



## PROFILE CHARACTERISTICS OF TEACHERS IN AGRICULTURAL COLLEGES OF ACHARYA N.G. RANGA AGRICULTURAL UNIVERSITY

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### ABSTRACT

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Instructional Technology is not merely a knowledge area that contracts only with audiovisual instructional materials. It is an approach to think about complications of teaching and learning to discover workable solutions. The study was conducted in Acharya N.G. Ranga Agricultural University, Lam, Guntur. A comprehensive personal interview schedule was used for collecting information. All the teachers available at the time of study from five constituent agricultural colleges of ANGRAU were selected as sample for the study. The respondents were asked to express their profile characteristics. The frequency and percentage were calculated for each profile characteristics. Majority of teachers were middle age, male, Ph.D. Degree holders, had 6 to 10 years of professional experience, assistant professors, taught 2 to 4 courses, and prepared course manual/ practical manual, had not published any books, had not published book chapters, had not guided any masters degree student, had not guided any doctoral degree student, had not handled any project, had no project in progress, had not attended any international seminars/ conferences/ symposia, had not attended any national seminars / conferences / symposia, per cent had not published any full length article, research notes and review articles in international journals , had published 6 to 10 full length articles in national journals, had not published any research notes and review articles in national journals, above half of teachers had undergone 1 to 3 national seminars had not undergone any of international trainings, had medium achievement motivation and medium empathetic ability.

**KEY WORDS:** Empathetic, instructional technology and profile.

### INTRODUCTION

The fundamental medium that helps a nation to carve a niche in terms of socioeconomic justice, opulence and security is essentially education. Education is a prime factor for achieving the varied goals of development. By indoctrinating social, economic, political, technological and cultural proficiencies in people, education transforms 'man' into productive and competent 'human capital' to undertake various developmental tasks. It brings desirable changes in knowledge, skills and attitude of human. The past fifty years have included more substantial changes than any other similar period in our educational history. Our present system should keep pace with the fast changing scenario of education so as to confer its benefits to the nation. Hence, a continual enhancement of the national educational system is a pre-condition, which aim to attain higher standards of living, innovation in technology and success in the international economic race. India has always been an agricultural based country, the agricultural education and research have great significance in the sustainable progress and development of human resource for the agricultural sector. India has

one of the world's largest agricultural education systems with sixty four State Agricultural Universities (SAUs), three Central Agricultural Universities (CAU), four Deemed Universities (DUs) and four general Central Universities with Agriculture faculty ([www.icar.org.in](http://www.icar.org.in)). These institutions enrol on an annual basis, around 15,000 students at UG level, over 7,000 students at PG and 1700 at Ph.D. level. Now India has more than 30000 scientists in this field.

Awareness and sensation are needed among the teachers about the importance of instructional technology in the educational scheme. The report of the Indian Education Commission (1964-66) mentioned that, "The destiny of India is being shaped in the classrooms". Therefore, the arduous responsibility lies with the teachers to build the future generations of the country to be more effective and efficient to face the upcoming scientific and technological challenges. This goal is to be achieved through effective instructional delivery by the teachers. As technology ensures more effectiveness and efficiency in the educational system and serves as an effective tool at the hands of the instructor, there exists a requirement

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to develop better usage of instructional technologies thereby they can effectively adopt the similar in instructional activities. The knowledge of Instructional Technology is beneficial to develop manpower in Agricultural Universities with a growing proficiency and competence in teaching. Although the teachers have the skill and knowledge about the subject of their specialization, each of them may not have the same about facilitating their students to learn the subject effectively and it is the rationale behind rendering knowledge and skills pertaining to instructional technology for Agricultural University Teachers. The teachers of Agricultural University at large need orientation about educational technology in general and instructional technology in specific. Hence an attempt was made to study the profile characteristics of teachers in agricultural colleges of ANGRAU.

