An Exploration of Usefulness of Instructional Learning Methods in Career Selection of Veterinary Graduates

Channappagouda, B[1] and Sharma, G. R. K[2]

ABSTRACT

The veterinary education in India is facing a paradigm shift which calls for greater emphasis on competency and skill based education. Veterinary Council of India (VCI) is working to address the issues by involving the various stakeholders. However still more in-depth appraisal of students' perceptions on various aspects of curriculum has not been performed empirically. In this background an attempt has been made to know the graduates overall perception about the different innovative instructional learning methods under VCI-2008 curriculum and their usefulness in career selection. For this purpose, 150 post graduate students were randomly selected from five postgraduate teaching campuses of five south Indian veterinary universities to obtain the information through pre-structured schedule. The study revealed that study circle and tracking courses were found not useful (48.0 per cent and 52.7 per cent respectively) while internship and entrepreneurial training activities were perceived as most useful (71.3 %) and useful (36.7 %) respectively. Further, more than half perceived that clinical (diagnostic) exposure and extension activities as most useful (50.7 % and 61.3 %). The results indicate that much needed emphasis on practical problem solving skills with multidisciplinary approach in the undergraduate curriculum for effective career decisions by graduates.

Key words: VCI, undergraduate curriculum, instructional learning methods (ILMS), career decisions

INTRODUCTION

Professional and technical education courses, such as agricultural and veterinary education, exist, in part, to assist graduates in acquiring the competencies needed to achieve employability. The goal of veterinary undergraduate curriculum is to prepare workable human resource equipped with all necessary knowledge, skills and capacities related to production, clinical care and outreach. Shrinking opportunities for veterinary graduates in public sector has forced vets to see their role as dispensing knowledge, not just drugs. Eventually the outgoing graduates were expected to work in wide range of areas with more productive outcome and accountability. Sasidhar (2005) in his SWOT analysis of veterinary and animal science education stated that merit based admission to B.V.Sc & A.H, uniform curriculum for undergraduate education and eminent faculty with strong network were the strengths whereas lack of adequate flexibility in curriculum development, less exposure of students to practical and research methodology at undergraduate level and shortage of faculty in teaching, research and outreach were the weaknesses.

Since the inception of Veterinary Council of India, two curriculum revisions (1994 & 2008) have been implemented and third revision is under process for implementation. Compared to first one (1994), VCI has introduced several new components of practical importance in curriculum for facilitating effective learning and decision making among the graduates. Efforts have been made to encourage students to participate in group discussions and seminars to enable them to develop personality, character expression and other qualities which are necessary for a veterinary graduate to function either in solo practice or as a team member when he/she begins his/her independent professional career and an appropriate time slot for this activity is also provided in the student study time table (VCI, 2008). With this uniform curriculum, on an average a student undergoes approximately 5000 hours of theory and practical learning during his/ her five years of

[1] Ph.D Scholar, Department of Veterinary and Animal Husbandry Extension Education, College of Veterinary Science, SVVU, Tirupati- 517 502
[2] Professor and University Head Department of Veterinary and Animal Husbandry Extension Education, College of Veterinary Science, SVVU,

veterinary graduation (Sasidhar and Gopal Reddy, 2012). Keeping this in mind an attempt has been made to know the graduates perceptions on the usefulness of these new components in their career selection.

METHODOLOGY

An exploratory research design and survey with Likert method of summated ratings were used (Delp *et al.,* 1977) in the present study. Five post graduate campuses from five Veterinary Universities in South India *viz.,* SVVU, Tirupathi (Andhra Pradesh), PVNRTVU, Hyderabad (Telangana), TANVASU, Chennai (Tamilnadu), KVAU, Thrissur (Kerala) and KVAFSU, Bidar (Karnataka). A list of post graduates completed graduation under VCI- 2008 curriculum was prepared campus wise and 30 respondents from each campus were selected randomly to arrive a sample size of 150.

