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TECHNIQUES FOR MITIGATING DIFFICULTIES ENCOUNTERED BY STUDENTS OF AGRICULTURAL EDUCATION IN PROJECT WRITING IN COLLEGES OF EDUCATION IN SOUTH-EAST, NIGERIA

Prof. Anthony Nweke Eze
Department of Technology and Vocational Education
Nnamdi Azikiwe University, Awka, Anambra State.
anthonyeze62@yahoo.com

ABSTRACT

The purpose of this study was to identify the techniques for mitigating difficulties encountered by students in the application of competencies of research learnt in courses in project writing in colleges of education in South - East Nigeria. Three research questions and three null hypotheses guided the study. Mixed method research design was adopted for the study. The study was carried out in South-East Nigeria. South-East Nigeria is made up of five states namely Abia, Anambra, Ebonyi, Enugu, and Imo. The zone has seven Colleges of Education that offer agricultural education. The population for the study is 585. This comprised 85 lecturers in all the colleges of education that offer agricultural education who are supervisors of projects and 500 NCE students currently writing their projects in agricultural education. Multi-staged sampling technique was employed in choosing the respondents. First, simple random sampling technique by balloting was used to draw a sample of five out of the seven colleges of education in the zones in Nigeria. Secondly, simple random sampling technique by balloting was used to select 60 students each in all the colleges of education selected for the study. Eventually a total of three hundred (300) and eighty-five (85) lecturers were selected for the study. The instruments for data collection was a type called NCE Students Project Mitigation Questionnaire (NSPMQ) which contained 30 questionnaire items with four options developed from the three major research questions. The instrument was validated by five experts, two from the Department of Agricultural Education, Faculty of Vocational and Technical Education University of Nigeria Nsukka and one from the Department of Science Education, Imo State University Owerri. Kuder-Richardson formula was used to determine the reliability of NSPMQ. It was obtained by administering a single set of questionnaire to 30 NCE students in the Department of Agricultural Education, Federal College of Education (Technical) Asaba Delta State Nigeria. The data collected for the study were analyzed using frequency counts, percentages, weighted and mean to answer the three research questions. The opinion of the selected respondents in the FGD was analyzed by clustering and summarizing. Hypotheses 1-3 were tested at 0.5 level of significance using T-test. Findings indicated that lecturers agreed mostly on the techniques involved in research writing by students of agricultural education in college of education in South East, Nigeria. These techniques include review all the scientific literature whether pure or applied science associated with the study, outline all the

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salient points considered relevant to the study, use the salient points outlined to formulate hypothesis, Use observational statistical survey to solidify and review the working hypothesis where needful and applicable, Evaluate the working hypothesis, Use the literature relevant to the adopted methodology and technique based on the study among others. It was among others recommended that it is good that adequate time be allocated to educational research to enable the students learn adequately the research format and what they entailed. Such should also form part of the examination questions.

Keywords: Technique; Difficulties; Students; Agriculture; Education, and Project Writing.

Introduction

Education is a social good which not only impact positively on the individual that acquired it but the larger society as well. For education to fulfill this societal objective, it must be dynamic in nature so as to breakeven with the changes in the society. In the light of the above expressions, education is qualified and quantified for its incessant yearning and search for knowledge, skills and information which change and innovation connotes. It is premised on this development that research writing is seen as one of the prerequisite to engage in and accomplished before certification in tertiary education. This is to ensure that apart from acquisition of relevant knowledge, skills and information during educational training programmes, the beneficiary should be able to contribute her own quota in improving education through research writing. In which case, the researcher/the student is expected to choose any educational problem which could be economical, political, socio-cultural etc. and carry out a study on that with the intention of adding to existing knowledge and improving the lots of the society positively.

Research writing is referred to as project writing. A project is a teaching method that involves assisting students to find solution to problems of teaching and learning by assisting them to carry out empirical studies in an identified area. Project is carried out by students as one of the requirements for graduation. According to Federal Republic of Nigeria, (2013) all students registered for NCE programme are expected to complete an original research project before a certificate can be awarded. Because of this, in the final year students of agricultural education are assigned to supervisors who will help them to choose topics of interest which they want to research on as their project. Research is the process of an academic investigation which involves the collection, collation, synthesis and analysis of relevant data toward the solution to well defined problem. Walden (2022) and Ogolo (2012). When they posited that research writing must be sequential starting from chapter one to five. In this study, research is the process of obtaining solution to the problems of agricultural education through a systematic collection, collation, analysis, and interpretation of data by NCE students in the colleges of education.

