Full Length Research Paper

Perception of supervisors about secondary schools vocational agricultural science teachers' employability skills in Bauchi and Gombe States, Nigeria

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The purpose of this study was to determine the supervisors' perception of employability skills needed by graduates teaching Agriculture Science in secondary schools. Two research questions guided the study. The design of this study was a survey research design. The area for this study was Bauchi and Gombe States. The population for this study includes all the supervisors of Agriculture Education graduates teaching Agric Science in secondary schools. Purposive sampling was used to select 25 supervisors each from Gombe and Bauchi states and, totalling 50 respondents. The instrument was a structured questionnaire which was validated and pilot tested to obtain its reliability coefficient (Cronbach's Alpha) of 0.98. Data collected were analyzed using AMOS 18 statistical packages for windows. Findings of this study revealed that the supervisors have perceived the employability skills needed by graduates for teaching agricultural science in secondary schools as important and the graduates are competent. It is recommended that all the employability skills be retained or included in the university agriculture education curriculum. That means more "hands-on" should be incorporated in the classroom teaching.

Key words: Perception, supervisors, vocational agriculture, teachers, employability skills.

INTRODUCTION

Countless studies have evaluated exactly what supervisors are looking for in their new employees. Badal (2000) avowed that the assessment of supervisor satisfaction in graduate preparedness after graduating from institutions of higher education is important. This can assist in providing tangible evidence of the quality of education that students are receiving and its relevance to the workforce. What are the skills that are most desired by supervisors? Are these the same skills that are being taught in academic classrooms? Zinser (2003) concluded that communication and interpersonal relations; teamwork and problem-solving; and managing resources are key elements of employability skills. Robinson (2006) and

Robinson and Garton (2007) indicated that leadership skills, communication skills and conflict management skills are some of the employability skills desired by supervisors.

The National Association of College and Employer (NACE) is a professional association that connects college career services to potential employers. NACE has compiled a list of about 20 skills requested by supervisors. Prospective supervisors saw greater importance in Problem-solving, oral communication, decision-making and analytical ability, written communication and creativity. Faculty members saw greater importance in ethical values, project management and persuasive ability. This

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discrepancy in perspective is not entirely uncommon. These skills are considered to be important for potential graduates to possess and apply to their job. Problem-solving skills are those that include the ability to recognize and define problems, invent and implement solutions, and track and evaluate results (Carnevale et al., 1990). Problem-solving skills are often the most requested from employers. Coplin (2003) argues that successful graduates have strong verbal communication skills. This verbal communication can lead to under-standing between one another. Deemed as the most direct way of passing information, oral communication is considered as the ability to present information verbally to others, either one-to-one or in groups.

Badal (2000) conducted a study aimed at under-standing the competences being taught in education programs and being sought after by employers of graduates of university. Supervisors sought tangible skills such as taking initiative, listening, problem-solving, and being flexible and open to change. However, educators emphasized team building and knowledge of their courses. Agreement was reached on the importance and teaching of decision-making skills and accountability for one's actions. There are differences between skills and behaviors being taught and learned in higher education classrooms and those skills and behaviors being sought by potential supervisors. Competency-based approach to university education is therefore necessary and it is feasible to congregate workplace demands

The employability skills deemed most important by agriculture graduates and their supervisors are problem-solving and motivation to their jobs. Supervisors felt that working well with fellow graduates, motivation, organi-zation, and team management were most important. Newly hired graduates saw themselves most competent at working independently, while their supervisors perceived motivation to be the newly hired graduates' strongest skill (Robinson, 2008). Shivpuri and Kim (2004) reported that supervisors rated six of the 12 constructs as "very important" while department heads ranked only two of the 12 same constructs as "very important." The two constructs that were agreed upon were ethics and integrity and knowledge. Supervisors also stressed the importance of leadership, interpersonal skills, adaptability and life skills, and perseverance. Coplin (2003) argues that supervisors want to hire graduates who are capable leaders and can motivate their co-workers in the process. Brungardt and Gould (2001) further support this notion, stating that supervisors want graduates who are deemed as self-starters and value being empowered in the workplace.

Many feel that there is a skills gap between the manners in which students are prepared for the real world in a university setting and what they will need to be successful in the workplace – and for life in general. This skills gap discussion shifts the focus from workplace preparation to the responsibility of higher education (Cox

and King, 2006). Supervisors want to hire students that are ready for the workplace. This apparent "skills gap" serves as a call to universities to consider incur-porating employability skills into their programs to close the gap. This is because skill gap makes the graduates to lack the readiness needed to perform to the standards of the employers (Crebert et al., 2004).

Statement of the problem

Attempts have been made at defining the employability skills graduates need to possess upon entering the workforce; few studies have looked specifically at agriculture teacher's supervisors. Specifically, there is a need to understand which employability skills are being sought by agriculture teacher supervisors (in teaching and) to determine whether or not agriculture education university graduates possess the employability skills desired by their supervisors (Garton and Robinson, 2006). Shivpuri and Kim (2004) reported that "many feel that there is a skills gap between the manners in which students are prepared for the real world in a university setting and what they will need to be successful in the workplace – and for life in general". Supervisors want to employ only graduate that are ready for the workplace. Supervisors of teachers in other part of the world confirmed that, graduates are entering the workforce without the skills needed for career success (Peddle, 2000).

