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Enhancing Teaching and Learning of Home Economics through Practical Skill Development and Nutrition Education

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Abstract
The study assessed the role of practical skill development and nutrition education in enhancing teaching and learning outcomes in Home Economics. It was guided by two research questions and two hypotheses. The descriptive survey research design was adopted for the study. The population of the study consist of 40 Home Economics students. Census sampling technique was adopted in selecting 40 respondents for the study. Home Economics through Practical Skill Development and Nutrition Questionnaire (HEPSDNQ) was the instrument used for gathering data. Mean, standard deviation and simple regression analysis were used for data analysis. The hypotheses were tested at .05 level of significance. The results indicated that practical skills development role and nutritional education role had significant influence on teaching and learning of Home Economics in University of Calabar. The study recommended, among others, that school authorities should encourage and motivate Home Economics educators to develop the identified food practical skills to improve their performances.
Keywords: teaching, learning, home economics, practical skill development, nutrition education

Introduction

Home Economics occupies a vital position in the Nigerian educational system because it equips learners with relevant life skills that support personal development and career

success. Unlike many other disciplines, Home Economics combines both theoretical and practical knowledge, enabling students to succeed independently in their chosen career paths. The knowledge and skills gained through the subject remain useful throughout life, as they address daily living, family well-being, and entrepreneurship. Importantly, Home Economics provides students with subject matter that is not only relevant to their present lives but also continues to be applicable as they grow and adapt to societal needs.

Teaching and learning in Home Economics focus on equipping learners with practical life skills, knowledge, and attitudes necessary for personal, family, and societal well-being. The subject integrates both theory and practice, enabling students to apply classroom knowledge to real-life situations such as food preparation, nutrition, clothing, and home management. Effective teaching of Home Economics emphasizes learner-centred and activity-based approaches, where students actively participate in hands-on experiences that enhance skill acquisition and retention. According to Eze (2021), practical engagement in Home Economics significantly improves students' competence and readiness for self-reliance. Similarly, Bello (2022) noted that integrating nutrition education into Home Economics enhances learners' awareness of healthy living and promotes better lifestyle choices. Furthermore, Yusuf (2023) emphasized that the use of modern instructional strategies and adequate facilities greatly influences the effectiveness of teaching and learning in Home Economics. Therefore, improving instructional methods, providing adequate resources, and strengthening practical components are essential for achieving meaningful learning outcomes in Home Economics education.

It is obvious that home economics is a subject that serves as a foundation for skills development among students; proper attention must therefore be paid to its development to encourage students to always have a keen interest in the subject. The laboratories where practical classes are held must be fully equipped and properly funded. The laboratory is seen as the focal point for a science-oriented course as Home Economics education. According to Udo (2018), the realities of school laboratories in Nigeria have been that there are either no laboratories or the few available ones are ill-equipped. This problem is also applicable to Home Economics education. Most tertiary institutions in Nigeria, particularly University of Calabar that offers Home Economics, have an acute shortage of laboratory (Anyadiegwu, 2018). There is no specific laboratory assigned for Clothing and Textiles, Food and Nutrition, Home Management, and Child Development, because of the inadequacy or lack of laboratories in some schools. Many of these institutions have problems with inadequate equipment and instructional materials. This is because, if an institution lacks a laboratory for a vocational course such as Home Economics, it becomes a major challenge to adequately equip the department (Etiubon, 2018). Even when

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equipment is provided, questions arise as to how and where such facilities can be properly installed and maintained for effective use and safety.

This fact corroborates the research carried out by Kofo (2018), which showed that the realities of the situation of inadequate infrastructure range from no science laboratories at all to one microscopic science laboratory. The author observed that what obtained was the existence of well-equipped laboratories only on paper. Other studies like Adebisi et al. (2017), Clifford and Nwanya (2022) confirmed this shortage of laboratories in Nigerian secondary schools. Home Economics encourages ventilation for conducive practical in schools. Lacking in such affects the effective teaching and learning of Home Economics in Nigeria.

Consequently, in order to ensure better and improved learning, the need for provision of educational infrastructure like classroom blocks, laboratories, among others in teaching and learning of a science-oriented course like Home Economics cannot be over-emphasized (Etiubon & Udoh, 2020). Undoubtedly, these facilities make teaching and learning easy, lively, and productive. They also provide direct experience and content between the learners and the materials, ensuring a better grasp of the concept that is learned. Such a medium used for teaching/learning creates a lasting impression. Education infrastructure is an inevitable instrument in the educational process, if the nation must advance scientifically and technologically to meet up with the challenges of the modern world. According to Alaba and Addo (2017), laboratories are workhouses for scientific practices, for the search of new ideas and information. Clifford and Nwanya (2022) noted that whatever resources are available are not often utilized due to poor planning and maintenance. In Home Economics subject, there should be adequate supply of equipment, instructional materials, and professional teachers, if the quality of education is to be maintained in the country.