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The result of research at NCE level is usually reported in a project. These projects are usually supervised by qualified lecturers in agricultural education program.

Observation by the researcher shows that many students normally forward their project so many times to their supervisors before and it will be accepted. This is happening despite all the knowledge and skills they have gained in the programme on how to carry out project writing. Example, to enhance the acquisition of the knowledge and skills of project writing by the students the National Commission for Colleges of Education in 2012 through its minimum standard included courses like Research Method in Agricultural Education (AGE 221), Introduction to Research Methods (EDU 214) and Measurement and Evaluation (EDU 222) as part of the requirement of graduation so that the students can before writing their projects acquire research competencies for effective project writing in their final year.

Allison Academy (2022) gave credence to the above view points and asserted that education is an integral part of modern society. The author perceived education as an investment that enlightens the recipients about basic societal problems which directly affect the quality of life and they could not be solved without ambitious, creative and intelligent people who are ready to change the world with their knowledge. This set of educated people should be knowledgeable in research writing so as to ascertain answers to challenges facing humanity for a better living. Trending on the same lane, Fitzpatrick (2021) posited that higher education as a social good contributes in research as a way of building educated workforce capable of not only tackling the societal problems at present but also into the future.

Agriculture which involves farming in terms of cultivation of crops for growing crops, animal husbandry, poultry, fishery, snarling etc. either for subsistence or commercial purposes. Farming in every aspect of it has experienced radical change and innovation that facilitates increased production at a much reduced stressed conditions. This is made possible through modern farming techniques, farming methods and harvesting techniques coupled with new storage formats among others. As technology is advancing in other facets of life, agriculture is not left out. Stemming from this view point, research writing in agriculture becomes very imperative. In consonance with the above ideology, National Geographic Society (2022) espoused that agriculture is the art and science of farming of the soil, budding of crops and breeding of farm animals.

Agricultural research writing is therefore a type of study that is aimed at improving every aspect of farming for better yields. In corroboration with the above opinion, Leobenstein & Thottappilly (2022) lucidly put that agricultural research involves any research activity or programme which is based on identifying new ways of improving productivity and quality of crops by their genetic improvement, better plant protection, irrigation, storage methods, farm mechanization, efficient marketing and a better management of resources. In carrying

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out this research in agricultural a lot of problems usually mar the process making the result unreliable and invalid in some instances.

The supervisors ensure that final year NCE agricultural education students write their project using the correct format and appropriate design but many students are finding it difficult to do that resulting in complains of high handedness by supervisor. Chaney (2017): Ogolo (2012) and Susannwry (2022) noted that NCE students and young lecturers in the universities experience difficulties in carrying out research activities. These difficulties has made some NCE students to abandon their studies, complete their research work late, pay extra years school fees, score poor grades from completed works, pay extra cost for re-writing works, spend extra time in re-writing their research report and give extra stress to the supervisors. To avoid all these, there is need for a comprehensive research to find out the strategies of mitigating the difficulties encountered by students in project writing in agriculture in colleges of education in South-East Nigeria. At present, most of the supervisors are tired of reading works submitted by students as projects because many of the students seem not to understand what exactly they are doing or what they want to do because they do not have research competencies.

For NCE students to demonstrate effective application of theory of research, they have to show high competencies in generating researchable topics, providing background information to their study, identification of problem, review of related literature, selection of appropriate methodology, analysis and interpretation of data and writing summary and conclusion of their work. At present they it appears that these skills are lacking and if nothing is done to remedy it, the problem will continue to linger hence the study.

Problem statement

It is a known fact that these students are adult learners who are mostly married men and women. In even when the research writing was taught as a course of study, many were busy with family issues. They had divided attention and some others are gainfully employed. They appear to be merging their studies with a number of family issues. There are others who were present but failed to comprehend the lecture or find it very difficult to understand. Yet many others participated fully in the lecture and understood the entire process. Surprisingly, all these students passed or rather were successful in the course 'educational research' which served as preparatory lecture for the research writing. Be that as it may, so many students fall short of writing this project with ease. Some do not even know the process of project writing, the techniques involved and the techniques for mitigating imminent challenges encountered in project writing by students of agricultural education in colleges of education in South East, Nigeria. This has resulted to a lot of students fumbling during project writing. Many students spend more than the expected period

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in the programme, abandon their studies, complete their research work late, pay extra years school fees, score poor grades from completed works, pay extra cost for re-writing works, spend extra time in re-writing and give extra stress to the supervisors and college authorities.