## MATERIAL AND METHODS

Acharya N.G. Ranga Agricultural University (ANGRAU) was selected as the locale of study. There are eleven constituent colleges of the Acharya N.G. Ranga Agricultural University (ANGRAU). Out of eleven Colleges, five agricultural colleges namely S.V. Agricultural College, Tirupati, Agricultural College, Bapatla, Agricultural College Rajamahendravaram, Agricultural College Naira and Agricultural College Mahanandi were selected. All teachers from each college were selected as sample for the study. Data were collected with the help of interview schedule from November 2015 to January 2016. Data related to profile characteristics were collected from the teachers through personal interview method.

## RESULTS AND DISCUSSION

### 1. Age of teachers

It was observed from the Table 1 that, nearly half (49.44%) of the teachers belonged to middle age group, followed by old age (42.23%) and young (8.33%) age group. More than half of teachers were males followed by females. Even though the percentage of girl students was more in the under graduation in master's and doctoral programmes, the males were more. The probable reason might be that, the gender bias in higher education sector. Another reason could be male dominated society. The result was in conformity with Jyothi *et al.* (2008), Reddy and Maraty (2003).

**Table 1. Distribution of teachers according to their age (n = 180)**

S. No.	Category	Frequency	Percentage
1	Young age (up to 35 years)	15	8.33
2	Middle age (36-55 years)	89	49.44
3	Old age (above 55 years)	76	42.23
<b>TOTAL</b>		<b>180</b>	<b>100</b>

### 2. Gender

A view of Table 2 indicated that, more than half (58.88%) of teachers were male and remaining 41.12 per cent of teachers were female. More than half of teachers were males followed by females. Even though the percentage of girl students was more in the under graduation in master's and doctoral programmes, the males were more. The probable reason might be that, the gender bias in higher education sector. Another reason could be male dominated society in earlier decades. However, women empowerment is clearly seen because of several proactive measures taken by the government in last decade. The result was in conformity with Jyothi *et al.* (2008), Ravikanth (2007).

**Table 2. Distribution of teachers according to their gender (n=180)**

S. No.	Category	Frequency	Percentage
1	Male	106	58.88
2	Female	74	41.12
<b>TOTAL</b>		<b>180</b>	<b>100</b>

### 3. Education

A cursory look at Table 3 clearly depicted that, majority (81.12%) of the teachers were Ph.D. degree holders followed by P.G (18.88%) degree holders. Majority of the teachers had doctoral degree as their educational qualification. This was possibly due to the fact that most of the teachers were recruited into university with doctoral degree and also most of the teachers who joined with master's degree at the entry level may be pursuing doctoral degree as in service, as the doctoral degree is essential for promotions but also to upgrade their skills and knowledge. The findings were in line with the findings of Ziyana (2013).

**Table 3. Distribution of teachers according to their education (n=180)**

S. No.	Category	Frequency	Percentage
1	P.G	34	18.88
2	Ph.D.	146	81.12
3	PDF	0	0
<b>TOTAL</b>		<b>180</b>	<b>100</b>

**4. Experience**

It is evident from the Table 4 that, 38.89 per cent of teachers had 6 to 10 years of experience, followed by 16 to 20 years (23.89%), 11 to 15 years (17.22%), above 20 years (13.34%) and Up to 5 years (6.66%) of experience respectively. The possible reason for majority of the teachers having 6-10 years experience in teaching might be due to recruitment of the personnel with high qualification and posting of the recruits with good academic record to colleges. Furthermore, the teachers with good credentials might be interested in teaching. Emotionally teachers prefer to work in the respective colleges from where they studied. This finding was in agreement with the findings of Reddy (2000) and Reddy and Marty (2007).