Udo (2018) conducted a study on techniques for improving practical skills development in Home Economics towards sustainable development in Nigeria. To start with, the study defined terminologies such as Home Economics, skill development as well as sustainable development. It highlighted the importance of skill development in sustainable development and stated some impediments to it among Home Economics students in Nigeria (Adebayo & Yusuf, 2023).

Furthermore, Alaba and Addo (2017) carried out a study on nutrition education knowledge among primary school teachers in Ilaro, Ogun State Nigeria. One hundred teachers from various schools were randomly selected for the survey. A structured questionnaire was

used to obtain information on socio demographic characteristics. Knowledge of nutrition concepts was assessed and scored on twenty-one nutrition knowledge questions. Data were analyzed using descriptive and inferential statistics of chi- square. Result showed that 55 % of the respondents had knowledge of nutrition while 37% of the respondents got their nutrition information from nutrition newsletter.

Statement of the problem

Effective teaching and learning rely on laboratory equipment availability and utilization. Inadequate access to these resources can lead to the production of unskilled graduates who are ill-equipped for global competition and contributing to unemployment. Insufficient funding has resulted in outdated or insufficient laboratory equipment in Nigerian universities for effective teaching; where facilities exist, they are obsolete, which has contributed to a declining quality of Home Economics education graduates in Nigeria. Therefore, considering the potential of laboratory equipment in the study of Home Economics, it therefore becomes significant to study the enhancement of Teaching and Learning of Home Economics through Practical Skill Development of Home Economics within Nigerian institutions, particularly in the University of Calabar.

Research questions

1) What is the influence of practical skill development role in teaching and learning of Home Economics?
2) How does nutrition education role influence the integration of laboratory activities into teaching and learning of Home Economics?

Hypotheses

The following hypotheses were formulated to guide the study:

Ho1: Practical skill development role has no significant influence on teaching and learning of Home Economics.

Ho2: Nutrition education role has no significant influence on teaching and learning of Home Economics.

Methodology

This study adopted a survey research design. To successfully carry out the study, two research questions and two hypotheses were formulated to guide the study. The population of the study consists of forty (40) Home Economics students. Census sampling technique was adopted in selecting 40 respondents used for the study, since the populations is small and within the reach of the researchers.

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The instrument used for data collection was a structured questionnaire titled Home Economics through Practical Skill Development and Nutrition Questionnaire (HEPSDNQ), which was divided into three sections: Section A elicited respondents' demographic information; section B measured practical skill development variables, and section C assessed nutrition education roles in teaching and learning of Home Economics. The instrument consisted of 15 items in total, with items distributed across Sections B and C to reflect the key variables of the study.

To ensure validity, the questionnaire was subjected to face and content validation by experts in Home Economics Education and Measurement and Evaluation in the University of Calabar, who reviewed the items for clarity, relevance, and adequacy before final approval. The reliability of the instrument was established using the Cronbach Alpha statistical method based on a pilot test conducted outside the study area, which yielded a reliability coefficient of 0.82, indicating that the instrument was reliable for the study. The questionnaire adopted a four-point Likert scale response format of Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). Descriptive statistic was used to answer the research questions while linear regression analysis was used for testing the hypotheses. The hypotheses formulated were tested at .05 level of significanc*e*.

Presentation of results

Research question 1: What is the influence of practical skill development role on teaching and learning of Home Economics?

Table 1: Mean and standard deviations of practical skill development role required for teaching and learning of Home Economics

S/N	Practical skill development role	Mean	SD	Remarks
1	Typewriting influence teaching and learning	3.00	1.63	Agreed
2	Bread baking in food laboratory influences teaching and learning	3.10	1.59	Agreed
3	Fashion design boosts the performance of students	3.50	1.48	Agreed
4	Entrepreneurship skill affects teaching and learning	3.20	1.51	Agreed
5	Interpersonal skill development influences teaching and learning	2.45	1.65	Agreed

Key: SD = Standard Deviation, N = 40

To provide answers to question 1, weighted mean and standard deviation of respondents were used. The result is presented in Table 1. Table 1 presents the mean ratings of respondents on practical skill development role on teaching and learning of Home Economics. The Table shows that the five (5) isolated items recorded mean ratings between 2.55 and 3.69 which were above 2.50 cut-off point on the four-point scale. The result shows that the five (5) practical skill development role are required for teaching and learning of Home Economics. The standard deviation ranged from 1.48 to 1.65 which revealed that respondents were not far from the mean of one another in their responses.