Also the earlier researcher observed that some people who have graduated from NCE programmes in agricultural education find in difficult to apply the competencies of research in writing publishable paper in local and international journal after all their training. One wonders what could have gone wrong? Could it that their first research writing was done by machinery or that they easily forget? Was it that the teaching of the course was not competently handled? Do they actually grasp the process, the techniques and ways to scale through the huddles? All these are the issues bothering the researcher hence constitute the elements of the research problems. Because of this, there is the need to identify the techniques for mitigating difficulties encountered by students in the application of competencies of research learnt in courses in project writing in colleges of education in South - East Nigeria. This could make the students to graduate on record time and be able to publish papers in reputable journals.

Research Questions

The following research questions will guide the study:

1. What are the processes involved in research writing by students of agricultural education in college of education in South East Nigeria?
2. What are the techniques in research writing by students of agricultural education in college of college of education in South East Nigeria?
3. What are the techniques for militating difficulties encountered by students of agricultural education in research writing in college of education in South East, Nigeria?

Research Hypotheses

The following null hypothesis will be tested at 0.05 level of significance in the study.

1. HO_1. There is no significant difference between the mean scores of the lecturers and students of agricultural education on the process involved in research writing by students of agricultural education in college of education in South East Nigeria.
2. HO_2. There is no significant difference between the mean scores of the lecturers and students of agricultural education on the techniques involved in research writing by students of agricultural education in college of college of education in South East Nigeria.
3. HO_3. There is no significant difference between the mean scores of the lecturers and students of agricultural education on the techniques for militating difficulties encountered by students of agricultural education in research

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writing in college of education in South East, Nigeria.

Research Method

Mixed method research design was adopted for the study. Mixed method design is a form of design which allows the researcher to collect quantitative and qualitative data from a group of people considered to be a representative of the entire group. The author further stated that questionnaire, interview and personal suggestion could be used to collect data in the design. This design was considered appropriate for this study because questionnaire was used to obtain data from NCE students and Supervisors of agricultural education projects at NCE level while the researcher engaged the students and supervisors in interview and focus group discussion and also ask them to put their suggestion in a piece of paper for further analysis. The study was carried out in South-East Nigeria. South-East Nigeria is made up of five states namely Abia, Anambra, Ebonyi, Enugu, and Imo. The zone has seven Colleges of Education that offer agricultural education. The rationale for the choice of the zone is that there are many colleges of education that offer agricultural education with more than 500 students who graduate from the programme annually. Results from personal interactions with some of the graduated students shows that they suffered a lot before they completed their projects and the present final year students are presently encountering much difficulty in writing their project.

The population for the study is 585. This comprised 85 lecturers in all the colleges of education that offer agricultural education who are supervisors of projects and 500 NCE students currently writing their projects in agricultural education. Multi-staged sampling technique was employed in choosing the respondents. First, simple random sampling technique by balloting was used to draw a sample of five out of the seven colleges of education in the zones in Nigeria. Secondly, simple random sampling technique by balloting was used to select 60 students each in all the colleges of education selected for the study. Eventually a total of three hundred (300) and eighty-five (85) lecturers were selected for the study. The students that were used for the interview were selected from the colleges of education outside the study area. The separation is to prevent diffusion of information during focused group discussion.

The instruments for data collection was a type called NCE Students Project Mitigation Questionnaire (NSPMQ) which contained 30 questionnaire items with four options developed from the three major research questions. The instrument has three sections based on the three objectives and three research questions. The first section centered on the process, the second section focused on the techniques/methods while the third section hinged on the techniques to mitigate challenges of research writing by agricultural students in college of education in South East Nigeria. The instrument was validated by five experts, two from the Department of Agricultural Education, Faculty of

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Vocational and Technical Education University of Nigeria Nsukka and one from the Department of Science Education, Imo State University Owerri. The experts were requested to identify ambiguous statements and make suggestions that were utilized to produce the final version of the NSPMQ. Kuder-Richardson formula was used to determine the reliability of NSPMQ. It was obtained by administering a single set of questionnaire to 30 NCE students in the Department of Agricultural Education, Federal College of Education (Technical) Asaba Delta State Nigeria.