The respondents were asked to express their perception about the usefulness in career selection on two aspects *viz.,* usefulness of present education system in career decisions and various Instructional Learning Methods (ILMs) and practical exposures available to the students in curriculum. Around 04 specific innovative learning components and 04 practical exposures available for students routinely in undergraduate education were selected after consulting experts. The data obtained from respondents with the help of a structured schedule (Questionnaire) were scrutinized, collated and the statistical tools (namely frequency, percentage, and Chi-square test) were used for analysis of the data using SPSS version 20.0 package.

RESULTS AND DISCUSSION

a. Usefulness of present veterinary education system in career decisions

The data in table-1 revealed that majority of graduates perceived the present VCI pattern of education and duration of course are useful (49.3 %, 50.0 %) followed by not useful (34.7 %, 30.0 %) and most useful (16.0 %, 20.0 %). While their perception regarding existing 2008 curriculum indicates that majority feel that it is not useful (48.7%) followed by useful (39.3 %) and most useful (12.0%) indicating the need for revamped curriculum for better career selection and carrying out their professional work. Further Chi-square analysis of data indicates the significance difference ($p<0.05$) in perception regarding present VCI pattern of education among the graduates of different states. Though the uniform system of education prescribed by VCI is followed by all veterinary colleges, its effective

implementation due to shortage of resources and faculty remains a question. This may be the reason attributable for the perceptional difference between states. These results are partly in line with Sasidhar and Gopal Reddy (2012) who also reported the uniform curriculum because of present VCI system of education as strength and gaps in curriculum revision as weakness of veterinary education in India.

b. Usefulness of ILMs in career decisions

Table- 2 indicated that most of the graduates opined study circle and tracking courses not useful (48.0 % and 52.7 % respectively) while internship is perceived as most useful (71.3 %) and entrepreneurial training activities as useful (36.7 %) followed by most useful (32.7 %). The results thereby suggest the upcoming graduates' increased interest towards skill based knowledge rather than information based knowledge. The chi-square analysis revealed the highly significant difference ($p<0.01$) in perception regarding the study circles, tracking courses and entrepreneurial activities among the graduates of different states. This may be because of bottlenecks in implementation of these in different colleges.

c. Usefulness of different types of practical exposures in career decisions

Among the four practical exposures it was felt that industry exposure and assignments / seminars as a part of undergraduate curriculum were useful (47.3 % and 46.0% respectively) followed by most useful (27.3 per cent and 28.7 % respectively).

Further more than half of respondent perceived clinical (diagnostic) exposure as well as rural exposure through extension activities as most useful (50.7 % and 61.3 % respectively) followed by useful (32.7 % and 28.7 % respectively). It may be because of more career scope in rural based livestock health care activities and their increased interest towards more and more practical exposure. This throws an opportunity to think of starting specialised elective courses on important aspects of practical importance.

A significant difference ($p<0.05$) among the graduates of different states was observed with regard to existing clinical/ diagnostic exposure and assignments/ seminars, which might be due to variation in number of cases, laboratory infrastructure, faculty interests etc. Almost similar observations about the need of selective courses were made by Sasidhar and Gopal Reddy (2012).

Table1: Usefulness of present education system under VCI in their career decisions

	AP		Telangana		Tamilnadu		Kerala		Karnataka		Total		X^2 Value
	N	%	N	%	N	%	N	%	N	%	N	%	
Present VCI Pattern of Education													
Not Useful	19	63.3	8	26.7	12	40.0	6	20.0	7	23.3	52	34.7	22.75*
Useful	8	26.7	13	43.3	15	50.0	18	60.0	20	66.7	74	49.3	
Most Useful	3	10.0	9	30.0	3	10.0	6	20.0	3	10.0	24	16.0	
Total	30	100.0	30	100.0	30	100.0	30	100	30	100.0	150	100.0	
Existing VCI Curriculum (2008)													
Not Useful	19	63.3	14	46.7	16	53.3	11	36.7	13	43.3	73	48.7	11.26NS
Useful	9	30.0	9	30.0	13	43.3	14	46.7	14	46.7	59	39.3	
Most Useful	2	6.7	7	23.3	1	3.3	5	16.7	3	10.0	18	12.0	
Total	30	100.0	30	100.0	30	100.0	30	100	30	100.0	150	100.0	
Duration of Course													
Not Useful	12	40.0	7	23.3	9	30.0	6	20.0	11	36.7	45	30.0	11.89NS
Useful	17	56.7	16	53.3	13	43.3	14	46.7	15	50.0	75	50.0	
Most Useful	1	3.3	7	23.3	8	26.7	10	33.3	4	13.3	30	20.0	
Total	30	100.0	30	100.0	30	100.0	30	100	30	100.0	150	100.0	

