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A STUDY TO DETERMINE THE NEED FOR A VETERINARY AIDE TRAINING PROGRAM IN KANSAS.

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To determine the need for a v"terinary aide training program, a study was conducted to: (1) discover the need for trained veterinary aides, (2) ascertain the type and extent of training needed, and (3) provide a sound basis for developing a post-secondary training program. Responses to mailed survey instruments were received from 159 of 500 veterinarians listed by the Kansas Veterinary Medical Association. Findings were: (1) 42 percent expressed an interest in employing veterinary aides from a proved training program, (2) Extrapolation from the above data revealed a need for 304 veterinary aides in 278 practices, (3) 43 percent would use the veterinary aide in a clinic situation and 48 percent in a combination field and clinic, (4) 63 percent would use aides in large animal and 25 in small animal practices, and (5) The estimated average starting wage would be $78.56 per week. Some recommendations were: (1) that plans be initiated to establish a pilot veterinary aide training program, (2) that the agricultural education division work with a special advisory committee in curriculum development and on-the-job training programs, (3) that considerable on-the-job experience be provided with cooperating veterinarians, and (4) that the program be a certificate program based upon satisfactory completion of training requirements. (DM)

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George A. Robinson
Donald E. Elson
Joe DeMichele

A Cooperative Study
by
Kansas Research Coordinating Unit
for Vocational Education, the Kansas
Veterinary Medical Association, and the
Kansas State Board for Vocational Education

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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George A. Robinson
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INTRODUCTION

Whether to maintain, extend, and improve existing programs of vocational education, or to develop new programs can not be based on mere assumption of need. Factual data backed by research must support decision making.

Since the State Supervisor for Agricultural Education, Kansas State Board for Vocational Education desired information to substantiate his program planning, the Kansas RCU was requested to assist with the research. The purpose of this study, then, was to determine whether a post-high school training program for veterinary aides was needed in Kansas.

OBJECTIVES

The objectives for this study were:

1. To obtain an assessment of the need for trained veterinary aides in the practice of veterinary medicine by polling veterinarians in Kansas;
2. To determine the type and extent of training which veterinarians consider important for veterinary aides;
3. To provide a basis for making recommendations to the Kansas State Board for Vocational Education concerning the feasibility of establishing a post-secondary level training program for veterinary aides.

DEFINITIONS

As used in this study the following definitions apply:

1. Veterinary Aides[1] - (also called veterinary-hospital attendant, or veterinary technician) D.O.T. job title No. 356-874 - Assists a licensed veterinarian in caring for animals under treatment in an animal hospital for disease, injury, or for production of serums: Leads, wheels, or carries animal from quarters to treatment room. Lifts animal unto treatment table and applies restraints or holds it during treatment. Sterilizes surgical instruments and other equipment, such as rubber gloves, syringes, and test tubes, using germicides and autoclave. Administers anesthetic, medications, and prescribed nursing care, under the direct supervision of a licensed veterinarian. Measures, mixes, grinds, and chops specified ingredients to prepare food, and feeds animals. Bathes and brushes animals and clips their hair and nails. Sweeps, dusts, mops, and hoses hospital rooms and animal quarters. May receive clients, answer telephone, make appointments, and accept payment on accounts.

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1. Manpower Administration, U.S. Department of Labor, Dictionary of Occupational Titles: Definitions of Titles, 3rd ed., vol. 1 (Washington: Government Printing Office, 1965), p. 775.

2. Post-Secondary - Relates to the educational program beyond high school. For this study it concerns the certificate program of instruction in the area vocational technical schools.

METHOD

This descriptive survey study included the population of 500 veterinarians who were listed by the Kansas Veterinary Medical Association (K.V.M.A.) as practicing in Kansas.

Information was secured via mailed survey instruments. A telephone survey of ten per cent of the non-respondents was conducted to compare their response with those who responded by mail.

Data was summarized in narrative form, using frequencies and percentages for illustration.

PROCEDURE

1. Mail via the K.V.M.A. executive secretary's office a preliminary survey form to determine the interest of veterinarians in the program and suggestions for skills which should be taught

2. Compile results of the preliminary survey

3. Meet with a committee from K.V.M.A., and staff members from the Agricultural Education Division, Kansas State Board for Vocational Education, to discuss results of the initial survey and to determine the nature of the next survey

4. Redesign & test final survey instrument

5. Mimeograph amended survey instruments

6. Mail survey material to the veterinarians listed by K.V.M.A.

7. Identify returns and group according to positive and negative responses

8. Tabulate and analyze data

9. Meet with K.V.M.A. advisory committee, staff members from the Agricultural Education Division, Kansas State Board for Vocational Education to discuss the preliminary findings

10. Prepare preliminary report to submit to the K.V.M.A. Board of Directors for their review and recommendations

11. Prepare and disseminate final report

REVIEW OF SELECTED LITERATURE

The term veterinary aide (vet. aide), as used in this study and taken from the Dictionary of Occupational Titles, assumes diverse meanings when one reviews materials from other states. There is generally common agreement on one point - training programs do not award baccalaureate degrees.

At the University of Connecticut, interested students enroll in the two-year Animal Science curriculum. By substituting certain special problems, some prepare to be assistants to veterinarians.[2] In supporting material, outlining the opportunities in Veterinary Technology - a B.S. degree program, many employment opportunities are listed which have varying degrees of similarity to the two-year program.[3]

Purdue University recently completed a needs study for assistants in veterinary medical practice. From this survey of Indiana veterinarians, it was concluded that:[4]

1. there was need for a two-year college Associate Degree level training program (offered in an accredited university or college) for the job title identified as animal technician.