**Table 4. Distribution of teachers according to their experience (n=180)**

S. No.	Category	Frequency	Percentage
1	Up to 5 years	12	6.66
2	6 to 10 years	70	38.89
3	11 to 15 years	31	17.22
4	16 to 20 years	43	23.89
5	>20 years	24	13.34
<b>TOTAL</b>		<b>180</b>	<b>100</b>

**5. Cadre**

An analytical look at the Table 5 revealed that, nearly half (48.89%) of the teachers were assistant professors, followed by 37.21 per cent were professors and 13.89 per cent were associate professor. Nearly half of teachers were Assistant Professors followed by Professors and Associate Professors. In general, universities will have more Assistant Professors and very few Professors. But slight deviation was observed. This may be due to the fact that majority of colleges are offering PG courses and

Professors were posted in these colleges for guiding the P.G. and Ph.D. students. Further Professors opted for teaching because of their priority of being in teaching, as well as location advantage of the colleges. This finding was in accordance with the findings of Reddy and Maraty (2003).

**Table 5. Distribution of teachers according to their cadre (n=180)**

S. No.	Category	Frequency	Percentage
1	Assistant Professor	88	48.89
2	Associate Professor	25	13.89
3	Professor	67	37.21
<b>TOTAL</b>		<b>180</b>	<b>100</b>

**6. Courses taught**

It is apparent from the Table 6 that, majority (70.06%) of the teachers taught 2-4 courses, followed by more than or equal to 5 courses (24.44%) and 5.56 per cent of the teachers taught one course. Majority of teachers were teaching 2-4 courses followed by 5 and above 5 courses. The reason behind the above trend might be four out of five colleges were offering post graduation which made teachers to handle 2-4 courses. Another reason might be that dearth of sufficient staff in few campuses.

**Table 6. Distribution of teachers according to the courses taught (n = 180)**

S. No.	Category	Frequency	Percentage
1	1 course	10	5.56
2	2-4 courses	126	70.06
3	≥5 courses	44	24.44
<b>TOTAL</b>		<b>180</b>	<b>100</b>

**7. Preparation of course material/practical manual**

It is evident from the Table 7 that less than half (43.34%) of the teachers prepared 3 to 4 course material/practical manual, followed by 39.44 per cent prepared 1 to 2, 12.77 per cent prepared five and above and 4.45 per cent did not prepare any course material /practical manual. Nearly half of teacher's prepared 3 to 4 course materials /practical manuals followed by above one third of teacher's prepared 1 to 2 course materials /practical manuals. The probable reason for above trend might be that the university is giving due weightage for preparation

of course materials /practical manuals in performance-based appraisal system (PBAS) and academic performance index (API) score based promotions and also because of the enthusiastic faculty and interest in making the teaching learning process more easy.

**Table 7. Distribution of teachers according to the preparation of course material/ practical manual (n = 180)**

S. No.	Category	Frequency	Percentage
1	0	8	4.45
2	1 to 2	71	39.44
3	3 to 4	78	43.34
4	≥ 5	23	12.77
<b>TOTAL</b>		<b>180</b>	<b>100</b>

## 8. Text books/book chapters published

Table 8 revealed that majority (91.11%) of teachers had not published any text book followed by (5.00%) 1-2 books, (2.78%) 3-4 books and (1.11%) had published more than five text books respectively. In case of book chapters 82.22 per cent of teachers had not published any book chapter, (6.12%) 1-2 book chapters, (6.66%) 3-4 book chapters and 5.00 per cent of teachers published five and above five book chapters. The possible reason for the above trend might be that writing text books and book chapters need large amount of efforts and teachers were not able to devote time because of heavy work load due to academic, additional duties and other non academic works.

