P-ISSN: 2618-0723
E-ISSN: 2618-0731

NAAS Rating: 5.04
www.extensionjournal.com

International Journal of Agriculture Extension and Social Development

Volume 7; Issue 5; May 2024; Page No. 370-374

Received: 26-02-2024
Accepted: 30-03-2024

Indexed Journal
Peer Reviewed Journal

Assessment of perceived employability skills among agricultural graduates in Andhra Pradesh

[1]Harisha N, [2]Gadigappa M, [3]Uday Bhaskar M and [4]Chinmayi V

[1]Assistant Professor, Department of Agricultural and Horticultural Sciences, Vignan University, Vadlamudi, Andhra Pradesh, India

[2]Assistant Professor, Department of Agricultural Extension, KL University, Vijayawada, Andhra Pradesh, India

[3]Assistant Professor Food and Agri Business School, Hyderabad, Telangana, India

[4]Assistant Professor, College of Agriculture, Gangavati, Karnataka, India

DOI: https://doi.org/10.33545/26180723.2024.v7.i5e.637

Corresponding Author: Harisha N

Abstract

Agricultural universities have adapted by incorporating diverse courses into their syllabi to impart the latest advancements in technical agricultural education. However, the sector grapples with significant challenges like rising unemployment rates and a shift in job opportunities from public to private sectors. To address this, revitalizing agricultural education is crucial. One potential reason for high unemployment rates among agricultural graduates could be a gap between graduates' skills and industry demands. While universities rigorously assess technical competencies, bridging the academic-industry gap remains vital. The study, conducted from 2021 to 2022, involved 120 final year students from Sri Krishnadevaraya College of Agricultural Sciences and Sri Krishnadevaraya College of Horticultural Sciences in Andhra Pradesh. Employing an *ex-post-facto research* design, 16 employability skills were assessed through Google Forms, categorized into 'Most Important', 'Important', and 'Not Important'. illustrates the distribution of respondents based on their level of employability skills. It is noteworthy that 44.17 percent of the participants exhibited medium-level employability skills, while 37.50 percent demonstrated low-level employability skills. Conversely, only 18.33 percent of respondents displayed high-level employability skills. In summary, while agricultural universities strive to equip graduates with relevant skills, addressing industry demands through aligned curricula is essential to enhance graduates' employability.

Keywords: Employability, agriculture, job market, skills, curricula, academic-industry gap

Introduction

Agricultural universities have diversified their syllabi by incorporating various courses to stay abreast of the latest trends in technical agricultural education. However, as highlighted by Agnihotri *et al.* (2014) [1], escalating unemployment rates and a transition of job opportunities from the public to the private sector pose significant challenges that must be addressed to invigorate and enhance the attractiveness of agricultural education. One potential contributing factor to the high unemployment rates among agricultural graduates, as suggested by Alibaygi *et al.* (2013) [2], is a mismatch or gap between the skills possessed by the unemployed and those demanded by today's evolving economy, particularly within the dynamic agricultural industry. This discrepancy underscores the need for a closer alignment between educational curricula and the changing requirements of the agricultural workforce.

The AGree report on Food and Agricultural Education in the United States, as highlighted by Mercier (2015) [6], emphasizes the critical necessity for the agricultural education sector to furnish a workforce equipped to confront the escalating complexities within the agricultural domain. As the spectrum of challenges confronting the agricultural sector expands and the requisite expertise to address emerging issues becomes more imperative, the agricultural education system must evolve comprehensively and refine its approaches to effectively tackle the demands associated with global food provision while ensuring the sustainability of natural systems.

Hurst *et al.* (2015) [5] corroborate these assertions, illustrating their applicability on a global scale. In order to enhance competitiveness, agricultural enterprises and natural resource sectors must adapt to the shifting dynamics of the global marketplace. Herein lies the pivotal role of the agricultural education system, tasked with furnishing a workforce attuned to the exigencies of the contemporary global landscape (Hurst *et al.*, 2015; Zubovic *et al.*, 2009) [5, 10].

According to Goecker *et al.* (2015) [4], an estimated average of 57,900 positions annually will become available for graduates holding bachelor's degrees or higher in fields related to food, agriculture, renewable natural resources, and environmental sciences. However, projections indicate that merely 61.00 percent of these vacancies are anticipated to be filled by graduates specializing in these disciplines. Of these positions, approximately 7,000 are expected to be

within the realms of education, communication, and governmental services. It is imperative that agricultural education and communication programs adapt to equip students with the requisite skills to meet the evolving demands of agricultural employers, thereby addressing the challenges posed by the 21st century (Robinson, 2013) [8].

