Usage of Teaching Aids, Teaching Methods, Learning Resources, Physical Facilities and Teaching Styles of the Teachers of Agricultural College, Bapatla

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ABSTRACT

Agricultural College, Bapatla was purposively selected out of the six Agricultural College in ANGRAU to know the usage of Teaching Aids, Teaching Methods, Learning Resources, Physical Facilities and Teaching Styles of the Teachers of Agricultural College, Bapatla. The study was conducted by adopting the Ex - Post - Facto Research Design. The respondents for the study include all teachers (56) on rolls as on the date of study in the selected campus. Effort is made to know the distribution of respondent teachers over their usage of Teaching Aids, Teaching Methods, Learning Resources, Physical Facilities and Teaching Styles of the of Agricultural College, Bapatla

Key words : Learning resources, Physical facilities, Teaching aids, Teaching methods.

Learning is a proactive process that cannot take place without the self activity of the Learner. . Learning is basically to bring some permanent change in one's own Behaviour i.e., Knowledge, Attitude, Skill and Understanding through the self activity of the Learner. Hence, the modern psychologists have opined that the learning is growth like. Virtually, learning starts from the day a child takes its birth. Learning is highly individualized, self-active and it is a continuous process. The true test of learning is change in behaviour. It can take place through experience and education. It is an activity involving both physical and mental adjustment. It is organizing experience, purposeful, intelligent, creative, active, and individualized and group oriented and the product is expected learning outcomes. The purpose of education is to promote all round development of the learners and bring about desirable changes in their behaviour and agriculture education is not an exception. The basic objective of teaching is to create the learning situation in which the learning takes place automatically. In fact, teaching and learning are the two sides of the same coin. It involves five Elements i. e., Learner, Teacher, Subject Matter, Teaching Materials and Physical facilities. Since, in the Present day Education, the Teacher, and Learners highly organized, every effort is made to collect the opinions of teachers on the remaining three

elements i.e., Subject Matter, Teaching Materials and Physical facilities.

MATERIAL AND METHODS

The present Study was conducted by adopting Ex - Post - Facto Research Design. by selecting Agricultural College; Bapatla purposively out of the six Agricultural Colleges in ANGRAU, Andhra Pradesh as it is the foremost and oldest College established with supposed to be well experienced faculty and required Infrastructural facilities. All the 56 Teachers (15 Professors, 20 Associate Professors and 21 Assistant Professors) included for the present Study. Frequency (f) and Percentages (%) were used for statistical analysis.

RESULTS AND DISCUSSION

Usage of Teaching Aids

Teaching aids compliment and supplement the teacher in delivering instruction effectively.

Table1 clearly exhibits that Always used Teaching Aids in Class Room by the respondent teachers include O.H.P transparencies (42.85%), charts (42.85%) followed by specimens (10.71%), flannel graphs (5.35%), and real objects (1.78%), respectively in percentage order of their importance.

Frequently used teaching aids by respondent teachers include charts (44.65%),

Table1. Distribution of respondent teachers based on use of teaching aids.

(N = 56)

S.No.	Teaching Aids	Response Category									
		Never		Rarely		Occasionally		Frequently		Always	
		F	%	F	%	F	%	F	%	F	%
1.	Charts	—	—	—	—	7	12.50	25	44.65	24	42.85
2.	Flannel graphs	2	3.57	42	75.00	8	14.28	1	1.78	3	5.35
3.	Slides a) Manual operated slides	3	5.35	46	82.14	3	5.35	4	7.14	—	—
	b) Power point slides	13	23.21	7	12.50	18	32.14	18	32.14	—	—
4.	O HP transparencies	5	8.92	5	8.92	3	5.35	19	33.92	24	42.85
5.	Video programmes	3	5.35	29	51.78	22	39.28	2	3.57	—	—
6.	Real objects	6	10.71	15	26.78	16	28.57	18	32.40	—	—
7.	Specimens	1	1.78	6	10.71	25	44.65	18	32.40	1	1.78
8.	Model and Mock-ups	7	12.50	23	41.07	26	46.42	—	—	6	10.71

F = Frequency,   % = Percentage

O.H.P transparencies (33.92%), power point slides, real objects and specimens (32.40% each), respectively in percentage order of their importance.