**Table 8. Distribution of teachers according to the text books and book chapters published (n = 180)**

S. No.	Category	Text books		Book chapters	
		Frequency	Percentage	Frequency	Percentage
1	0	164	91.11	148	82.22
2	1 – 2	9	5.00	11	6.12
3	3 – 4	5	2.78	12	6.66
4	≥ 5	2	1.11	9	5.00
<b>TOTAL</b>		<b>180</b>	<b>100</b>	<b>180</b>	<b>100</b>

## 9. No of students guided

It is evident from Table 9 (a and b) that, majority (68.33%) and 35.55 per cent did not guide any of doctoral degree student and master's degree student respectively. About 14.44 per cent of teachers guided 1 to 2 doctoral degree students, followed by 9.44 and 7.77 per cent of teachers guided 3 to 4 and above 4 doctoral degree students respectively. On the other hand, 30.01 per cent of teachers guided 11 to 20 master's degree students followed by 27.22 and 7.22 per cent guided 1 to 10 and 20 and above master's degree students respectively. The possible reasons for these findings could be that lack of proper climate of developing specialization in subject matter areas, lack of clear-cut policy on allotting the M.Sc. and Ph.D. students to faculty and the choice was not given to the students as followed in other institutions and minimum period of service should be there to guide the Ph.D. or

**Table 9(a). Distribution of teachers according to the number of master degree students guided (n = 180)**

S. No.	Category	Frequency	Percentage
1	None	64	35.55
2	1 to 10	49	27.22
3	11 to 20	54	30.01
4	≥20	13	17.22
<b>TOTAL</b>		<b>180</b>	<b>100</b>



**Table 9(b). Distribution of teachers according to the number of doctoral students guided (n = 180)**

S. No.	Category	Frequency	Percentage
1	None	123	68.33
2	1 to 2	26	14.44
3	3 to 4	17	9.44
4	≥4	14	7.77
<b>TOTAL</b>		<b>180</b>	<b>100</b>

P.G students. Except in S. V. Agricultural College, Tirupati and Agricultural College, Bapatla, the intake of PG students was very minimal. Hence, efforts may be initiated by the university to review the accreditation policy and all the teachers need to be given an opportunity to guide the students. There should be a rider to be implemented that one teacher should not have more than 2 students at a time for guidance. The above finding is in accordance with findings of Vijayabhinandana (2003).

#### 10. Projects handled

It was surprising to note from Table 10 that an overwhelming 87.88 per cent of teachers did not handle any project so far in their service followed by 8.34 and 3.88 per cent of teachers handled 1 to 2 and above 2 projects respectively. As regards to projects in progress 92.23 per cent of teachers do not have any research project at present in progress. Only 6.66 per cent of teachers were having projects up to 2. Only 1.11 per cent of teachers were holding more than 2 projects. It was remarkable to note the findings from Table 10 only 8.34 per cent of the teachers have undertaken projects up to 2, while 3.88 per cent handled two and above two projects. 87.88 per cent of teachers did not have projects completed so far. Similar findings were noted in case of projects in progress too. The possible reason for this finding might be due to hectic workload in teaching, cumbersome procedures involved in processing projects, lack of encouragement, disincentive and involvement of the teachers in other non academic works. The mechanism of sanctioning projects to teachers does not exist at the university level. Competition exists for external projects with funding. Teachers did not show interest as they felt it as an additional burden and project execution requires meticulous attention and timely reporting and they might have upset with the tedious budgetary procedures

involved in executing the projects. Besides, most of the teachers may not be proficient in preparation of projects, writing proposals and unaware of funding sources due to lack of orientation. The findings are in line with findings of Vijayabhinandana (2003).

#### 11. Conferences/Symposiums/Workshops attended

It is evident from the Table 11 that, 2.78 per cent of teachers attended up to 2 international conferences / symposia/workshops and only 0.56 per cent of teachers attended 5 and above international conferences / symposia/workshops and 96.66 per cent of teachers did not attend international conferences / symposia/workshops. On other hand 25.56, 18.34 and 7.77 per cent of teachers attended 1 to 2, 3 to 4 and 5 and above national conferences / symposia/workshops respectively and 48.33 per cent of teachers did not attend national conferences / symposia/workshops followed by. Majority of teachers did not attend any international seminars / conferences / symposia; on the other hand nearly half of the teachers have not attended national seminars / conferences / symposia. The probable reason may be limitation from university side as it involves huge expenditure and holding very few research projects by the teachers with outside funding could be the reasons for not participating in the seminars/workshops/symposia held outside the country. There is a need to have collaborative research projects with outside funding and sharing of expertise. The above finding is in line with findings of Vijayabhinandana (2003)