The study delved into the career trajectories pursued by graduates of the University of Missouri's agricultural education program. It also examined the job satisfaction levels of these graduates, identified the employability skills necessary for their respective careers, and evaluated the extent to which the program's curriculum contributed to the development of these skills. Findings revealed a diverse array of career paths taken by graduates, with around two-thirds securing roles as secondary agriculture teachers, sales representatives, or in managerial positions. Interestingly, both graduates teaching secondary agriculture and those employed in industry expressed similar levels of satisfaction with their chosen careers. For graduates who transitioned between jobs, shifts in career goals or aspirations emerged as the primary influencing factor, while feeling unprepared for the new position was not a significant consideration. Among the identified employability skills, graduates highlighted the importance of "getting along with people," "planning and completing projects," and "analyzing information to make decisions." Notably, the need for improvement in the skill of "analyzing information to make decisions" was particularly pronounced when considering the contribution of the program's curriculum.

Skill Deficiency in India

According to estimates from the National Skill Development Policy, India's current skill base lags significantly behind that of other developed economies worldwide. The country's vocational training capacity is currently estimated at approximately 3.1 million, while data from the 61st round of the National Sample Survey Organization (2004-05) indicates a need for around 12.8 million skilled individuals. This disparity is exacerbated by the fact that nearly 90% of the workforce is engaged in the unorganized sector, where skills are typically acquired through informal apprenticeship systems. Unfortunately, the existing formal training infrastructure falls short in addressing the specific skill requirements of this sector, resulting in a substantial gap between skill demand and supply (www.labour.gov.in/policies/national-policy-skill-development/26.3.2024).

To fully capitalize on India's demographic dividend, it is imperative to enhance the skill sets of its workforce to meet the evolving demands for skilled manpower across various regions. One of the core missions of public universities is preparing students to enter the workforce. Understanding and meeting the needs of employers and the skills new graduates will take with them into the workplace is vital when developing curricula and degree programs. In order to redesign curricula and degree programs, administrators of colleges of food, agriculture, and natural resources wanted to consider specific skills and experiences that could be changed to help students meet employer expectations.

Employability skill development initiatives in Agricultural Education

The Experiential Learning Programme has made significant strides, with a total of 426 modules sanctioned to agricultural universities by the end of the XII plan. During the 2017-18 period, fifteen new Experiential Learning Units were introduced, bringing the total count to 441. Notably, over 26,000 students have undergone training, acquiring diverse skills in various domains. Many of these students have leveraged their newfound expertise to establish their own enterprises (www. education2.icar.gov.in/4.3.2024)

The programme's core objective is to foster professional skills and knowledge through hands-on experience, bolstering confidence, project management abilities, and enterprise management acumen among participants. It serves as an effective platform for students to embrace a "Learning by Doing" and "Seeing by Believing" approach, imparting a fresh direction to undergraduate programmes in agriculture, veterinary sciences, horticulture, forestry, and allied disciplines. Typically spanning one semester in the final year, the programme is designed to cultivate critical thinking, proficiency, managerial prowess, and human resource development within these sectors.

Recognizing the evolving needs of the agricultural industry, institutions are urged to tailor their curricula accordingly (Rao *et al.,* 2011) [7]. Understanding the requisite employability skills not only allows for an evaluation of the agricultural education system but also facilitates an assessment of whether the current curriculum aligns with industry demands. Consequently, insights gleaned from this study serve as a guide for refining the curriculum to better meet industry requirements. Through this study, we aim to shed light on the skill requirements of the agricultural industry and gauge students' perceptions of their own capabilities in meeting these demands within the private agricultural sector.

Materials and Methods

The study was conducted over the period of 2021 to 2022, encompassing a sample of 120 students from two prominent agricultural institutions in Andhra Pradesh, namely Sri Krishnadevaraya College of Agricultural Sciences (Affiliated to ANGRAU, Lam Guntur) and Sri Krishnadevaraya College of Horticultural Sciences (Affiliated to YSRHU, Venkatarayuni Gudem). The study employed an *ex post facto* research design. The sample comprised 60 Final B.Sc (Hons) Agriculture and 60 B.Sc (Hons) Horticulture students, collectively 120 selected using a purposive sampling method.