Occasionally used teaching aids includes models and mock – ups (46.42%), specimens (44.65%), video programmes (39.28%), power point slide (32.14%), real objects (28.57%) and flannel graphs (14.28%)., respectively in percentage order of their importance.

Rarely used teaching aids were manual operated slides (82.14%), flannel graphs (75.00%), video programmes (51.78%), model and mock – up (41.07%) and power point slides (12.50%), respectively in percentage order of their importance.

Slides with power point presentation (23.21%), model & mock – ups (12.50%), real objects (10.71%), O.H.P transparencies (8.92%) and video programmes (5.35%), respectively were the teaching aids in percentage order of their importance in the category of rarely used teaching aids by respondent teachers.

Rajani ghadekar and Asha (1993) recommended for the use of teaching aids at college level for the better understanding of the subject matter.

Usage of Teaching Methods

Table 2 clearly shows that always used teaching methods were lecture method (64.29%), demonstration method (53.57%) followed by discussion and workshops (33. 92% each), respectively in percentage order of their importance.

Frequently used teaching methods were case method (48.22%) followed by workshops (42.87%), brainstorming (41.07%), demonstration (37.50%), discussion (37.50%) and exercise (35.71%), respectively in percentage order of their importance.

Role play (44.65%), exercise (39.28%), field visit (32.14%), colloquy (30.35%) and brainstorming (25.00%), respectively were the occasionally used teaching methods by respondent teachers in percentage order of their importance.

Rarely used teaching methods in percentage order of their importance include case method (28.57%), colloquy (28.57%), discussion (12.50%), field visit (12.50%), brain storming,

Table 2. Distribution of respondent teachers based on use of teaching methods.   (N= 56)

S.No.	Teaching Methods	Response Category									
		Never		Rarely		Occasionally		Frequently		Always	
		F	%	F	%	F	%	F	%	F	%
1.	Lecture	2	3.58	1	1.78	1	1.78	16	28.57	36	64.29
2.	Discussion	2	3.58	7	12.50	7	12.5	21	37.50	19	33.92
3.	Demonstration	—-	—-	2	3.58	3	5.35	21	37.50	30	53.57
4.	Brain harvesting (Brain-storming)	—-	—-	6	10.72	14	25.00	23	41.07	13	23.21
5.	Role play	—-	—-	2	3.58	25	44.65	19	33.92	10	17.85
6.	Case method	—-	—-	16	28.57	11	19.64	27	48.22	2	3.57
7.	Workshops	—-	—-	6	10.71	7	12.5	24	42.87	19	33.92
8.	Exercise (simulated experience)	3	5.35	6	10.71	22	39.28	20	35.71	5	8.95
9.	Colloquy	—-	—-	16	28.57	17	30.35	9	16.09	14	25.00
10.	Field visit	—-	—-	7	12.50	18	32.14	18	32.14	13	23.22

F = Frequency,   % = Percentage

workshops exercise method (10.71% each), respectively

Exercise (5.35%), discussion (3.58%), respectively were found to be in never used category by respondent teachers in percentage order of their importance.

It is in line with the findings of Mishra (1990).

Usage of Learning Resources

Table 3 clearly indicates that books, bulletins, manuals were found to be the prominent learning resources and they found to be used regularly by half (50%) of the respondent teachers followed by consulting seniors / teachers / superiors (46.43%), magazines and technical journals (39.28%), technical experts (35.71%), television programmes and exhibitions (23.22% each), research stations and seminars / workshops (14.29% each), Internet and radio programmes (10.72% each), respectively in percentage rank order of their importance.

Vast majority (64.28%) of the respondent teacher using television programmes as a learning resource frequently followed by research stations (62.50%), radio programmes (60.70%), Inter-net (57.14%), exhibitions (53.57%), bulletins / books / manuals (50.00%), magazines and technical journals (42.86%), consult seniors / teachers / superiors (32.14%) and seminars / workshops (26.79%), respectively in percentage rank order of their importance.

