low interest.

## Results

Table 2 shows the number and percent of students receiving high, middle, and low interest scores by school class group. Slightly over 28 percent of all students tested received high interest scores. Almost two-thirds, or 65.6 percent of the students received a middle score or higher. The range was 56.3 percent of the seventh graders in school class group 4 to 83.5 percent of the seventh graders in school class group 2 who received a middle score or higher.

TABLE 2

NUMBER AND PERCENT OF STUDENTS COMPLETING THE  
APPLIED BIOLOGICAL AND AGRI-BUSINESS INTEREST  
INVENTORY, WITH HIGH, AVERAGE, AND LOW GENERAL  
INTEREST SCORES BY SCHOOL, BY SCHOOL CLASS GROUP

School Class Group	Number of Students						Total
	High Score	Per- cent	Middle Score	Per- cent	Low Score	Per- cent	
1	1	9.3	6	54.5	4	36.2	11
2	48	46.5	38	37.0	17	16.5	103
3	158	26.5	232	39.0	205	34.5	595
4	39	24.1	52	32.2	71	43.7	162
5	50	19.2	99	38.0	112	42.8	261
6	33	57.9	14	24.6	10	17.5	57
7	5	29.4	7	41.2	5	29.4	17
8	<u>31</u>	<u>38.7</u>	<u>33</u>	<u>41.3</u>	<u>16</u>	<u>20.0</u>	<u>80</u>
Total	365	28.2	481	37.4	440	34.2	1286

Table 3 shows the number and percent of students receiving high, middle and low part interest scores in animals. The results indicate that 731 or 56.8 percent of the respondents received a middle or higher part score in animals. Nearly one half of students in school class groups 2, 6, and 8 received high part scores in the animal part of the interest inventory.

TABLE 3

NUMBER AND PERCENT OF STUDENTS COMPLETING THE  
APPLIED BIOLOGICAL AND AGRI-BUSINESS INTEREST  
INVENTORY, WITH HIGH, AVERAGE, AND LOW PART  
INTEREST IN ANIMALS, BY SCHOOL CLASS GROUP

School Class Group	Number of Students						Total
	High Score	Per- cent	Middle Score	Per- cent	Low Score	Per- cent	
1	0	0	3	27.1	8	72.9	11
2	50	48.6	28	27.2	25	24.2	103
3	179	30.2	156	26.2	260	43.6	595
4	32	19.3	42	25.8	88	54.9	162
5	56	21.4	71	27.2	134	51.4	261
6	28	49.2	14	24.6	15	26.2	57
7	4	23.6	9	52.8	4	23.6	17
8	39	48.8	20	25.0	21	26.2	80
TOTAL	388	29.4	343	27.4	555	43.2	1286

Table 4 shows that 522 or 40.5 percent of the seventh graders in the sample received high part interest scores in plants and horticulture. Slightly more than 68 percent of the students in school class group 6 had a high part score. Also shown in the table is that 396 or 30.8 percent of the students in the sample received middle scores. The percent of students receiving middle scores or higher ranged from 60.1 percent in school class group 5 up to 90.7 percent in school class group 1.

Table 5 reveals that 378 or about 29 percent of the students received high part interest scores in mechanics. The data also show that 731 or 56.8 percent received middle or higher interest scores.

Table 6 pertains to students who receive part scores in business items. Fifty percent of the respondents received middle or higher part scores in business. Seventy-one percent of the students in school class group 6, about 64 percent in school group 2, and 55 percent in school group 8 received middle or higher part interest scores in business.