2. there was need for a 6 to 9 month vocational-technical level training program (suggested for Indiana Vocational Technical College) for the job titles identified as small animal hospital attendant, and livestock attendant.

3. the largest number of job vacancies and second largest number of jobs was for animal technicians.

4. the largest number of jobs and second largest number of job vacancies was for small animal hospital attendants.

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2. Information in a letter to the author from W. A. Cowan, Head, Department of Animal Industries, July 8, 1968.

3. Ibid.

4. J. P. Lisack, and Erskine V. Morse, Indiana's Need for Assistants in Veterinary Medical Practice (Lafayette: School of Technology, Purdue University, May 1968), Manpower Report 68-2, pp. 13-16.

5. salaries reported for animal technicians were low when compared with technicians from other two-year associate degree programs.

6. there was strong support for State licensure, registration, and control of animal technicians. Examination by a State Board should be used to verify qualifications.

7. a system should be devised for identifying and recognizing attendants who had graduated from an accredited vocational training program and had been recommended by a veterinarian.

8. advisory committees should be used.

9. educational and training program curricula should be based on national standards, guides, and objectives provided by the AVMA Council on Education with accreditation by AVMA (American Veterinary Medical Association) after on-site evaluation.

A two-year technical program entitled, Veterinary Medical Technology, is available to young men and women at the Central Carolina Technical Institute, Sanford, North Carolina.[5]

The program was initiated in cooperation with the North Carolina Veterinary Medical Association. An advisory committee was selected from the association membership to assist in the program. The State believes that no more than one training program should be operated in any one state.

Graduates from the program are referred to as veterinary medical technologists. Although the curriculum is designed to provide technicians for veterinarians in small and large animal practice, students are prepared for job opportunities in diagnostic laboratories, research, and other areas dealing with animal care.

Duties of technicians include reception and record keeping, restraint of animals for examination and treatment, assisting with surgical procedures, performance of laboratory tests, medication, feeding, maintaining proper sanitation.

Since 1961, Animal Science Technology - a two-year Associate in Applied Science degree program - has been available to prospective technicians at the State University Agricultural and Technical College, Delhi, New York.[6]

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5. Information in a letter to the author from Avron B. Upchurch, Director of Vocational Technical Programs, July 11, 1968.

6. Information in a letter to the author from Walter E. Collins, D.V.M., Associate Professor, Animal Science, and Head, Department of Animal Science, July 9, 1968.

Graduates are sought by veterinarians, medical centers, colleges, pharmaceutical houses, research institutions, laboratory animal breeders, New York State Departments, and the Federal Government. Remuneration averages more than $5,000.

Offices, laboratories, and animal quarters are provided in one complete unit. Laboratories contain modern instruments for training technicians in laboratory animal care, physiology, pathology, microbiology, anesthesia, X-ray and germ-free techniques. Sizeable small animal colonies are maintained in air-conditioned quarters, while cats and dogs are available throughout the year.

Applicants to the College must be high school graduates or possess a New York State General Equivalency Diploma and must take either the Regents Scholarship Examination or the State University Admissions Examination. Two units of mathematics and two units of science, one of which must be chemistry is required of all applicants to the Animal Science Technology Program.

The literature, which has been cited, represents a cross-section of some of the veterinary aide training programs. Information from the four states - Connecticut, Indiana, New York, and North Carolina - shows that three in particular have two-year curriculum requirements. One is suggesting a two-year program and a less intensified training program covering a period of six to nine months. Considerable similarity exists in the job requirements given by the different states for persons from the active two-year programs. Many of the graduates from the B.S. program were employed in positions where the duties were quite similar to those of technicians from two-year programs.

FINDINGS

Of the 500 survey forms, which were mailed to veterinarians, 159 (31.80 per cent) were returned. Since no follow-up letters were mailed, a 10 per cent randomly selected sample was contacted by telephone to gain some insight regarding the views of the non-respondents. Thirty-four calls were completed.

Because the telephone survey was confined to the first two items on the survey instrument, that part of the findings, namely, type of practice, and interest in employing persons who might be trained in an approved training program, follows the analysis of data from the mailed survey.

Type of Practice

It was considered important to know in what type of practice respondents

were engaged. In other words, what portion of the respondents were engaged in large animal, small animal, mixed, research, or other practice? Table I contains the summary to this inquiry.

Table I. Type of Practice Reported by 159 Responding Veterinarians*

Type of Practice	No. Responding	Per Cent Responding
Large Animal	12	7.6
Small Animal	18	11.3
Mixed Practice	97	61.0
Research Facility	2	1.2
Other	17	10.7
No Response	13	8.2

*Includes 11 veterinarians from Missouri, Nebraska, and Oklahoma who practice in Kansas.

For the most part 97 (61.0 per cent) of the respondents listed their practice as mixed, i.e., consisting of both large and small animals. With the exception of research facilities, the number of remaining practices ranged from 12 to 18 for large animal, small animal, and other types of practice.

Interest in Employing Persons from an Approved Training Program

To the question, "Would you consider employing a person who had been trained in an approved training program?" 67 of the 159 responding veterinarians replied in the affirmative; 92 negative. In Table II the responses have been listed according to type of practice.