The data collected for the study were analyzed using frequency counts, percentages, weighted and mean to answer the three research questions. The opinion of the selected respondents in the FGD was analyzed by clustering and summarizing. Hypotheses 1-3 were tested at 0.5 level of significance using T-test. In using the Weighted Mean, four response options. The instrument used four point scale of Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD). This is coded and weighted as SA = 4, A = 3, D = 2 and SD = 1. The criterion mean is there 4 + 3 + 2 + 1 = 10/4 = 2.5. Using this technique, it implies that any mean score that is either 2.5 or above is accepted as agreed but if it is below 2.5, the score is taken as Disagreed. Out of three hundred and eighty five (368) questionnaire copies distributed, three hundred and sixty-eight were retrieved. From this figure, two hundred and eighty nine copies of questionnaire are from the students while the remaining seventy nine came from the lecturers' side. The collected data were thus used for data analysis.

Research Question 1. What are the processes involved in research writing by students of agricultural education in college of education in South East Nigeria?

Table 1; Mean and percentage scores of the respondents on the processes involved in research writing by students of agricultural education in college of education in South East Nigeria.

S/N	State the level of the your agreement on the following research process::	N=79 Frequency counts & percentages for Lecturers				Mean	RMK	N=289 Frequency counts & percentages for Students				Mean	RMK
		SA	A	D	SD			SA	A	D	SD		
1.	Background of the study involves description of the main theme.	23 29%	28 35%	19 24%	9 11%	2.8	A	53 18%	62 21%	75 26%	99 34%	2.2	D
2.	Background of the study involves past and present issues about the theme	19 24%	23 29%	18 23%	19 24%	2.5	A	81 28%	98 34%	56 19%	54 19%	2.7	A
3.	Background of the study involves importance of the intending theme	16 20%	20 25%	26 33%	17 22%	2.4	D	53 19%	39 13%	105 36%	92 32%	2.2	D
4.	Choice of research topic involves critical insight into the existing societal	15 18%	21 27%	22 28%	21 27%	2.4	D	66 23%	41 14%	100 35%	82 28%	2.3	D

	problem												
5.	Research questions are derived from the statement of problem.	19 24%	20 25%	29 37%	11 14%	2.6	A	109 38%	89 31%	50 17%	41 14%	2.9	A
6.	The objective of the study is stated in both general terms and specific terms.	22 28%	15 19%	25 32%	17 22%	2.5	A	89 31%	75 26%	68 24%	57 20%	2.7	A
7.	The objective of the study is also referred to as the purpose of the study.	11 14%	19 24%	22 28%	27 34%	2.2	D	55 19%	45 16%	95 33%	94 33%	2.2	D
8.	Hypothesis must test the association between two variables.	20 25%	21 27%	18 23%	20 25%	2.5	A	88 30%	80 28%	69 24%	52 18%	2.7	A
9.	Every concept related to the research topic is discussed under literature review.	14 18%	19 24%	26 33%	20 25%	2.3	D	59 20%	47 16%	99 34%	84 29%	2.3	D
10.	Literature review is discussed in subunits.	11 14%	21 27%	23 29%	24 30%	2.2	D	49 17%	63 22%	89 31%	88 30%	2.3	D
	Cluster Mean					2.44		2.43					