TABLE 4

NUMBER OF STUDENTS COMPLETING THE APPLIED BIOLOGICAL AND AGRIBUSINESS INTEREST INVENTORY WITH HIGH, AVERAGE, AND LOW PARTIAL SCORES IN PLANTS AND HORTICULTURE, BY SCHOOL CLASS GROUP

School Class Group	Number of Students						Total
	High Score	Per- cent	Middle Score	Per- cent	Low Score	Per- cent	
1	7	63.6	3	27.1	1	9.3	11
2	61	59.2	30	29.2	12	11.6	103
3	231	38.8	191	32.1	173	29.1	595
4	58	35.8	54	33.4	50	30.8	162
5	76	29.1	81	31.0	104	39.9	261
6	39	68.4	11	19.3	7	12.3	57
7	7	41.2	7	41.2	3	17.6	17
8	43	53.75	19	23.75	18	22.5	80
TOTAL	522	40.5	396	30.8	368	28.7	1286

TABLE 5

NUMBER OF STUDENTS COMPLETING THE APPLIED BIOLOGICAL AND AGRIBUSINESS INTEREST INVENTORY WITH HIGH, AVERAGE, AND LOW PARTIAL INTEREST SCORES IN MECHANICS, BY SCHOOL CLASS GROUP

School Class Group	Number of Students						Total
	High Score	Per- cent	Middle Score	Per- cent	Low Score	Per- cent	
1	2	18.2	4	36.4	5	45.5	11
2	42	40.7	27	26.2	34	33.1	103
3	180	30.4	156	26.1	259	43.5	595
4	33	20.2	46	28.4	83	51.4	162
5	62	23.8	69	26.4	130	49.8	261
6	27	47.6	15	26.2	15	26.2	57
7	4	23.6	6	36.2	7	41.2	17
8	28	35.0	30	37.5	22	27.5	80
Total	378	29.4	353	27.4	555	43.2	1286

TABLE 6

NUMBER OF STUDENTS COMPLETING THE APPLIED BIOLOGICAL AND AGRIBUSINESS INTEREST INVENTORY WITH HIGH, AVERAGE, AND LOW PARTIAL INTEREST SCORES IN BUSINESS BY SCHOOL CLASS GROUP

School Class Group	Number of Students						Total
	High Score	Per- cent	Middle Score	Per- cent	Low Score	Per- cent	
1	0	0	4	36.4	7	63.6	11
2	29	28.2	37	35.9	37	35.9	103
3	113	19.0	180	30.2	302	50.8	595
4	26	16.1	45	27.9	91	56.0	162
5	42	16.1	71	27.3	148	56.6	261
6	21	36.9	20	35.0	16	28.1	57
7	3	17.6	7	41.2	7	41.2	17
8	23	28.8	21	26.2	36	45.0	80
TOTAL	257	20.0	385	30.0	644	50.0	1286

#### Discussion

The results of the study indicate a high degree of learned interest by seventh grade boys and girls in Nebraska schools in Applied Biological and Agribusiness subjects. These learned interests are based on previous individual experiences in school and away from school.

This research strongly supports the recommendation that students who have middle or high interests in one or more of the part scores as shown in the descriptive tables, should have the opportunity to explore vocational education courses in high school. These vocational education courses should include supervised occupational experience programs so the student may participate in actual "world of work" experiences prior to high school graduation.

The school could also structure exploratory occupational experiences at the junior high school level to expose young people to

the "world of work." Through a series of individual supervised observational experiences the student could observe and talk to workers in specific jobs. Local job sites could be utilized, with the information obtained based on a pre-planned list of questions. Resource persons, group trips, and media could also be utilized to acquaint students with occupations not available in the community.

Vocational education programs in high schools should be designed to prepare young people for their next pursuit after graduation. Students' interests, needs, and employment opportunities should form the basis upon which decisions are made concerning what vocational courses to offer in the high school curriculum.

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#### REFERENCES

<sup>1</sup>Published with the approval of the Director as Paper No. 3346 Journal Series, Nebraska Agricultural Experiment Station.

<sup>2</sup>Walker, Robert W. and Stevens, Glenn Z., The Applied Biological Science and Agribusiness Interest Inventory, The Interstate Printers and Publishers, Danville, Illinois, 1971.

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