*Significant @5% level; NS- Non Significant; AP: Andhra Pradesh

Table 2 : Useful ness of new ILMs in career decisions

	AP		Telangana		Tamilnadu		Kerala		Karnataka		Total		X^2 Value
	N	%	N	%	N	%	N	%	N	%	N	%	
Study Circles													
Not Useful	13	43.3	14	46.7	24	80.0	9	30.0	12	40.0	72	48.0	24.77**
Useful	15	50.0	13	43.3	5	16.7	12	40.0	11	36.7	56	37.3	
Most Useful	2	6.7	3	10.0	1	3.3	9	30.0	7	23.3	22	14.7	
Total	30	100.0	30	100.0	30	100.0	30	100.0	30	100.0	150	100.0	
Tracking Courses													
Not Useful	16	53.3	16	53.3	24	80.0	8	26.7	15	50.0	79	52.7	22.82**
Useful	12	40.0	12	40.0	4	13.3	13	43.3	10	33.3	51	34.0	
Most Useful	2	6.7	2	6.7	2	6.7	9	30.0	5	16.7	20	13.3	
Total	30	100.0	30	100.0	30	100.0	30	100.0	30	100.0	150	100.0	
Internship Exposure													
Not Useful	1	3.3	0	0.0	1	3.3	2	6.7	0	0.0	4	2.7	7.30NS
Useful	8	26.7	8	26.7	8	26.7	4	13.3	11	36.7	39	26.0	
Most Useful	21	70.0	22	73.3	21	70.0	24	80.0	19	63.3	107	71.3	
Total	30	100.0	30	100.0	30	100.0	30	100.0	30	100.0	150	100.0	
Entrepreneurship TrainingActivities/ Earn While Learn													
Not Useful	10	33.3	12	40.0	7	23.3	7	23.3	10	33.3	46	30.6	24.08**
Useful	15	50.0	3	10.0	13	43.3	8	26.7	16	53.3	55	36.7	
Most Useful	5	16.7	15	50.0	10	33.3	15	50.0	4	13.3	49	32.7	
Total	30	100.0	30	100.0	30	100.0	30	100.0	30	100.0	150	100.0	

**Significant @1%level; NS- Non Significant; AP: Andhra Pradesh

Table 3 : Usefulness of different types of practical exposures in career decisions

	AP		Telangana		Tamilnadu		Kerala		Karnataka		Total		X^2 Value
	N	%	N	%	N	%	N	%	N	%	N	%	
Industry Exposure During UG (Field visit and interactions with industrialists)													
Not Useful	9	30.0	6	20.0	9	30.0	7	23.3	7	23.3	38	25.3	4.53NS
Useful	13	43.3	14	46.7	15	50.0	12	40.0	17	56.7	71	47.3	
Most Useful	8	26.7	10	33.3	6	20.0	11	36.7	6	20.0	41	27.3	
Total	30	100.0	30	100.0	30	100.0	30	100.0	30	100.0	150	100.0	
Existing Clinical (Diagnostic) Exposure													
Not Useful	5	16.7	5	16.7	8	26.7	6	20.0	1	3.3	25	16.7	16.20*
Useful	11	36.7	6	20.0	9	30.0	6	20.0	17	56.7	49	32.7	
Most Useful	14	46.7	19	63.3	13	43.3	18	60.0	12	40.0	76	50.7	
Total	30	100.0	30	100.0	30	100.0	30	100.0	30	100.0	150	100.0	