Table 1 shows that items with serial numbers 1, 2, 5, 6, and 8 on the lecturers side have their mean scores above the criterion mean of 2.5 thus agreed that the following are processes involved in research writing by students of agricultural education in college of education in South East Nigeria; Background of the study involves description of the main theme, Background of the study involves past and present issues about the theme, Research questions are derived from the statement of problem, The objective of the study is stated in both general terms and specific terms, Hypothesis must test the association between two variables, Hypothesis must test the association between two variables. However, none of the items listed above scored up to 50% bench mark insinuating Disagreed when percentage score is put to use. Items with serial numbers 3, 4, 7, 9 and 10 have their mean score below the criterion mean of 2.5 which means that the respondents disagreed on the processes involved in research writing by students of agricultural education in college of education in South East, Nigeria. Their percentage scores is the affirmation of the disagreement as none of the percentage scores meet up with the bench mark of 50%. Looking at the students' corner, items with serial numbers 2, 5, 6, and 8 have their mean scores above the criterion mean of 2.5 indicating that the respondents agreed on the process of research writing by students of agricultural education in college of education in South East Nigeria. Just like their lecturers' counterparts, all the items with serial numbers 2. 5, 6, and 8 fall short of the bench mark of 50% signaling disagreement on that note. Items with serial numbers 1, 3, 4, 7, 9 and 10 have their mean scores below the criterion mean of 2.5 which is an indication that the students disagreed on the following process involved in research writing by students of agricultural education students in college of education in South East, Nigeria. The two categories of respondents however differed on item with serial number 1, while the

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lectures agreed on the process of research writing that background of the study involves description of the main theme, the students disagreed. The grand mean stood at 2.44 and 2.43 for lecturers and students respectively.

Research question 2: What are the techniques in project writing by students of agricultural education in college of college of education in South East Nigeria?

Table 2: Mean and percentage scores of the lecturers and students on the techniques in research writing by students of agricultural education in college of education in South East, Nigeria.

S/N	State the level of the your agreement on the following research techniques::	N=79 **Frequency counts & percentages for** Lecture SA A D SD	Mean	Remark	N=289 **Frequency counts & percentages for** Student SA A D SD	Mean	Remark
1.	Review all the scientific literature whether pure or applied science associated with the study	36 31 8 4 46%39%10%%	3.2	A	89 98 56 46 31%34%19%1%	2.7	A
2.	Outline all the salient points considered relevant to the study	41 23 12 3 59%29%15%8%	3.2	A	100 89 66 34 35%31%23%12%	2.8	A
3.	Use the salient points outlined to formulate hypothesis	52 27 -- -- 66%34%-- --	3.6	A	99 78 90 22 34%27%31%8%	2.8	A
4.	Use observational statistical survey to solidify and review the working hypothesis where needful and applicable	29 30 11 9 37%38%14%11%	3.0	A	96 85 77 31 33%29%27%11%	2.8	A
5.	Evaluate the working hypothesis	32 25 9 13 41%32%11%4%	2.9	A	88 99 56 46 30%34%19%16%	2.7	A
6.	Use the literature relevant to the adopted methodology and technique based on the study	35 23 8 13 44%29%10%16%	3.0	A	105 85 56 43 36%29%19%15%	2.8	A
7.	Deduce the research question and objectives from the elements that prompted the research problem.	39 35 5 -- 49%44%6% --	3.4	A	89 91 83 26 31%31%29%9%	2.8	A
8.	Hypothesis could also be developed from the objectives of the study	56 23 -- -- 71% 29% -- --	3.4	A	97 86 55 51 34%30%19%18%	2.7	A
9.	Use unambiguous language and questions for data collection	59 15 2 3 75% 18% 3% 4%	3.6	A	128 89 59 31 44%31%20%11%	3.2	A
10.	Classify and analyze the result	38 35 6 -- 48%44%8% --	3.4	A	90 95 85 19 31%33%29%7%	2.8	A
	Cluster Mean	3.2			2.5		

Table 2 shows the scores of the lecturers and students on items with serial numbers 1-10 above the criterion mean of 2.5 which is an indication that in college of education both respondents agreed on the techniques in research writing by students of agricultural education in South East, Nigeria. These techniques include review all the scientific literature whether pure or applied science associated with the study, outline all the salient points considered relevant to the study, use the salient points outlined to formulate hypothesis, Use observational statistical survey to solidify and review the working hypothesis where needful and applicable, Evaluate the working hypothesis, Use the literature relevant to the adopted methodology and technique based on the study among others. The means scores of the respondents stood between 2.5 -3.6. The percentage scores did not show total agreement as items with serial numbers 1, 4, 5, 6, 7, and 10 score below the 50% bench marked and therefore disagreed on the concept while items 2, 3, 8 and 9 score above 50% bench mark thus agreed on the concept for lecturers. On the reverse side, items with serial numbers 1-10 on the students' side disagreed on the concept with all their percentage scores below 50% bench mark. The cluster mean yielded 3.2 and 2.5 for both lectures and students respectively.