Table II. Comparison of Responses by Type of Practice, Regarding Employment of Vet. Aides from an Approved Training Program

Type of Practice	Respondents Answer				Total Response	
	Yes	%	No	%	No.	%
Large	3	1.89	9	5.66	12	7.6
Small	12	7.55	6	3.77	18	11.3
Mixed: (% large)	45	28.30	52	32.70	97	61.0
90-100	7		11			
80-89	11		10			
70-79	9		12			
60-69	5		4			
50-59	7		5			
40-49	5		2			
30-39	0		1			
20-29	0		0			
10-19	0		0			
1-9	0		1			
Mixed No % Desig.	1		6			
Research Facility	2	1.25	0	0.0	2	1.2
Other:	5	3.14	12	7.56	17	10.7
Educ. Research	1					
Vet. Extension	1		1			
Univ. Clinic or Staff	1		2			
Diag. Lab.	1		1			
Ind. Mfg. Pharm.	1					
Gov't Svc.			2			
Meat Inspector			1			
Biol. Lab.			1			
Regulatory			3			
Feed Lot			1			
No Response	0	0.0	13	8.18	13	8.2
Total	67	42.13	92	57.87	159	100.00

From the total of 159 respondents, there were 67 veterinarians who indicated an interest in employing a veterinary aide; 92 did not. It may be determined from Table II that 43 of those veterinarians who would employ a vet. aide from an approved training program were predominately large animal practitioners. This was computed by adding to the three in large animal practice those 39 who listed their practice as 50 per cent or more with large animals. Simultaneously, 51 practitioners replied negatively. Interest among other groups was rather scattered.

When those veterinarians in mixed practice who have 50 per cent or more of their practice with large animals are combined with large animal practitioners, and inversely those with 50 per cent or more small animal with the small animal practitioners, the respondents can be separated into two distinct groups. The following interpretation of interest in employing properly

trained veterinary aides for those two groups can then be made from Table II.

Type of Practice	Yes	%	No	%
Large Animal	43	27.04	54	33.96
Small Animal	17	10.69	13	8.18
Total	60	37.73	67	42.14

In addition to registering their interest, either for or against employing persons trained in an approved training program, most veterinarians who were interested estimated the number of vet. aides they would consider employing. Responses in Table III were listed by number of practices, since in some instances more than one veterinarian was officed at the same address.

Table III. Number of Vet. Aides that Veterinarians Would Consider Employing, According to Type of Practice

Type of Practice	No. Practices	No. Vet. Aides
Large Animal	3	1
Small Animal	12	15
Mixed: (% large)	45	41
90-100	7	4
80-89	9	10
70-79	9	10
60-69	5	6
50-59	7	7
40-49	5	3
30-39	0	0
20-29	0	0
10-19	0	0
1-9	0	0
Mixed No Designation	1	1
Research Facility	2	5
Other	5	3
Total	67	65

Although veterinarians said they were interested in employing persons from an approved training program, those from just 49 of the practices designated the number they would consider employing. For this group of 49 respondents, consideration would be given to employing 65 aides - an average of 1.33 veterinary aides per practice.

Provision for On-The-Job Training Station

The remaining summary of the mailed survey concerns only those veter-

inarians who would consider employing persons from an approved training program.

The first of those items registered reaction toward the provision of on-the-job training (work experience). In brief, the responses were:

Response	Number	Per Cent
Yes	48	71.64
No	16	23.88
No Response	3	4.48
Total	67	100.00

Responses for provision of on-the-job training (training station) were categorized by the type of practice in which a responding veterinarian was engaged. Table IV is a compilation of the affirmative and negative reactions toward cooperating with the training program of vet. aides.

Table IV. Frequency of Response by Type of Veterinary Practice for Providing Training Stations for Vet. Aide Trainees

Response	Large Prac.	Small Prac.	Mixed Practice (% Large) 1-39	40-49	50-59	60-69	70-79	80-89	90-99	No % Given	Res. Fac. Prac.	Other Prac.	Total
Yes	2	10	0	5	4	3	5	8	6	0	2	3	48
No	0	2	0	0	3	2	3	3	1	1	0	1	16
No Resp.	1	0	0	0	0	0	1	0	0	0	0	1	3
Total	3	12	0	5	7	5	9	11	7	1	2	5	67

By combining those practices which were 50 per cent or more large animal with the large animal practice and the remainder with small animal four distinct types of practice can be identified. Table V gives the frequency and per cent of response for those types.

Table V. Frequency and Per Cent of Response by Veterinarians for Providing Vet. Aides with On-The-Job Training Stations

Response	Large		Small		Res. Facility		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	28	41.79	15	22.40	2	2.99	3	4.47	48	71.84
No	12	17.91	2	2.99	0	0.00	2*	2.99	16	23.88
No Resp.	2	2.99	0	0.00	0	0.00	1	1.49	3	4.48
Total	42	62.69	17	25.38	2	2.99	6	8.95	67	100.00

*One mixed practice for which the per cent large and small animal practice was not given has been included.

From Tables IV and V, it will be noted that 48 (71.64 per cent) of the 67 veterinarians, who said they would consider employing persons trained in an approved training program, also said they would consider assisting with the training program by providing on-the-job training stations for trainees.

Small and large animal practitioners would offer the greater source of work experience opportunity.