Occasionally used learning resources include seminars / workshops (35.71%), Internet (25.71%) exhibitions and research stations (23.21% each), technical experts (21.43%), magazines / technical journals and consulting seniors / teachers / superiors (17.86% each), respectively in percentage rank order of their importance.

Rarely used learning resources include seminars / workshops (23.21%), radio programmes, Inter-net, consulting seniors / teachers / superiors (3.57% each), respectively in percentage rank order of their importance.

Never used learning resource was radio programmes (10.72%).

The results were more or less on par with the results of Reddy (2002) and Vijayabhinandana (2003).

Physical facilities

Table 4 clearly indicated that more than half (67.85%) of teachers expressed that 'spacious room to sit' was very much adequate.

Most of the respondent teachers indicated 'adequate' for almost all the physical facilities (computer and A.C facility, lighting facility, ventilation, ceiling fan, telephone facility, teachers' table and chair, lectern, audio visual equipments i.e., over head projector, slide projector, collar mike.

Table 3. Distribution of respondent teachers based on learning resources utilization.   (N = 56)

S.No.	Learning source(s)	Extent of utilization									
		Regularly		Frequently		Occasionally		Rarely		Never	
		F	%	F	%	F	%	F	%	F	%
1.	Books, Bulletins, Manuals	28	50.00	28	50.00	—	—	—	—	—	—
2.	Magazines, Technical Journals	22	39.28	24	42.86	10	17.86	—	—	—	—
3.	Technical Experts	20	35.71	24	42.86	12	21.43	—	—	—	—
4.	Television Programmes	13	23.22	36	64.28	7	12.50	—	—	—	—
5.	Radio Programmes	6	10.72	34	60.70	8	14.29	2	3.57	6	10.72
6.	Research Stations	8	14.29	35	62.50	13	23.21	—	—	—	—
7.	Exhibitions	13	23.22	30	53.57	13	23.21	—	—	—	—
8.	Internet	6	10.72	32	57.14	16	28.57	2	3.57	—	—
9.	Seminars / Workshops	8	14.29	15	26.79	20	35.71	13	23.21	—	—
10.	Consult Seniors, Teachers, Superiors	26	46.43	18	32.14	10	17.86	2	3.57	—	—

F: Frequency;   %: Percentage

The facilities that were found to be less than adequate include computer and A.C facility (26.78), telephone facility (37.50%), and collar mike (50.00%), respectively were in increasing percentage order of their importance.

Classroom with computer and A.C facility (14.28%), telephone facility (23.21%), collar mike (19.64%), respectively were the physical facilities in increasing percentage order of their importance.

The above said inadequate physical facilities need to be looked into by the university administrators for creating effective learning environment. This finding was in line with the Reddy (2002).

Opinion of teachers towards teaching styles

Responses of teachers towards teaching styles pertinent to the statements are given below in the table 5.

1. "The teaching goal and method is to take care of a variety of student learning styles" received undecided response from majority (33.92%) of the respondent teachers followed by agree (32.14%) and strongly agree (30.35%), respectively.

2. "With my supervision, students work on course activities" strongly agreed by majority (39.28%) of the respondent teachers followed by rest coming under agree (26.78%), disagree (19.64%) and undecided (14.28%) categories, respectively.

3. "Sharing my knowledge and ideas (views) with students is very key-factor to me" was strongly agreed (30.35%) by the most of the respondent teachers followed by remaining coming under disagree (19.64%), undecided (14.28%) and agree (3.57%) categories, respectively.

4. "Spending my time for consultation with students to improve their work on individual or group projects" was strongly agreed by majority (44.65%) of the respondent teachers followed by the rest coming under agree (26.78%), disagree (23.21%) and undecided (5.35%), respectively.

5. "Group activities in the class encourage students to improve their own ideas about content issues." invoked undecided from most (42.85%) of the respondent teachers followed by agree (33.92%), strongly agree (14.28%), disagree (7.14%) and strongly disagree (1.78%) responses, respectively.