Assignments/ Seminars

	AP		Telangana		Tamilnadu		Kerala		Karnataka		Total		X^2 Value
Not Useful	6	20.0	4	13.3	10	33.3	4	13.3	14	46.7	38	25.3	19.01*
Useful	12	40.0	17	56.7	14	46.7	13	43.3	13	43.3	69	46.0	
Most Useful	12	40.0	9	30.0	6	20.0	13	43.3	3	10.0	43	28.7	
Total	30	100.0	30	100.0	30	100.0	30	100.0	30	100.0	150	100.0	

Rural Exposure Through Extension Activities

	AP		Telangana		Tamilnadu		Kerala		Karnataka		Total		X^2 Value
Not Useful	0	0.0	2	6.7	5	16.7	5	16.7	3	10.0	15	10.0	10.59NS
Useful	12	40.0	10	33.3	8	26.7	4	13.3	9	30.0	43	28.7	
Most Useful	18	60.0	18	60.0	17	56.7	21	70.0	18	60.0	92	61.3	
Total	30	100.0	30	100.0	30	100.0	30	100.0	30	100.0	150	100.0	

*Significant @5% level; NS- Non Significant; AP: Andhra Pradesh

CONCLUSION

The findings from the present study emphasize the need to change the curriculum orientation to make it more need based and helpful in career selection decisions. The positive perception regarding internship, clinical (diagnostic) exposure, rural exposure through extension activities, entrepreneurial training activities, industrial exposure and assignments/seminars indicate their increased interest towards skill based knowledge rather than mere information. While graduates' negative perception towards study circle and tracking courses may be due to lack of clarity in its implementation, as a result the purpose of these activities seems to be defeated. From the findings it could be inferred that though VCI is recommending the uniform standard course curriculum for all veterinary colleges in India, the Indian veterinary educational planners have been devoting time to the technical content of the curriculum rather than providing the adequate practical hands-on experiences needed for the entry level veterinarians. The country has passed through its industrial phases and is presently in a technological phase, and is evolving into a knowledge-based economy. Hence this transition needs to be addressed in the curriculum by thinking beyond didactic lectures and giving emphasis on practical problem solving skills with multidisciplinary approach.

REFERENCES

Bhorke, A.P., Ranade, A.S. and Waskar, V.S. (2004). Minimum Standards of Veterinary Education:Experience in Maharashtra. In: Balakrishnan, V. (Ed.), Proceedings of the National Symposium on VCI Regulations Governing Undergraduate Education in Veterinary and Animal Sciences - A Retrospection. Chennai, India: Madras Veterinary College, pp. 4-8.

Delp, P., Thesen, A., Motiwalla, J. and Seshadri, N. (1977). Delphi System Tools For Project Planning. Columbus: Ohio State University.

Jogi, S. (2004) VCI Regulations: A Boon or Bane of Veterinary Education. In: Balakrishnan, V. (Ed.), Proceedings of the National Symposium on VCI Regulations Governing Undergraduate Education in Veterinary and Animal Sciences- A Retrospection. Chennai, India: Madras Veterinary College, pp. 1- 4.

Sasidhar, P.V.K. (2005). SWOT analysis of veterinary and animal science education. *Pashudhan.* 31(12): 2.

Sasidhar, P.V.K. and Van Den Ban, A.W. (2006) Management Entrepreneurship and Private Service Orientation: A Framework for Undergraduate Veterinary Education. *Journal of Agricultural Education and Extension,* 12(3), : 201- 211.

Sasidhar, P. V. K and Gopal Reddy, P (2012): SWOT analysis of veterinary and animal science education in India: implications for policy and future directions, *The Journal of Agricultural Education and Extension,* 18:4, 387-407.

VCI. (2008). Minimum Standards of Veterinary Education Degree Course. New Delhi: Veterinary Council of India.