Data collection was facilitated through Google Forms, which allowed for efficient gathering of responses to a questionnaire comprising 16 employability skills deemed crucial for effective job performance. Participants were asked to rate the importance of these skills along a continuum ranging from 'Most Important' to 'Important' to 'Not Important'. This approach enabled a nuanced understanding of students' perceptions regarding the significance of various employability skills in the context of their future career prospects.

To assess students' perceptions comprehensively, a 67-item questionnaire adapted from Robinson (2006) [3] was administered. Participants were tasked with rating their level of competence and the importance of each skill on a scale ranging from 1 (indicating no importance or competence) to 3 (indicating major importance or competence). This

rigorous methodology aimed to capture a holistic view of students' perspectives on the relevance and significance of different employability skills for their prospective career success.

The utilization of descriptive statistics facilitated a thorough analysis of the collected data, allowing for insights into the distribution and perceptions of employability skills among the sampled students. This systematic approach not only provided valuable insights into the current state of students' perceptions but also offered valuable implications for educational curricula and career development initiatives aimed at enhancing students' readiness for the job market.

Results and Discussion

Table 1: Distribution of Agricultural Students according to Employability skills

S. No.	Particulars	F	%
1.	Low employability Skills(Mean-S.D)	42	37.50
2.	Medium employability Skills Mean+-S.D)	53	44.17
3.	High employability Skills ((Mean-S.D)	22	18.33
	Mean=2.17 SD=0.79	120	100

Table 1 illustrates the distribution of respondents based on their level of employability skills. It is noteworthy that 44.17 percent of the participants exhibited medium-level employability skills, while 37.50 percent demonstrated low-level employability skills. Conversely, only 18.33percent of respondents displayed high-level employability skills.

The participants might come from educational institutions that focus more on theoretical knowledge rather than practical skills development. Thus, they might lack the practical skills needed for employment. Some participants may come from disadvantaged backgrounds or regions with limited access to resources such as career counselling, job training programs, or internships. This lack of exposure and support can hinder the development of employability skills. The education system may not be adequately preparing students for the demands of the job market. There might be a disconnect between the skills taught in educational institutions and those required by employers. Employability skills such as communication, teamwork, problem-solving, and adaptability are often considered equally important as technical skills. If participants have not received training or exposure to develop these soft skills, they may struggle to demonstrate high-level employability skills.

This finding underscores the importance of integrating skill-building initiatives into educational curricula to ensure that students are adequately equipped to meet the demands of the job market. Furthermore, it emphasizes the significance of ongoing assessment and enhancement of employability skills throughout the educational journey to foster a workforce that is both competent and competitive in today's dynamic employment landscape.