Employment and Starting Wages

How extensively veterinarians would use aides in their practices is illustrated below. Full-time suggested at least a 40-hour week to give uniformity to responses, even though numerous practitioners replied that their work week was considerably longer. The basis for employment for vet. aides by 52 respondents was:

Full-time	Regular Part-time	Seasonal
45	4	2

The suggested average starting wage for full-time employees based on a 40-hour week was $78.56. The next chart gives more detail.

No. Vet. Aides	Wage Range	Average Wage
45	$50-$125	$78.56

The information on anticipated employment and starting wage as it pertained to the use of part-time employees is summarized below.

How Employed	No.	Rate Per Hour	Hrs. Per Week	No. Weeks
Part-time	1	1.25		
Part-time (regular)	1	1.40	20	52
Part-time (regular)	1	2.00	20	52
Part-time (regular)	1	1.25	25	52
Seasonal	1	2.00	40	18
Seasonal	1	1.50	30	30

Opportunities for Advancement in Wages and Responsibility

Based on the assumption that veterinary aides were performing satisfactorily in a given practice, respondents were asked to state whether there would be an opportunity for these persons to advance in wages and in position (responsibility). Table VI presents the responses in condensed form.

Table VI. Opportunities for Advancement in Wages and Responsibility, According to Practitioners Who Would Employ Persons from an Approved Training Program

Response	Advance in Wages		Advance in Responsibility	
	No.	%	No.	%
Yes	51	76.12	43	64.18
No	0	0.00	6	8.96
No Response	16	23.88	18	26.86
Total	67	100.00	67	100.00

The majority of veterinarians - 76.12 per cent and 64.18 per cent, respectively - would advance their vet. aides in wages and responsibility. Less than 10 per cent mentioned that they would not advance in responsibility. There were, on the other hand, 23.88 per cent who did not respond to the query on wages; 26.86 per cent responsibility.

Vet. Aide Work Environment

Another area of concern was where veterinary aides would work, if veterinarians desired to employ them. Respondents reactions to a clinical environment, field environment, or both clinical and field appear next.

Number Responding	Work Environment
29	Clinic
3	Field
32	Both
1	Other
2	No Response

Table VII shows this same data in more expanded form.

Table VII. Work Environment for Veterinary Aides by Type of Practice - Frequencies Only

Work Environment	Large Prac.	Small Prac.	Mixed Practice (% large)								Res. Fac. Prac.	Other Prac.	Total
			1-39	40-49	50-59	60-69	70-79	80-89	90-99	No % Given			
Clinic	0	11	0	2	3	2	5	3	0	0	0	3	29
Field	0	1	0	1	0	0	0	0	1	0	0	0	3
Both	2	0	0	2	4	3	4	8	6	1	1	1	32
Other	0	0	0	0	0	0	0	0	0	0	1	0	1
No Resp.	1	0	0	0	0	0	0	0	0	0	0	1	2
Total	3	12	0	5	7	5	9	11	7	1	2	5	67

From Table VII, it is evident that the greatest use for vet. aides would be in a clinic situation where 29, or 43.28 per cent, would be used, and in a combination of clinic and field where 32, or 47.77 pe. cent, would be used. Very few veterinarians said they would use a vet. aide in strictly a field situation.

This same information has been presented in Table VIII in similar form. The mixed practice group have been combined with either the large animal or small animal practitioners. (Those practices designated as less than 50 per cent large animal were combined with small animal; 50-99 per cent, large.)

Table VIII. Work Environment for Vet. Aides by Type of Practice - Frequencies and Per Cents

Work Environment	Large		Small		Research Facility		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Clinic	13	19.40	13	19.40	0	0.00	3	4.47	29	43.28
Field	1	1.49	2	2.99	0	0.00	0	0.00	3	4.47
Both	27	40.30	2	2.99	1	1.49	2*	2.99	32	47.77
Other	0	0.00	0	0.00	1	1.49	0	0.00	1	1.49
No Resp.	1	1.49	0	0.00	0	0.00	1	1.49	2	2.99
Total	42	62.69	17	25.38	2	2.99	6	8.95	67	100.00

*One mixed practice for which the per cent large and small animal practice was not given has been included.

The work environment summary in Table VIII could lead one to believe that the large animal practice has more opportunity for vet. aides than the small animal. The summary does not show the relative per cent of time during which the veterinary aide would be devoting his effort to small animals and, conversely, to large animals.

Preference for Vet. Aides by Sex

Concerning the preference of the 67 veterinarians for vet. aides by sex, their responses are shown below:

Number Responding	Sex Preference
21	Male
6	Female
38	Either male or female
2	No Response

To determine more fully the preference of male versus female aides among the various practices, Tables IX and X were developed. The first of the two tables gives more detail concerning type of practice. Table X, besides giving frequency of preference, includes percentage.