Purpose of the study

The purpose of this study was to determine the per-ception of supervisors on the employability skills needed by graduates teaching Agriculture Science in secondary schools. Specifically, the study will:-

1. Determine supervisors' perceptions of the importance of the employability skills needed by graduates to be successful in teaching Agricultural Science in secondary schools.
2. Determine supervisors' perceptions of the graduates' level of competence at performing the employability skills needed for teaching Agricultural Science in secondary schools.

Research questions

The following research questions were formulated to guide the study,

1. What are the supervisors' perceptions of the importance of the employability skills needed by graduates to be successful in teaching Agricultural Science in secondary schools?

Table 1. Supervisors' perception of the importance of the employability skills clusters needed by graduates to be successful in teaching agricultural science in secondary schools.

S/N	Item	X̄	S.E.	σ	S.E.	Remak
1.	Instruction	3.36	.090	.400	.080	Important
2.	Supervised agricultural experience	3.03	.091	.584	.118	Important
3.	School and community relations	3.21	.070	.490	.092	Important
4.	Professional growth and personal qualities	3.31	.093	.428	.086	Important
5.	Computer Skills	2.90	.121	.712	.144	Important

X̄ = Mean (1.00-1.49=Not Important; 1.50-2.49=fairly important; 2.50-3.49=important and 3.50-4.00=Very Important). S.E. = standard error of the mean; σ = variance; S.E.= standard error of the variance.

2. What are the supervisors' perceptions of the graduates' level of competence at performing the employability skills needed for teaching Agricultural Science in secondary schools?

METHODOLOGY

The design of this study was a survey research design. The area for this study was Bauchi and Gombe States. Bauchi and Gombe States are located in the North-east sub-region of Nigeria. The population for this study includes all the 159 supervisors of Agriculture Education graduates that are currently teaching Agricultural Science in secondary schools of Bauchi and Gombe states Nigeria. Purposive sampling technique was used to select 50 supervisors, which is 31% of the population. The instrument for data collection was a structured questionnaire adapted from Roberts et al. (2006), Robinson and Garton (2007) and Arensdorf (2009). In the questionnaire, the trainers ranked the items listed as: (1) - Not important, (2) – Fairly important, (3) –Important, and (4) – Very Important. To determine the level of teachers' competence, the trainers were asked to rate the items as: (1) – Not competent, (2) – Fairly competent, (3) –Competent, and (4) – Very Competent. Face and content validity was established for this study by three (3) experts from Department of Agric Education, College of Agricultural Sciences, University of Agriculture, Makurdi-Nigeria, Agric Education unit, department of Vocational and Technical Education, Ahmadu Bello University, Zaria-Nigeria and Degree section of Agric Education Department, School of Vocational Education, Federal College of Education (Technical) Gombe-Nigeria to examine and criticize for appropriate language, clarity and typographical errors. After suggestions were considered from the panel of experts, statements in the instruments were modified. The instrument was pilot tested in schools not selected in the sample but have the same characteristics with the selected schools in another state. The reliability coefficient of each item and cluster was determined using the correlation coefficient while the overall reliability coefficient was determined using the Cronbach's Alpha model of item analysis in the statistic section of MINITAB statistical package version 15.1 for windows. The overall reliability for the whole instrument shows a Cronbach's Alpha of 0.98. The data were collected using the questionnaire and analysed by Analysis of Moment Structures (AMOS) version 18. Means, standard error of the mean, variance, standard error of the variance and the P value were reported.

RESULTS

Research question one

What are the supervisors' perceptions of the importance

of the employability skills needed by graduates to be successful in teaching Agricultural Science in secondary schools?

In order to answer this research question, the means, standard error of the mean, variance, standard error of the variance and P value of the supervisors' perception of the importance of the employability skills (identified in the Literature) that are needed for teaching Agricultural Science in secondary schools were calculated and tabulated in Tables 1. From Tables 1, the supervisors have perceived that the entire five (5) employability skill constructs are important to graduates in teaching Agricultural Science in secondary schools of the study area. The construct means range from 2.90-3.36. This implies that the supervisors have perceived that all the identified employability skills needed by the graduates to be successful in teaching agricultural science in secondary schools are important to the graduates, with thirteen among them as very important. Acquiring new occupational skills and information needed to keep pace with technological advancement in vocational agriculture is the most important.

Research question two

What are the supervisors' perceptions of the graduates' level of competence at performing the employability skills needed for teaching Agricultural Science in secondary schools?