Research Question 3: What are the techniques for mitigating difficulties encountered by students of agricultural education in college of education in South East, Nigeria?

Table 3: Mean and percentage scores of the lectures and students on the techniques for mitigating difficulties encountered by students of agricultural education in college of education in South East, Nigeria.

S/N	State the level of your agreement on the following research techniques for mitigating research writing obstacles.	N=79 Frequency counts & percentages for Lecture SA A D SD	Mean	Remark	N=289 Frequency counts & percentages for Student SA A D SD	Mean	Remark
1.	Choose a researchable topic of your interest	23 30 19 7 29%38%24%9%	2.8	A	60 98 55 76 21%34%19%26%	2.5	A
2.	Consider your ability and resources	19 23 20 17 24%29%25%22%	2.5	A	62 96 59 72 21%33%20%25%	2.5	A
3.	Locate resounding theoretical framework	23 22 21 5 29%28%27%6%	2.5	A	97 63 65 64 34%22%22%22%	2.6	A
4.	Let your study dictate the design	28 18 22 11 35%23%28%14%	2.7	A	105 53 72 59 36%18%25%20%	2.7	A
5.	Make due consultations where need be	26 16 23 14 33%20%29%18%	2.6	A	89 69 73 58 31%24%25%20%	2.6	A
6.	Survey enough literature linked to your study	24 17 25 13 30%22%32%16%	2.6	A	75 80 69 65 30%28%24%22%	2.5	A

7.	Identify research gap before choosing a topic	29 37%	25 32%	15 18%	10 12%	2.9	A	65 22%	65 22%	79 27%	80 28%	2.4	D
8.	Ensure that no one question in your instrument yield two answers.	26 33%	23 29%	23 29%	7 9%	2.8	A	150 52%	69 24%	28 10%	48 15%	3.1	A
9.	Always try out questions on your instrument with a small sample.	28 35%	19 24%	9 11%	23 29%	2.6	A	58 20%	89 31%	73 25%	69 24%	2.5	A
10.	The topic should be doable	22 28%	26 33%	21 27%	10 12%	2.7	A	80 28%	90 31%	30 10%	89 31%	2.5	A
	Cluster Mean					2.7						2.6	

Table 3 shows that the lecturers agreed on the techniques for mitigating difficulties encountered by students of agricultural education in college of education in South East, Nigeria with all the mean scores from items 1-10 scoring above the criterion mean of 2.5. They agreed on the following techniques for mitigating difficulties encountered in project writing; choose a researchable topic of your interest, consider your ability and resources, locate resounding theoretical framework, let your study dictate the design, make due consultations where need be, survey enough literature linked to your study, identify research gap before choosing a topic among others. However, none of the items scored up to 50% benchmark looking at the percentage scores. The grand mean yielded 2.7. On the other hand, most students agreed on the techniques for mitigating difficulties encountered by students of agricultural education in college of education in South East with the items numbers at 1-6 and 8-10 having their mean scores above the criterion mean of 2.5. They however disagreed on item number 7 with the mean score of 2.4 which is below the criterion mean of 2.5. They disagreed that identifying research gap before choosing a topic is one of the techniques for mitigating difficulties encountered by students of agricultural education in college of education in South East, Nigeria. Looking at the percentage scores, items 1-7 and 9-10 scored below 50% which is an indication of disagreement on that level. Item with serial number 8 is the only that scored above 50% which is the benchmark for agreed. The cluster mean stood at 2.6.

HO_1. There is no significant difference between the mean scores of the lecturers and students of agricultural education on the process involved in research writing by students of agricultural education in college of education in South East Nigeria.

Table 4: t-test statistics of difference between the mean scores of the lecturers and students responses on the process of research writing by students of agricultural education in college of education in South East, Nigeria.

Variables	N	Mean	SD	DF	t-cal	t-crt	Level of sig.	Remark
Lecturers	79	2.44	0.5					
				367	0.34	1.96	0.05	Not sig.
Students	289	2.43	0.5					

Table 4 shows the t-test analysis of the mean scores comparison between the responses of the respondents on the process of research writing by students of agricultural education in college of education in South East, Nigeria. The mean score yielded 2.44 and 2.43 for both lecturers and students with each having the SD of 0.5, degree of freedom equals 367, t-calculated amounted to 0.34 as against t-critical of 1.96 at 0.05 level of significant. Since the t-calculated is less than the t-critical, the hypothesis testing is thus not rejected but declared that there is no significant difference between the mean scores of the lecturers and students on the process of research writing by students of agricultural education in college of education in South East, Nigeria.