Table IX. Frequency Preference of Veterinarians by Type of Practice for Sex of Vet. Aide

Preference	Large Prac.	Small Prac.	Mixed Practice (% Large) 1-39	40-49	50-59	60-69	70-79	80-89	90-99	Not Desig.	Res. Fac. Prac.	Other Prac.	Total
Male	2	0	0	0	2	2	3	6	4	0	0	2	21
Female	0	1	0	1	2	1	1	0	0	0	0	0	6
Either	0	11	0	4	3	2	5	5	3	1	2	2	38
No Resp.	1	0	0	0	0	0	0	0	0	0	0	1	2
Total	3	12	0	5	7	5	9	11	7	1	2	5	67

Table X. Frequency and Percentage Preference of Veterinarians by Type of Practice for Sex of Vet. Aide

Preference	Type of Practice: Large No.	Large %	Small No.	Small %	Res. Fac. No.	Res. Fac. %	Other No.	Other %	Total No.	Total %
Male	19	28.36	0	0.00	0	0.00	2	2.99	21	31.34
Female	4	5.97	2	2.99	0	0.00	0	0.00	6	8.95
Either	18	26.89	15	22.38	2	2.99	3	4.48	38	56.72
No. Resp.	1	1.49	0	0.00	0	0.00	1	1.49	2	2.99
Total	42	62.69	17	25.37	2	2.99	6	8.95	67	100.00

The data in Tables IX and X may tend to refute an earlier assumption by some veterinarians that the greater use of vet. aides would be with small animal practitioners. In Table IX, three of the large animal practitioners desired the services of aides, whereas they show 45 when those mixed practices with over 50 per cent large animal are included. Unanswered is the question, for the 45 mixed practices, is the large animal or small animal part of the practice the reason for considering the employment of veterinary aides?

By sex one might conjecture that veterinarians would prefer male aides for the large animal portion of their practice and female aides for small animal.

Extent of Training Needed by Vet. Aides

For the most part, items which appear in Table XI were secured from responses to the preliminary survey, "Is a Veterinary Aide Training Program Feasible?" In this survey respondents were asked to review each item and designate whether extensive, moderate, or limited training was needed by veterinary aides. The distribution of the responses and the mean responses follow.

Table XI. Extent to Which Veterinarians Felt Persons Should be Trained Who Were Aspiring to Become Veterinary Aides

Items	Extent of Trng. Needed			Mean Response
	Ext.	Mod.	Ltd.	
a. Animal care, laboratory	2	8	15	.62
b. Animal care, general	25	26	1	2.16
c. Animal handling	37	16	1	2.44
d. Animal restraint	42	12	1	2.56
e. Animal feeding	17	28	7	1.93
f. Food preparation - measure, mix, grind, chop specified ingredients	5	22	16	1.27
g. Bathing and brushing animals	16	22	12	1.76
h. Clipping hair and nails of animals	18	21	11	2.66
i. Janitorial - sweep, dust, mop, hose, disinfect animal rooms and quarters	13	21	15	1.63
j. Administering anesthetic under direction of a veterinarian	21	21	10	1.94
k. Administer medication under direction of a veterinarian	30	22	2	2.30
l. Administer prescribed nursing care under direction of a veterinarian	35	17	2	2.38
m. Animal hygeine	19	25	3	1.86
n. Aseptic procedures	38	13	1	2.39
o. Sanitation and general hospital management	35	16	1	2.34
p. Sterilization procedures - surgical instruments and equipment	42	13	0	2.57
q. Surgical instrument care	33	19	1	2.34
r. Surgical preparation	37	14	1	2.37
s. Surgical room procedure and assistance	35	13	3	2.27
t. Service techniques - castrate, dehorn, vaccinate, etc.	16	8	17	1.37
u. Laboratory procedure - fecal flotations, blood counts, urinalysis, etc.	42	9	2	2.47
v. Basic anatomy	6	28	15	1.51
w. Applied bacteriology	9	21	17	1.46
x. Basic microbiology	5	21	15	1.22
y. Basic parasitology	13	15	13	1.73
z. Applied physiology	6	17	20	1.22
aa. Pathology	4	11	25	1.00
bb. Pharmacology	9	19	17	1.39
cc. Animal breeds and characteristics	14	20	11	1.58
dd. Livestock regulations	5	11	19	.95

Items	Extent of Trng. Needed			Mean Response
	Ext.	Mod.	Ltd.	
ee. State Practice Act	15	19	9	1.56
ff. Applied veterinary law	11	18	13	1.39
gg. Professionalism	25	16	3	1.86
hh. Veterinary terminology	24	22	5	2.05
ii. Personal grooming	33	14	3	2.20
jj. Human relations	33	9	2	2.01
kk. Public relations	38	11	3	2.35
ll. Receiving clients	38	10	3	2.32
mm. Teletraining	24	15	4	1.79
nn. Making appointments	27	15	7	2.00
oo. Accepting payments on accounts	26	13	9	1.91
pp. Billing	19	13	9	1.56
qq. Accounting	19	10	13	1.52
rr. Correspondence	13	14	15	1.39
ss. Records and filing	21	17	7	1.76
tt. Dispensing drugs	18	20	10	1.76

The Mean Response was calculated by the following "formula":

$$\text{Mean Resp.} = \frac{(3(\text{extensive no.}) + (2(\text{moderate no.}) + (1(\text{limited no.}) + (0(\text{no resp.}))}{\text{Total number responding, e.g., 59}}$$

The numbers 2, 8, and 15 respectively, under the choices Extensive, Moderate, and Limited, are the number of responses for item a - Animal care, laboratory. Thirty-four persons did not respond to this item. The mean response of 0.62 was obtained by using the above formula, e.g.:

$$\text{Mean Response} = (3x2) + (2x8) + (1x15) + (0x34) = 37/59 = 0.62$$

By rank, veterinarians considered the most training should be given for item h - Clipping hair and nails of animals - with a mean response of 2.66. Next important was item p - Sterilization procedures, surgical instruments and equipment. This was followed by item d - Animal restraint - etc.