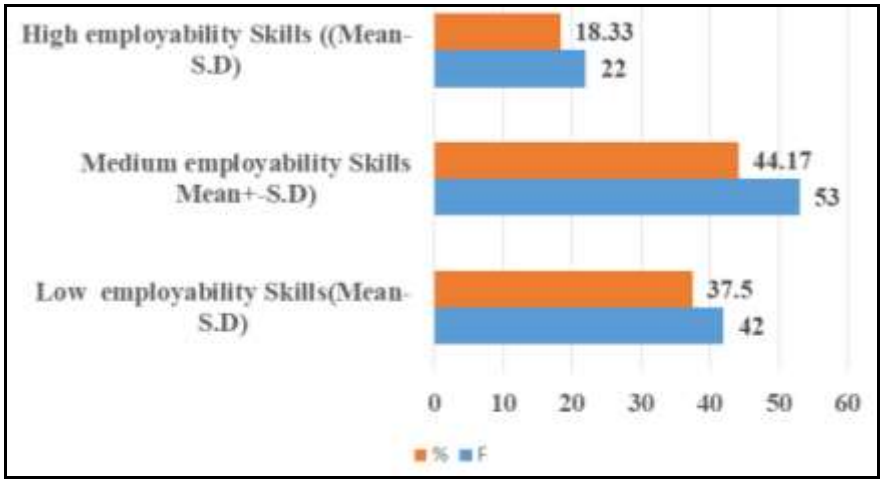

Fig 1: Distribution of respondents based on perceived employability skills

Table 2: Employability skills of Agricultural Students, n=120

S. No.	Statements	Very important	Important	Not important	Mean	SD
1	Motivation	50 (41.67)	35 (29.17)	35 (29.17)	2.125	0.702
2	Management skills	66(55.00)	33 (27.50)	21 (17.50)	2.375	0.782
3	Leadership skills	12 (10.00)	45 (37.50)	63 (52.50)	1.875	0.871
4	Problem solving skills	11 (9.17)	15 (12.50)	94 (78.33)	1.308	0.670
5	Communication skills	60 (50.00)	40 (33.33)	20 (16.67)	2.333	0.878
6	Creativity skills	11 (9.17)	25 (20.83)	84 (70.00)	1.392	0.662
7	Risk taking ability	20 (16.67)	45 (37.50)	55 (45.83)	1.708	0.849
9	Time management	17 (14.17)	45 (37.50)	58 (48.33)	1.658	0.866
10	Positive attitude	45 (37.50)	50 (41.67)	25 (20.83)	2.167	0.755
11	Team building	7 (5.83)	35 (29.17)	78 (65.00	1.408	0.891
12	Decision making	22 (18.33)	20 (16.67)	78 (65.00)	1.533	0.825
13	Record keeping	39 (32.50)	46 (38.33)	35 (29.17)	2.033	0.896
14	Planning	40 (33.33)	56 (46.67)	25 (20.83)	2.142	0.816
15	Commitment	53 (44.17)	45 (37.50)	22 (18.33)	2.258	0.731
16	Competitive Spirit	50 (41.67)	40 (33.33)	30 (25.00)	2.167	0.772

Table 2 depicted that in case of Motivation skills a substantial portion of participants (41.67%) rated motivation as very important, indicating its perceived significance in the context of employability skills. However, a notable proportion also considered it not important (29.17%), suggesting some variance in opinions regarding its relevance. In case of Management skills, the majority of respondents (55.00%) deemed management skills as very important, highlighting their perceived significance in the job market. A smaller fraction considered them important (27.50%), while an even smaller group rated them as not important (17.50%). With regard to Leadership skills, Interestingly, leadership skills received mixed responses, with a minority (10.00%) rating them as very important, while the majority considered them either important (37.50%) or very important (52.50%). This suggests a strong consensus regarding the importance of leadership skills among the participants.

Furthermore, in view of Problem-solving skills, the overwhelming majority (78.33%) regarded problem-solving skills as very important, indicating their critical role in employability. Only a small fraction of respondents considered them not important (9.17%). In respect to Communication skills were widely recognized as important, with half of the participants (50.00%) rating them as very important. However, a significant portion also rated them as important (33.33%), underscoring their essential nature in professional settings. Creativity skills provided a small minority (9.17%) considered creativity skills as very important, the majority (70.00%) deemed them as such, indicating a strong consensus on their significance. Only a small fraction of respondents rated them as not important (9.17%). In relation to Risk-taking ability, participants showed varying opinions on the importance of risk-taking ability, with a relatively balanced distribution across the three categories - very important (16.67%), important (37.50%), and not important (45.83%).

In regard with Time management was predominantly viewed as important, with nearly half of the participants (48.33%) rating it as very important. A substantial portion also considered it important (37.50%), highlighting its perceived significance in the professional sphere. Positive attitude received mixed responses, with a considerable proportion rating it as important (41.67%) or very important (37.50%). However, a notable fraction also considered it not important (20.83%). Team building skills, a small minority (5.83%) rated team building as very important, the majority (65.00%) deemed it as such, indicating strong consensus on its significance. Only a small fraction of respondents considered it not important (29.17%).

In view of Decision-making skills were predominantly viewed as not important by the majority (65.00%) of participants, indicating a lack of consensus on their significance. A small minority considered them important (16.67%) or very important (18.33%). Responses for record-keeping skills were relatively balanced, with a notable portion rating them as important (38.33%) or very important (32.50%). However, a significant fraction also considered them not important (29.17%). With regard to Planning skills were widely recognized as important, with nearly half of the participants (46.67%) rating them as very important. A substantial portion also considered them important (33.33%), highlighting their perceived significance in professional contexts. Commitment Skills received mixed responses, with a considerable portion rating it as important (37.50%) or very important (44.17%). However, a notable fraction also considered it not important (18.33%). Finally, Competitive spirit found a substantial portion rated competitive spirit as very important (41.67%) or important (33.33%), a significant fraction also considered it not important (25.00%), indicating varying opinions on its relevance.