HO_2. There is no significant difference between the mean scores of the lecturers and students of agricultural education on the techniques involved in research writing by students of agricultural education in college of college of education in South East Nigeria.

Table 5: t-test analysis of difference between the mean scores of the respondents on the techniques involved in research writing by students of agricultural education in college of education in South East, Nigeria.

Variables	N	Mean	SD	D/f	t-cal	t-crit	Level Of sig,	Decision
Lecturers	79	3.2	0.28					
				367	1.98	1.96	0.05	Sig.
Students	289	2.5	0,86					

Table 5 shows the mean scores of the two variables as 3.2 and 2.5 for both lecturers and students accordingly with their SD of 0.28 and 0.86. The degree of freedom is 367 with the t-calculated of 1.98 as against t-critical of 1.96 at 0.05 level of significant upon which the hypothesis was tested. Since the t-calculated is greater than t-critical, the hypothesis testing is thus rejected but declared that there is significant difference

between the mean scores of the respondents on the techniques involved in research writing by students of agricultural education in college of education in South East, Nigeria.

HO_3. There is no significant difference between the mean scores of the lecturers and students of agricultural education on the techniques for mitigating difficulties encountered by students of agricultural education in research writing in college of education in South East, Nigeria.

Table 6: t-test analysis of difference between the mean scores of the respondents on the techniques for mitigating difficulties encountered by students of agricultural education in research writing in college of education in South East, Nigeria.

Variables	N	Mean	SD	D/f	t-cal	t-crit	Level Of sig,	Decision
Lecturers	79	2.7	0.62					
				367	0.83	1.96	0.05	Not sig.
Students	289	2.6	0.6					

Table 6 shows the t-test statistics on the mean scores of the respondents on the techniques for mitigating difficulties encountered by students of agricultural education in research writing in college of education in South East, Nigeria.. The mean scores had 2.7 with SD of 0.62 for lecturers and 2.6 mean score with SD of 0.6 for students. Degree of freedom equals 367, t-calculated gave rise to 0.83 against t-critical of 1.96 at 0.05 level of significant thus the hypothesis testing was not rejected but upheld that there is no significant between the mean scores of the respondents on the techniques for mitigating difficulties encountered by students of agricultural education in college of education in South East, Nigeria.

Discussion of Findings

The discussion of the findings would be carried out in respected of the research questions that guided the study. On the general note, the respondents showed negative response on the research question 1 on table 1. Few of the respondents showed positive responses with their mean scores above 2.5 criterion mean. The respondents agreed that the process of research writing by agricultural education students in college of education in South East, Nigeria are as follows: Background of the study involves description of the main theme, Background of the study involves past and present issues about the theme, Research questions are derived from the statement of problem, The objective of the study is stated in both general terms and specific terms, Hypothesis must test the association between two variables, Hypothesis must test the association between two variables. The respondents disagreed on the following as the process of research writing by

students of agricultural education in college of education in South East, Nigeria on the following items; Choice of research topic involves critical insight into the existing societal problem, the objective of the study is also referred to as the purpose of the study, every concept related to the research topic is discussed under literature review, Literature review is discussed in subunits. The respondents however differed on the item with serial no 1, in which case, while the lecturers agreed on the process of research writing that background of the study involves description of the main theme, the students disagreed. The corresponding hypothesis which is the second finding of the study is derived from hypothesis 1 table 1 indicates that there is no significant difference between the mean scores of the respondents on the process of research writing by students of agricultural education in college of education in South East, Nigeria. Research writing is a compulsory exercise for graduating students in almost all tertiary education in Nigeria. It is taught theoretically as a course of study before the project writing. It is the systematic way of carrying out scientific study on issues that bother the society with the view to proffering lasting solution. Being a systematic undertaking, it has a lay down procedures. When this process is not adequately hided to, it could prolong the period of research writing and becomes frustrating to the students involved. These issues are not different from the views of earlier researchers in the likes of Walden (2022) & Ogolo (2012). When they posited that research writing must be sequential starting from the choice of topic upon which every other aspect of the work is based. This is because it provides focus and theme to be addressed. The background of the study, the problem statement, objectives, research questions and hypothesis as well as the literature review must bear relevance to the research topic. This assist the student write the project without much hassles as the student can easily identify the thrust of the work.