An average response for each item, a through tt, would have been 1.50. The average mean response for all items was 1.85. This latter score was obtained by summing the mean responses of all items (85.12), and dividing by the number of items (46).

Telephone Survey of Non-Respondents

To determine how the 341 non-respondents would have reacted to the mailed survey, a 10 per cent randomly selected sample was contacted by telephone. From this group of veterinarians, information regarding the first

two items in the survey was solicited, namely, the types of practice in which they were engaged, their interest in employing vet. aides from an approved training program, and the number they would consider employing.

The information, concerning type of practice for the 34 veterinarians in the telephone survey, is presented in Table XII. For comparison with the mailed response, refer to Table I.

Table XII. Type of Practice Reported by 34 Veterinarians Contacted in Telephone Survey

Type of Practice	No. Responding	Per Cent Responding
Large Animal	5	14.7
Small Animal	5	14.7
Mixed	24	70.6
Other	0	0.0
Total	34	100.0

Responses to the second question from the telephone poll have been summarized in Table XIII. For reference to similar information from the mailed survey, turn to Table II.

Table XIII. Interest of Veterinarians by Type of Practice, in Employment of Vet. Aides from Approved Training Program

Type of Practice	Interest in Employment of Vet. Aides					
	Yes	%	No	%	Total	%
Large Animal	2	5.89	3	8.82	5	14.7
Small Animal	5	14.70	0	0.00	5	14.7
Mixed (% Large Animal)	14	41.17	10	29.41	24	70.6
90-100	2		0			
80-89	5		5			
70-79	2		2			
60-69	1		2			
50-59	2		1			
40-49	0		0			
30-39	2		0			
20-29	0		0			
10-19	0		0			
1-9	0		0			
Total	21	61.76	13	38.23	34	100.00

Twenty-one (61.76 per cent) of the 34 polled by telephone expressed an interest for aides from an approved training program. This compares with 67 (43.13 per cent) of those answering by mail.

For those practitioners, having an interest in vet. aides, the final inquiry concerned the number they might employ in their work. By type of practice, these are summarized in the following table.

Table XIV. Number of Aides that Veterinarians from the Telephone Sample Reported They Would Consider Employing

Type of Practice	No. Responding	No. of Vet. Aides
Large Animal	2	2
Small Animal	5	5
Mixed (% Large)	14	15
90-100	2	2
80-89	5	6
70-79	2	2
60-69	1	1
5[illegible]	2	2
[illegible]	0	0
30-39	2	2
20-29	0	0
10-19	0	0
1-9	0	0
Total	21	22

An interest in 22 aides by 21 prospective employers represents 1.05 veterinary aides per practice. This compares with 1.33 aides for the 49 veterinarians in Table III.

From the foregoing data, the following extrapolation can be made. Where 21 of 34 veterinarians (61.76 per cent of those polled by telephone) said they would consider employing aides from approved training programs, then 61.76 per cent of the 341 veterinarians who did not respond by mail would represent 211 potentially interested employers. At 1.05 aides per practice, a need would exist for 221 veterinary aides. When combined with the 65 aides from Table III, the need would increase to 286 trained persons. If one aide were allowed for each of the 18 veterinarians in Table III, who responded favorably to the program but did not specify a number, the total need would increase to 304 trained vet. aides by 278 Kansas practitioners. Based on an average annual replacement rate of 10 per cent, this would accommodate 30 trained veterinary aides per year.

Stated in equation form the above data may be shown as:

Total Need	= Extrapolated need from telephone survey	+ Mailed survey need	+ Need not specified in mailed survey but favor hiring aides (1 assigned per practice)
278 practices or 304 aides	211 practices or 221 aides	49 practices or 65 aides	18 practices or 18 aides

SUMMARY

Data for this description study was secured via a mailed survey of the 500 veterinarians listed by the Kansas Veterinary Medical Association (K.V.M.A.) as practicing in Kansas. Responses were received from 159 members (31.80 per cent) of that group.

To determine how the 341 non-responding veterinarians would have reacted, a telephone survey was taken of a 10 per cent randomly selected sample. From the 34 veterinarians polled by telephone, inquiries were limited to the first two survey items. See Appendix A.

Sixty-one per cent (97) of those who responded by mail and 70.6 per cent (24) of those surveyed by telephone said they would classify their practice as mixed, i.e., both large and small animal. Remaining responses were divided among large animal, small animal, research facility and other types of practice. The telephone respondents included only the first three named.

From the mailed responses, 67 (42.13 per cent) expressed an interest in employing vet. aides from an approved training program. For the telephone survey, this figure was 21 (61.76 per cent). Conversely, 92 (57.87 per cent) of the respondents by mail and 13 (38.23 per cent) of those by telephone expressed no interest.

Of the 67 interested veterinarians, only 49 specified an actual number of veterinary aides. That group of 49 would consider employing 65 vet. aides, while the 21 veterinarians from the telephone survey expressed an interest in 22 aides. For the 49, this was an average of 1.33 vet. aides per practice. For the 21, the average was 1.05. By assuming that each of the 18 interested veterinarians, who did not specify a number, would consider a minimum of one aide per practice, one can extrapolate from the above data that a need exists for 304 veterinary aides in 278 practices in Kansas. Using an estimated annual replacement rate of 10 per cent, this would accommodate 30 trained veterinary aides per year.

Since remaining summary items concerned those respondents from the mailed returns, who would consider employing veterinary aides from an approved training program, subsequent statements are based on a total of 67 responses.