Overall, the data provides insights into the perceived importance of different employability skills among the participants, highlighting the varying degrees of consensus and divergence in opinions. These findings can inform educational and professional development initiatives aimed at enhancing students' readiness for the job market. This perception may be attributed to the prevailing belief among students that decision-making responsibilities primarily rest with heads of institutions or organizations.

One notable aspect highlighted in the study is the impact of experiential learning programs (ELP) and internships on the acquisition of employability skills. Many students undergo these programs during their final year of B.Sc. (Hons.) Agriculture studies, enabling them to develop essential skills such as leadership, management, time management, and coordination. The exposure gained through ELPs and internships plays a pivotal role in shaping students' careers, equipping them with practical knowledge and skills that are highly valued in the job market.

This finding underscores the significance of hands-on learning experiences in bridging the gap between theoretical knowledge and practical application, thereby enhancing students' employability. It also emphasizes the importance of integrating experiential learning opportunities into educational curricula to ensure that students are adequately prepared for the demands of the workforce. By leveraging these experiences, educational institutions can effectively equip students with the skills and competencies needed to thrive in their chosen careers.

Conclusion

Employability skills are essential prerequisites for agricultural graduates to excel in their jobs. Currently, there exists a disparity between the skills anticipated by employers and those possessed by employees, resulting in subpar performance from the latter as perceived by the former. Bridging this skills gap is imperative, and educational institutions play a crucial role in this endeavour. By offering a range of interventions such as trainings, workshops, internships, experiential learning programs, and personality development classes, educational institutions can equip students with the requisite skills to thrive in their respective roles. These initiatives aid in transforming students into technically proficient individuals capable of meeting the demands of the agricultural sector. Regular capacity-building initiatives at the college level not only enhance the reputation of educational institutions but also serve as incubators for producing highly employable graduates for the agricultural industry. Ultimately, this concerted effort contributes to the advancement of the farming community by ensuring a steady supply of skilled personnel who can effectively contribute to agricultural

development and innovation.

References

1. Agnihotri RL, Bonney AL, Dixon & Erffmeyer R. Developing a state holder approach for recruiting top level sales students. Journal of Market Education. 2014;36(1):75-86.
2. Alibaygi AH, Barani S, Karamidehkordi E, Pouya M. Employability Determinants of Senior Agricultural Students in Iran. Journal of Agricultural Science and Technology. 2013;15:673-683.
3. Garton BL, Robinson JS. Career paths, job satisfaction, and employability skills of agricultural education graduates. NACTA Journal. 2006;50(4):31-36. Available from: https://www.proquest.com/scholarly-journals/career-paths-job-satisfaction-employability/docview/214370174/se-2.
4. Goecker AD, Smith E, Fernandez JM, Ali R, Theller R. Employment opportunities for college graduates in food, agriculture, renewable natural resources, and the environment: United States, 2015-2020 (USDA Report); c2015. Retrieved from https://www.purdue.edu/usda/employment.
5. Hurst SD, Conner NW, Stripling CT, Blythe J, Giorgi A, Rubenstein ED, *et al*. An exploration of the formal agricultural education system in Trinidad and Tobago. Journal of Agricultural Education. 2015;56(1):141-154.
6. Mercier S. Food and agricultural education in the United States; c2015. Retrieved from www.foodandagpolicy.org.
7. Rao DR, Agrawal R, Nanda SK, Awasthi IC, Joshi GP, Bhattacharya S, Kumar D. Assessment of Future Human Capital Requirements in Agriculture and Allied Sectors. NAIP Project Report, National Academy of Agricultural Research Management, Hyderabad, India. 2011:410.
8. Robinson J. Assessing the Employability Skills of University of Kentucky College of Agriculture Graduates: A Comparison of Hard and Soft Science Disciplines. NACTA Journal. 2006;53(4):56-62.
9. Robinson SJ, Garton BL. An assessment of the employability skills needed by graduates in the college of agriculture, food, and natural resources at the University of Missouri. Journal of Agricultural Education. 2013;49(4):96-105. doi:10.5032/jae.2008.04096.
10. Zubović J, Domazet I, Stošić I. Development of human capital as a tool for improving productivity of agricultural sector - Case of Serbia. Proceedings of the Eurpoean Association of Agricultural Economists Seminar, Belgrade, Serbia. 2009;113:451-459. Retrieved from http://purl.umn.edu/57491.