Table 4. Distribution of respondent teachers based on adequacy of physical facilities.   (N = 56)

S.No.	Items	Response Categories							
		Very much Adequate		Adequate		Less adequate		Inadequate	
		F	%	F	%	F	%	F	%
1.	Spacious room to sit	38	67.85	18	32.14	—	—	—	—
2.	Classrooms with computer & AC facility	16	28.57	17	30.35	15	26.78	8	14.28
3.	Adequate physical facilities like fan, furniture etc.....	6	10.71	43	76.78	7	12.50	—	—
4.	Lighting facility	26	46.42	30	53.57	—	—	—	—
5.	Adequate ventilation	22	39.28	34	60.71	—	—	—	—
6.	Ceiling fan	1	1.78	36	64.28	15	26.78	4	7.14
7.	Telephone facility	—	—	22	39.28	21	37.50	13	23.21
8.	Teacher's								
	a) Table	6	10.71	42	75	2	3.57	6	10.71
	b) Chair	—	—	30	53.57	21	37.50	5	8.92
9.	Lectern	17	30.35	36	64.28	—	—	3	5.35
10.	Audio Visual equipment								
	a) Over Head Projector	23	41.07	26	46.42	7	12.50	—	—
	b) Slide Projector	7	12.5	24	42.85	23	41.07	2	3.57
	c) Collar Mike	9	16.07	8	14.28	28	50.00	11	19.64

F = Frequency,   % = Percentage

6. "Students would address my method and expectations as somewhat accurate and flexible" was interestingly strongly agreed by the most (32.14%) of the respondent teachers followed by the rest coming under disagree and agree (30.35% each) and undecided (25.00%) categories, respectively.

7. "Group discussions conducted in the class to facilitate the students to think critically and improve their standards" was strongly agreed by the half of the (50.00%) respondent teachers followed by remaining giving undecided (26.78%), agree (14.28%), disagree (7.14%) and strongly disagree (1.78%) responses, respectively.

8. "Examples from teachers personal experience are used to emulate points about the material" was strongly agreed by majority (39.28%) of the respondent teachers followed by the rest coming under disagree (23.21%), agree (21.42%), undecided (10.71%) and strongly disagree (5.35%) response categories, respectively.

9. "Lecturing is a key factor of how teacher can teach each of the class sessions" was strongly agreed by the high proportion (41.07%) of the respondent teachers followed by the remaining coming under undecided (37.50%), agree (14.28%) and disagree (7.14%) categories, respectively.

10. "Teacher often illustrate the students, how to use various principles and concepts" was agreed by majority (44.65%) of the respondent teachers followed by rest coming under strongly agree (26.78%), undecided (16.07%) and disagree (12.50%) response categories, respectively.

Table 5. Distribution of respondent teachers according to their teaching styles.   (N = 56)

S.No.	Item	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
		F	%	F	%	F	%	F	%	F	%
1.	My teaching goal and method is to take care of a variety of student learning styles	17	30.35	18	32.14	19	33.92	2	3.57	—-	—-
2.	With my supervision, students work on course activities.	22	39.28	15	26.78	8	14.28	11	19.64	—-	—-
3.	Sharing my knowledge and ideas (views) with students is very key-factor to me.	17	30.35	2	3.57	8	14.28	11	19.64	—-	—-
4.	Spending my time for consultation with students to improve their work on individual or group projects.	25	44.65	15	26.78	3	5.35	13	23.21	—-	—-
5.	Group activities in the class encourage students to improve their own ideas about content issues.	8	14.28	19	33.92	24	42.85	4	7.14	1	1.78
6.	Students would address my method and expectations as some what accurate and flexible.	18	32.14	17	30.35	14	25.00	17	30.35	—-	—-
7.	Group discussions conducted in the class to facilitate the students to think critically and improve their standards.	28	50.00	8	14.28	15	26.78	4	7.14	1	1.78
8.	Examples from my personal experiences are used to emulate points about the material.	22	39.28	12	21.42	6	10.71	13	23.21	3	5.35
9.	Lecturing is a key factor of how I teach each of the class sessions.	23	41.17	8	14.28	21	37.50	4	7.14	—-	—-
10.	I often illustrate the students, how to use various principles and concepts.	15	26.78	25	44.65	9	16.07	7	12.50	—-	—-
11.	The course aims at specific goals and objectives which I want to accomplish.	12	21.42	21	37.50	17	30.35	4	7.14	2	3.57
12.	Students receive verbal or written feed back in the form of comments based on their performance.	21	37.50	8	14.28	20	35.71	7	12.50	—-	—-
13.	Students may describe me as a "store house of knowledge" that dispenses the facts and principles what they expect.	15	26.78	23	41.07	9	16.07	9	16.07	—-	—-
14.	My expectations from the student are well defined in the syllabus.	23	41.07	15	26.78	10	17.85	7	12.50	—-	—-
15.	The course contains more material than I have time available to accomplish it.	20	35.71	17	30.35	8	14.28	10	17.85	1	1.78
16.	Students might describe me as a "good coach" who works closely with someone to solve the problems in how to think and behave.	25	44.65	16	28.57	9	16.07	4	7.14	2	3.57
17.	I always motivate the students with a lot of personal support and encouragement to do best in the course.	25	44.65	13	23.21	10	17.85	8	14.28	—-	—-
18.	I keep high standards for students in the class.	21	37.50	19	33.92	11	19.64	3	5.35	2	3.57
19.	I teach students clear enough for completion of tasks in the course.	16	28.57	20	35.71	9	16.07	11	19.64	—-	—-
20.	I work with the students like a work group manager who delegates tasks and responsibilities.	22	39.28	17	30.35	16	28.57	1	1.78	—-	—-