Forty-eight (71.64 per cent) of the 67 would consider assisting with the vet. aide training program by providing on-the-job training stations, where work experience could be obtained under the direct supervision of the practicing veterinarian. Respondents represented a variety of opportunities, so trainees could select any type of practice for work experience assignments

The majority (45 of 52), who answered the employment item, wanted an aide for full-time work. Based on a 40-hour week, the average estimated starting wage would be $78.56 and range from $50 to $125.

Fifty-one (76.12 per cent) of the 67 veterinarians said there would be opportunity for advancement in wages. Simultaneously, 43 (64.18 per cent) said there would be opportunity for advancement in responsibility. Six veterinarians (8.96 per cent) indicated they would not advance aides in responsibility, whereas remaining veterinarians neglected to answer the two items.

Concerning work environment, 29 veterinarians (43.28 per cent) would use the vet. aide in a clinic situation; 32 (47.77 per cent) in a combination field and clinic.

Pertaining to type of practice, one can construe from the data that 42 (62.69 per cent) of the 67 veterinarians would use aides in large animal practices and 17 (25.38 per cent) in small animal. Large animal, in this instance, includes all those practices having from 50 to 100 per cent large animal practice.

By sex, 38 (56.72 per cent) answered that either male or female aides would be acceptable to their practices. Twenty-one (31.34 per cent) preferred male aides. Six (8.95 per cent) would rather have women aides in their practices.

Where the mean expected response for each of the 46 items suggested for the training program of aides was 1.50, the actual mean response for all items was 1.85. Mean response scores ranged from 0.62 to 2.66. Eleven of the 46 items had a mean response below 1.50; 22 below the actual mean of 1.85.

CONCLUSIONS

Responses obtained by mail and by telephone suggest a need for a veterinary aide training program.

Information obtained by personal contact from the telephone survey and from the field activity of the KVMA advisory study committee suggests that a higher percentage of veterinarians would have responded more favorably to the survey had it been conducted on an interview basis. Apparently, information relayed by mail failed to communicate adequately the purpose for the study.

RECOMMENDATIONS

Based on the findings of the study and meetings with the K.V.M.A. Advisory Study Committee, and the Agricultural Education Division of the Kansas State Board for Vocational Education, it is recommended:

1. That plans be initiated to establish a pilot veterinary aide training program at the post-secondary level.

2. That the Agricultural Education Division work with a special advisory committee to assist the development of curriculum and on-the-job training programs for the vet. aide program based on the findings of this study.

3. That plans provide for assessment of students upon entry into training and frequent reassessment during training, and a flexible course of study be developed to meet the needs of students as shown by the assessment and reassessment function.

4. That considerable on-the-job experience be provided with cooperating veterinarians.

5. That a higher ratio of employment experience be provided those students, who possess adequate achievement as evidenced by pre-enrollment assessment and training reassessment.

6. That the program be a certificate program with certification upon satisfactory completion of training requirements, rather than traditional school semesters.

7. That provision be made for a continuation of study, as needed, for those employed as vet. aides.

8. That due consideration be given the suggestions and recommendations from the Kansas Veterinary Medical Association Executive Board and membership in the appended letters (Appendix B and Appendix C).

APPENDICES

February 20, 1968

Sent to: Veterinarians in Kansas

Sent by: K.V.M.A. Study Committee on Veterinary Aid Training Program Needs (Dr. John F. Hudelson, Dr. Homer Caley, Dr. L. D. Jernigan), and George A. Robinson, Director, Kansas Vocational Education Research Coordinating Unit.

Subject: Study to Determine the Need for a Veterinary Aide Training Program in Kansas

The Kansas State Board for Vocational Education is interested in knowing if a veterinary aide training program would be feasible. In determining this need, the Kansas Vocational Education Research Coordinating Unit has been working with representatives of the Kansas Veterinary Medical Association in designing the study.

Last summer a preliminary survey form was mailed to a number of veterinarians. Responses returned to John D. Kirkland, Executive Secretary, KVMA, were useful in developing a more precise instrument which has been enclosed.

We are quite anxious to receive your candid reactions to the items used on the survey instrument. Other comments from respondents will be welcomed. As you will note from the enclosed and addressed envelope, your completed instrument is to be returned to Mr. Kirkland. A committee from KVMA will review the results with representatives from the Kansas State Board for Vocational Education and make recommendations.

Your cooperation in this study will be appreciated.

STUDY TO DETERMINE THE NEED FOR A VETERINARY AIDE TRAINING PROGRAM IN KANSAS

Name _____

Address _____

1. Type of practice:
   _____ a. Large animal
   _____ b. Small animal
   _____ c. Mixed
   _____ % large animal
   _____ % small animal
   _____ d. Research facility
   _____ e. Other (specify) _____

2. Would you consider employing a person who had been trained in an approved training program? Yes _____; No _____. If Yes, how many? _____.

   NOTE: If answer to item No. 2 is No, disregard remaining items.

3. Would you consider assisting with an approved training program by providing an on-the-job training station? Yes_____; No_____.

4. How would this person be employed in your practice, and what would be the anticipated starting wage?
   _____ a. Full-time (based on a 40 hour week) at a wage of $_____ per week.
   _____ b. Part-time:
   _____ 1.) _____ hours per day at $_____ per hour.
   _____ 2.) _____ hours per week at $_____ per hour.
   _____ 3.) Seasonal, _____ weeks (full-time) at $_____ week.
   _____ 4.) Seasonal, _____ hours per week for _____ weeks at $_____ hour.
   _____ 5.) Other (specify) _____.