The third finding of this study is derived from research question 2 table 2 shows that lecturers agreed mostly on the techniques involved in research writing by students of agricultural education in college of education in South East, Nigeria. These techniques include review all the scientific literature whether pure or applied science associated with the study, outline all the salient points considered relevant to the study, use the salient points outlined to formulate hypothesis, Use observational statistical survey to solidify and review the working hypothesis where needful and applicable, Evaluate the working hypothesis, Use the literature relevant to the adopted methodology and technique based on the study among others. The means scores of the respondents stood between 2.5 -3.6. Even as the percentage scores mostly fall short of the 50% benchmark. The corresponding hypothesis which is the fourth finding declared that there is significant difference between the mean scores of the respondents on the techniques involved in research writing by students of agricultural education in college of

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education in South East, Nigeria. These research techniques are necessary as they assist the students in tackling the huddles in research writing. When these techniques are wrongly applied in research writing, the validity and reliability of the result cannot be guaranteed. The findings may not be a good generalization of the population. This is similar to what previous researchers such as Chaney (2017 and Susanwry (2022) have identified in the past when these techniques are ignored, the research writing becomes uninteresting, unmanageable and insignificant. The result derived from the analysis is thus very subjective and bias.

The fifth finding of this study is derived from research question 3 table 3 both respondents agreed on the techniques for mitigating difficulties encountered by students of agricultural education in college of education in South East, Nigeria. Their agreement is based on the following techniques for mitigating difficulties encountered in project writing; choose a researchable topic of your interest, consider your ability and resources, locate resounding theoretical framework, let your study dictate the design, make due consultations where need be, survey enough literature linked to your study, identify research gap before choosing a topic among others. However, none of the items scored up to 50% benchmark looking at the percentage scores. The grand mean yielded 2.7. On the other hand, most students agreed on the techniques for mitigating difficulties encountered by students of agricultural education in college of education in South East with the items numbers at 1-6 and 8-10 having their mean scores above the criterion mean of 2.5. The students agreed on all the items except on item 7 has scored below 2.5 criterion mean. The students also agreed with item no 8 based on percentage scores. Difficulties encountered by the students of agricultural education in research writing is enormous and have resulted in wrong questionnaire instrument, wrong choice of design, wrong choice of topic among others leading to delayed graduations and/or eventual abandonment of the programme. This is similar to what many researchers like FGN (2013) and Walden (2022) have discovered in the past that absence of effective guidance for the students prior to the time of research writing, lack of opportunity to explore the process of selecting research titles, research problems among others during lectures culminates to these hindering factors therefore advocated for experienced consultant to guide the students of agricultural education on the techniques for mitigating difficulties encountered by students of agricultural education in college of education in South, Nigeria.

Conclusion

Based on the findings, it is concluded that both the lecturers and students disagreed on the process of research writing, but agreed on the techniques used in research writing as well as the techniques for mitigating difficulties encountered by students of agricultural education by students of agricultural education in college of education in South East, Nigeria. The

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hypothesis testing revealed that hypotheses 1 & 3 indicated that there is no significant difference between the mean scores of the respondents on the process of research writing and the techniques for mitigating difficulties encountered by students of agricultural education in college of education in South. Hypothesis 2 showed that there is significant difference between the mean scores of the respondents on the techniques in research writing by students of agricultural education in college of education in South East, Nigeria.

Recommendation

Based on the findings, the following recommendations were made;

1. The first recommendation is that since the many students do not have adequate knowledge on the process of research writing, it is good that adequate time be allocated to educational research to enable the students learn adequately the research format and what they entailed. Such should also form part of the examination questions.
2. The second recommendation is that the teaching of techniques in research writing should be intensified and sustained to make research writing pleasurable.
3. The third recommendation is that students should be taught and examined on the techniques for mitigating difficulties encountered by students of agricultural education so as to enable them internalize the concept of research writing thus minimize the delay in finishing up research writing.

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