F = Frequency, % = Percentage

11. "The course aims at specific goals and objectives which teacher wants to accomplish" was agreed by the most (37.50%) of the respondent teachers followed by the remaining giving undecided (30.35%), strongly agree (21.42%), disagree (7.14%) and strongly disagree (3.57%) responses, respectively.

12. "Students receive verbal or written feed back in the form of comments based on their performance" invoked undecided response from one third (35.71%) of the respondent teachers followed by strongly agree (37.50%), agree (14.28%), disagree (4.50%) responses respectively.

13. "Students may describe teacher as a "store house of knowledge" who dispenses the facts and principles what they expect" was agreed by the majority (41.07%) of the respondent teachers followed by rest coming under strongly agree (26.78%), undecided and disagree (16.07% each) response categories, respectively.

14. "Teachers expectations from the student are well defined in the syllabus." strongly agreed by the majority (41.07%) of the respondent teachers followed by the remaining coming under agree (26.78%), undecided (17.85%) and disagree (12.50%) response categories, respectively.

15. "The course contains more material than teacher have time available to accomplish" was strongly agreed by the higher proportion (35.71%) of the respondent teachers followed by the rest coming under agree (30.35%), disagree (17.85%), undecided (14.28%) and strongly disagree (1.78%) response categories, respectively.

16. "Students might describe teacher as a "good coach" who works closely with someone to solve the problems in how to think and behave" was interestingly strongly agreed by most (44.65%) of the respondent teachers followed by agree (28.57%), undecided (16.07%), disagree (7.14%) and strongly disagree (3.57%) response categories, respectively.

17. "Teacher always motivate the students with a lot of personal support and encouragement to do best in the course" was interestingly strongly agreed by the majority (44.65%) of the respondent teachers followed by rest coming under agree (23.21%), undecided (17.85%) and disagree (14.28%), response categories, respectively.

18. "Teacher keep high standards for students in the class" was interestingly strongly agreed by the most (41.07%) of the respondent teachers followed by the remaining coming under agree (33.92%), undecided (19.64%), disagree (5.35%) and strongly disagree (3.57%) response categories, respectively.

19. "Teacher can teach students clear enough for completion of tasks in the course" was agreed by the majority (35.71%) of the respondent teachers followed by rest coming under strongly agree (28.57%), disagree (19.64%) and undecided (16.07%) response categories, respectively.

20. "Teacher work with the students like a work group manager who delegates tasks and responsibilities" was interestingly strongly agreed by the most (39.28%) of the respondent teachers followed by the rest coming under agree (30.35%), undecided (28.57%) and disagree (1.78%) response categories, respectively.

These findings are inconformity with the findings of the Vijayabhinandana (2003).

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