#### 12. Papers published

A cursory look of Table 12(a) revealed that, 37.77 per cent of teachers 1 to 5 full articles, 3.33 per cent 6 to 10 and 1.12 per cent above 10 full articles respectively and 57.78% of teachers did not publish any of the full articles. Majority (82.23%) of teachers did not publish any research notes followed by 16.11, 1.11 and 0.55 per cent published 1 to 5, 6 to 10 and above 10 research notes respectively. In case of review articles majority (61.12%) of teachers did not publish any review article followed by (19.44%) 1 to 5, (13.88%) 6 to 10 and (5.56%) of teachers published above 10 review articles. A bird's eye view at Table 12(b) revealed that majority (56.67%) of teachers published 6-10 research articles in national journals followed by none (18.33%), 1-5 (16.11%) and (8.89%) teachers published above ten research articles in national journals. Majority (58.33%) of teachers did not publish any research notes followed by (23.89%)

**Table 10. Distribution of teachers according to the number of projects handled (n = 180)**

S. No	Category	Completed		In progress	
		Frequency	Percentage	Frequency	Percentage
1	None	158	87.88	166	92.23
2	1 to 2	15	8.34	12	6.66
3	$\geq 2$	7	3.88	2	1.11
<b>TOTAL</b>		<b>180</b>	<b>100</b>	<b>180</b>	<b>100</b>

**Table 11. Distribution of teachers according to the conferences/ symposia/ workshops attended (n = 180)**

S. No	Number of times attended	International		National	
		Frequency	Percentage	Frequency	Percentage
1	None	174	96.66	87	48.33
2	1 to 2	5	2.78	45	25.56
3	3 to 4	1	0.56	33	18.34
4	5 and above	0	0.00	14	7.77
<b>TOTAL</b>		<b>180</b>	<b>100</b>	<b>180</b>	<b>100</b>

**Table 12(a). Distribution of teachers according to number of papers published (n = 180)**

S. No.	International journals	Full articles		Research notes		Review	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1	None	104	57.78	148	82.23	110	61.12
2	1 to 5	68	37.77	29	16.11	35	19.44
3	6 to 10	6	3.33	2	1.11	25	13.88
4	Above 10	2	1.12	1	0.55	10	5.56
<b>TOTAL</b>		<b>180</b>	<b>100</b>	<b>180</b>	<b>100</b>	<b>180</b>	<b>100</b>

**Table 12(b). Distribution of teachers according to the papers published in national journals (n = 180)**

S. No.	National journals	Full articles		Research notes		Review	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1	None	33	18.33	105	58.33	120	66.67
2	1 to 5	29	16.11	43	23.89	22	12.22
3	6 to 10	102	56.67	27	15.00	25	13.89
4	Above 10	16	8.89	5	2.78	13	7.22
<b>TOTAL</b>		<b>180</b>	<b>100</b>	<b>180</b>	<b>100</b>	<b>180</b>	<b>100</b>

1-5, (15.00%) 6-10 and (2.78%) published above ten research notes in national journals. In case of review articles majority (66.67%) of teachers did not publish any review article followed by (13.89%) 6 to 10, (12.22%) 1-5 and (7.22%) published above ten review articles. Majority of teachers did not publish any article, research notes and review articles in national and international journals. The possible reasons for the above findings might be due to heavy workload, lack of sufficient research work except meeting the postgraduate requirements, lack of motivation and lack of competency in writing scientific articles. Further, most of the teachers belonged to middle to old aged and got promotions under merit promotion and career advancement schemes. As a result, teachers might not be showing interest in publishing articles. Further, the primary responsibility of teachers is teaching and research is the second priority and only senior staff had the opportunity to guide the students and doing research and hence most of the teachers still did not publish articles in international journals. Some of the teachers were under the impression that the research articles published are not reaching anywhere and it is becoming purely an academic exercise.