5. Assuming satisfactory performance by a veterinary aide(s) in your practice, would there be opportunity for advancement in:
   a. Wages? Yes_____; No_____. b. Position (responsibility)? Yes_____; No_____.

6. What would be the work environment for this person in your practice?
   _____ a. Clinic _____ b. Field _____ c. Both
   _____ d. Other (specify) _____.

7. Persons employed in this position should be:
   _____ a. Male _____ b. Female _____ c. Either male or female

8. From the list provided, place a check mark in the one column which designates the extent of training needed by a veterinary aide in your practice. Omit those items which you consider unimportant. Add others which you consider important in the spaces provided.

Items	Extent of Training Needed		
	Extensive	Moderate	Limited
a. Animal care, laboratory			
b. Animal care, general			
c. Animal handling			
d. Animal restraint			
e. Animal feeding			
f. Food preparation - measure, mix, grind, chop specified ingredients			
g. Bathing and brushing animals			
h. Clipping hair and nails of animals			
i. Janitorial - sweep, dust, mop, hose, disinfect animal rooms and quarters			
j. Administering anesthetic under direction of a veterinarian			
k. Administer medication under direction of a veterinarian			
l. Administer prescribed nursing care under direction of a veterinarian			
m. Animal hygeine			
n. Aseptic procedures			
o. Sanitation and general hospital management			
p. Sterilization procedures - surgical instruments and equipment			
q. Surgical instrument care			
r. Surgical preparation			
s. Surgical room procedure and assistance			
t. Service techniques - castrate, dehorn, vaccinate, etc.			
u. Laboratory procedure - fecal flotations, blood counts, urinalysis, etc.			
v. Basic anatomy			
w. Applied bacteriology			
x. Basic microbiology			
y. Basic parasitology			
z. Applied physiology			
aa. Pathology			
bb. Pharmacology			
cc. Animal breeds and characteristics			
dd. Livestock regulations			

	Items	Extent of Training Needed		
		Extensive	Moderate	Limited
ee.	State Practice Act			
ff.	Applied veterinary law			
gg.	Professionalism			
hh.	Veterinary terminology			
ii.	Personal grooming			
jj.	Human relations			
kk.	Public relations			
ll.	Receiving clients			
mm.	Teletraining			
nn.	Making appointments			
oo.	Accepting payments on accounts			
pp.	Billing			
qq.	Accounting			
rr.	Correspondence			
ss.	Records and filing			
tt.	Dispensing drugs			
uu.				
vv.				
ww.				
xx.				
yy.				
zz.				

Kansas Veterinary Medical Association
9 North Broadway
P. O. Box 391
Herington, Kansas 67449

June 11, 1968

George Robinson
Suite 22
Ramada Executive Building
Sixth & Jefferson
Topeka, Kansas 66607

Dear Mr. Robinson:

The Kansas Veterinary Medical Association Executive Board, and membership were in meeting June 2-3, 1968, in Manhattan, Kansas. Considerable discussion was held regarding a Veterinary Aide training program in Kansas.

John F. Hudelson, D.V.M., President of the Kansas Veterinary Medical Association, has requested that I write informing you of the points of agreement that were reached as a result of the aforementioned discussion.

1. Our Board recommends that the Association work closely with you in this matter and that the KVMA President appoint 5 KVMA members to serve on the advisory committee of Mr. C. C. Eustace.
2. Full assistance should be given in the planning of the curriculum, location, and all other matters pertaining to one of these schools.
3. It is felt that a certificate listing the limitations of the person receiving this education should be issued upon the completion of the course.
4. It is further felt that some examination and requirements should be determined by the Board of Veterinary Examiners.
5. It was unanimously agreed that this developing process should not be hurried, but that sufficient time should be spent on all possibilities such as the curriculum, location, length of course, etc., be examined fully to remove all error possible before inception.

Our President, John F. Hudelson, D.V.M. has not as yet announced his selection of the 5 KVMA members to serve on the advisory committee of Mr. Eustace, however we will submit this information as quickly as it is made available.

Sincerely,

John D. Kirkland
Executive Secretary, K.V.M.A.

cc Mr. C. C. Eustace
John F. Hudelson, D.V.M.

APPENDIX C

Kansas Veterinary Medical Association
9 North Broadway
P. O. Box 291
Herington, Kansas 67449

June 27, 1968

C. C. Eustace
Vocational Agriculture Supervisor
Eleventh Floor
State Office Building
Topeka, Kansas

Dear Mr. Eustace:

Below are listed the names and addresses of five veterinarians who have agreed to serve on your advisory committee to make further plans for developing a course for veterinary technicians in one of your Vocational Technician Schools:

Dr. L. D. Jernigan, R. R. 3, Council Grove 66846
Dr. J. E. Mosier, Dykstra Vet. Hospital, KSU, Manhattan 66504

Dr. John S. Haley, 109 W. 29th St., Topeka 66611
Dr. Gary N. Pottorff, 536 S. West St., Wichita 67213
Dr. Wayne D. Bradley, 1010 W. 103rd St., K.C., Mo., 64114

I am sure these men are all interested in this program and will assist you in every way possible. Thank you for your cooperation.

Sincerely yours,

Dr. John F. Hudelson
President

cc John D. Kirkland

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