In order to answer this research question, the means, standard error of the mean, variance, standard error of the variance and P value of the supervisors' perception of the graduates' level of competence at performing the employability skills (identified in the Literature) that are needed for teaching Agricultural Science in secondary schools were calculated and tabulated in Table 2. From Table 2, the supervisors' have perceived that all the five (5) employability skill constructs are important in teaching Agricultural Science in secondary schools of the study area, with construct means ranging from 2.79-3.18. This implies that the supervisors have perceived that graduates are competent in performing all the employability skills needed by graduates to be successful in teaching Agricultural Science in secondary schools. Despite the

Table 2. Supervisors' perception of the graduates' level of competence at performing the employability skills clusters needed for teaching agricultural science in secondary schools.

S/N	Item	X̄	S.E.	σ	S.E.	Remak
1.	Instruction	3.17	.095	.459	.090	Competent
2.	Supervised Agricultural Experience	2.89	.107	.571	.116	Competent
3.	School and Community Relations	3.08	.093	.430	.087	Competent
4.	Professional Growth and Personal Qualities	3.18	.096	.455	.092	Competent
5.	Computer Skills	2.79	.125	.775	.156	Competent

X̄ = Mean (1.00-1.49=Not Competent; 1.50-2.49=Fairly Competent; 2.50-3.49=Competent and 3.50-4.00=Very Competent). S.E. = standard error of the mean; σ = variance   S.E. = standard error of the variance.

fact that graduates considered "planning the content of a lesson" as the most important employability skill, they were not considered by the supervisors to be highly competent in doing that. Also the supervisors rated "Acquiring new occupational skills and information needed to keep pace with technological advancement in vocational agriculture" as the most important employ-ability skill needed by Agricultural Science teachers, but they did not consider the graduates to be highly competent in this skill. They considered them to be most competent in "planning effectively for instruction".

Summary of the findings

The following are the major findings of this study:

1. The supervisors have accepted that the employability skills identified as needed by the graduates to be successful in teaching Agricultural Science in secondary schools are important to the graduates.
2. The supervisors have accepted that the graduates are competent in performing the employability skills identified as needed by graduates to be successful in teaching Agricultural Science in secondary schools.

DISCUSSION

The result also revealed that the supervisors have perceived that the employability skills needed by the graduates to be successful in teaching Agricultural Science in secondary schools are important to the graduates. This finding is consistent with the report of Carnevale et al. (1990) that supervisors have long been concerned about the development of workforce skills. In the late 1980s, this concern created a push for intense reflection on the state of workforce development. The American Society for Training and Development (ASTD), a non-profit professional association, undertook an intensive study to determine what employers deemed as essential skills in America's workforce. Supported by a grant from the Department of Labor, researchers con-ducted on-site and telephone interviews and consulted

experts to find out what skills were needed of employees. Sixteen skills within seven groups were identified as being important to the success of employees. Graham (2001) also found that supervisors rated listening as the most important communication skill for graduates to possess. Robinson (2008) also conducted a study to identify the employability skills deemed most important to Agriculture University graduates by their supervisors using a survey; the results showed that supervisors felt that working well with fellow employees, motivation, organization, and team management were most important. All 67 skills evaluated by the supervisors were perceived to be "moderately important" to workplace success. Casner-Lotto and Barrington (2006) reported that over 400 employers across the United States were studied in an effort to understand what skills employees needed to be successful in the "global economic playing field". Skills in basic knowledge were found to be an integral component of workplace success. These skills, writing in English, spoken English language, reading comprehension, mathematics, and science were ranked as "very important" to four-year college graduates for job success. Applied skills were defined as those employability skills needed for successful entry-level job performance.

The result also revealed that the supervisors have perceived that graduates are competent in performing the employability skills needed by graduates to be successful in teaching Agricultural Science in secondary schools. This finding is consistent with Graham (2001) who found that supervisors recognized that graduates are most competent at maintaining a positive attitude while on the job, while they are least competent at identifying political implications of the decision to be made. An implication could be that entry-level graduates simply cannot think about all the ramifications of their decisions at work due to their lack of work experience. Robinson (2006) also reported that graduates are competent at performing motivation according to supervisors. Employers sought tangible skills such as taking initiative, listening, problem-solving, and being flexible and open to change. However, leadership educators emphasized team building, know-ledge of self, and understanding leadership styles in their courses. Agreement was reached on the importance and

teaching of decision-making skills and accountability for one's actions. These findings further reveal that there are differences between skills and behaviors being taught and learned in higher education classrooms and those skills and behaviors being sought by potential employers. Robinson (2008) reported the competence levels of these skills were also studied. Newly hired graduates saw themselves most competent at working independently, while their supervisors perceived motivation to be the newly hired graduates' strongest skill. Both the graduates and their supervisors perceived "identifying political implications of the decision to be made" as being the weakest skill that new hires possess.

Conclusion

The supervisors have perceived all items to be important to employability success in the teaching profession; they also felt that having experience and competence in the employability skills such as instruction, supervised agricultural experience, computer skills were influencing factor for success of the agricultural education graduates employees.

Recommendations

Based on the findings of the study it is recommended that:

1. All the employability skills should be retained or included in the curriculum.
2. A competency-based approach to university education is necessary and it should be feasible to meet the workplace demands.
3. Supervisors should be invited as guest speakers, facilitators, and consultants in universities seminar, workshops and conferences to assist students in connecting the course content to the real-world.

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