### 13. Trainings undergone

Table 13 depicts that majority (52.77%) of teachers have undergone one to three national trainings followed by 26.66 per cent four to six, 12.24 per cent did not undergo any national trainings and 8.33 per cent of teachers have undergone more than six national trainings. In case of international trainings majority (75.55%) of teachers have not undergone any international training followed by 21.12 per cent one to three, 3.33 per cent four to six and none had undergone above six international trainings. Majority of teachers have undergone 1 to 3 national trainings, three fourth of teachers have never undergone any international trainings. The reason for above findings might be due to heavy workload, lack of sufficient research work except meeting the postgraduate requirements and lack of motivation.. Further, most of the teachers belonged to middle to old aged and got promotions under merit promotion and career advancement schemes. As a result, teachers might not be showing interest in attending trainings. Hence most of the teachers did not undergo trainings at national and international level. The above finding is in line with Sharanappa (2015).

**Table 13. Distribution of teachers according to number of trainings undergone**

(n = 180)

S. No	No of trainings	National		International	
		Frequency	Percentage	Frequency	Percentage
1	None	22	12.24	136	75.55
2	1 to 3	95	52.77	38	21.12
3	4 to 6	48	26.66	6	3.33
4	Above 6	15	8.33	0	0.00
<b>TOTAL</b>		<b>180</b>	<b>100</b>	<b>180</b>	<b>100</b>

### 14. Achievement motivation

It is apparent from the Table 14 that majority (71.66%) of teachers had medium achievement motivation followed by 15.56 and 12.78 per cent high and low levels of achievement motivation respectively. It was apparent from the results pertaining to achievement motivation that majority (71.66%) of the teachers had medium achievement motivation. Medium level of n-Ach might be the result of less favourable working climate in

the university such as individual freedom, career advancement, lack of recognition and incentives resulting in lack of high achievement motivation. Hence, creating an environment that should raise the level of achievement motivation of teachers and to change their mindset that excelling in one's activity gratifies inner feeling and helps in better performance. This finding was in agreement with the findings of Reddy (2000).

**Table 14. Distribution of teachers according to their achievement motivation (n = 180)**

S. No.	Category	Frequency	Percentage
1	Low	23	12.78
2	Medium	129	71.66
3	High	28	15.56
<b>TOTAL</b>		<b>180</b>	<b>100</b>
<b>Mean = 28.63</b>		<b>SD = 3.55</b>	

**15. Empathetic ability**

Findings from the Table 15 revealed that major proportion (79.45%) of teachers had medium empathetic ability followed by 11.66 and 8.89 per cent high and low levels of empathetic ability respectively. Majority of the teachers had medium empathetic ability and almost equal proportions of teachers had low and high empathetic ability. Empathetic ability facilitates in understanding the students' individual differences. Unless the teachers keep themselves in shoes of the students, it is not possible to teach well. The person with high empathetic ability could better understand the needs, problems of students and teach effectively. The possible reason for having medium empathetic ability among the most of the teachers might be due to lack of understanding on individual differences, hectic schedules, larger class size, lack of experience and more syllabus to be covered. Further, lack of proper training in psychological aspects could have led to the average empathetic ability in majority of the teachers. This finding was in conformity with the findings of and Vijayabhinandana (2003).

**Table 15. Distribution of teachers according to their empathetic ability (n = 180)**

S. No.	Category	Frequency	Percentage
1	Low	16	8.89
2	Medium	143	79.45
3	High	21	11.66
<b>TOTAL</b>		<b>180</b>	<b>100</b>
<b>Mean = 24.86</b>		<b>SD = 2.59</b>	

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