Ho1: Practical skill development role has no significant influence on teaching and learning of Home Economics.

Linear Regression test statistic was employed in testing this hypothesis. The results of the analysis were presented on Table 2. Results of analysis on Table 2 show the predictive composite influence of practical skill development role on teaching and learning of Home Economics. The results indicate that the calculated f-value of 190.347 is greater than the critical f-value of 3.86 at 0.05 level of significance with 1 and 38 degrees of freedom. This means that practical skill development role has a significant influence on teaching and learning of Home Economics. By these results, the null hypothesis is rejected and the alternate upheld.

The R^2 of the simple linear regression in Table 2 measures the degree of determination coefficient of the predictor (practical skill development role) on teaching and learning of Home Economics. It predicts that 52.1% of the variation on teaching and learning of Home Economics is explained by the variation of the predictor (practical skill development role), while 47.9% of the variations in the teaching and learning of Home Economics is explained by other variables which are extraneous to the study.

The coefficient in Table 2 of .653 (65.3 percent) shows that a percentage increase in practical skill development role, while other variables are held constant, would lead to 65.3 percent increase on teaching and learning of Home Economics. The t-statistics in the Table show that the calculated t-value for practical skill development role (13.797) is greater than the critical t-value of 1.966 at .05 level of significance with 1 and 38 degrees of freedom. This means that practical skill development role has a significant influence on teaching and learning of Home Economics. That is, the higher the level of practical skill development role, the higher the level of teaching and learning of Home Economics and vice-versa.

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Table 2: Linear regression analysis on practical skill development role and teaching and learning of Home Economics

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1	.722[a]	.521	.518	1.818	1.386

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	629.078	1	629.078	190.347	.700[b]
Residual	578.357	38	3.305		
Total	1207.435	39			

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	5.965	.720		8.282	.000
	Practical skill development nrole	.653	.047	.722	13.797	.000

a. Dependent Variable: teaching and learning of Home Economics

Research question 2: How does nutrition education role influence the integration of laboratory activities in teaching and learning of Home Economics?

Table 3: Mean and standard deviations of nutrition education role used in teaching and learning of Home Economics.

S/N	**Nutrition education role**	**Mean**	**SD**	**Remarks**
1	Arranging of Laboratory facilities available for different uses in the laboratory	3.01	1.60	Agreed
2	Careless loss of tools and materials due to pilfering must be constantly checked	2.45	1.52	Disagreed
3	Giving students the opportunity to practice using the same laboratory materials	3.20	1.54	Agreed
4	Ensuring maintenance of different machines in the laboratory	3.08	1.57	Agreed
5	Improving the security arrangement in the laboratory by checking pilfering of machines by both staff and students	2.43	1.65	Disagreed

Key: SD = Standard Deviation, N = 40

To provide answers to research question 2, weighted mean and standard deviation of respondents were used. The result is presented on Table 3. Table 3 presents the mean ratings of respondents on the role of nutrition education on teaching and learning of Home Economics. The table shows that the five (5) isolated items recorded mean ratings between 2.42 and 3.20. Out of the five items on the table, three were above 2.50 cut-off point on the four-point scale, while two items were below.

Ho2: Nutrition education role has no significant influence on teaching and learning of Home Economics.

Linear regression test statistic was employed in testing this hypothesis. The results of the analysis were presented in Table 4.

Table 4: Simple linear regression analysis on influence of nutrition education on teaching and learning of Home Economics

Model		**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1		.420[a]	.177	.172	2.383	1.006
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	213.433	1	213.433	37.576	.000[b]
	Residual	994.002	38	5.680		
	Total	1207.435	39			

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	9.815	.980		10.013	.000
	Nutrition education role	.405	.066	.420	6.130	.000

a. Dependent Variable: Teaching and learning of Home Economics

Results of analysis in Table 4 show the predictive composite influence of nutrition education role on teaching and learning of Home Economics. The results indicate that the

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calculated f-value of 37.576 is greater than the critical f-value of 3.86 at .05 level of significance with 1 and 38 degrees of freedom. This means that nutrition education role has a significant influence on teaching and learning of Home Economics. By these results the null hypothesis is rejected and the alternate upheld.

The R^2 of the linear regression on Table 4 measures the degree of determination coefficient of predictor (nutrition education role utilization) on teaching and learning of Home Economics. It predicts that 17.7% of the variation on teaching and learning of Home Economics is explained by the variation of predictor (nutrition education role), while 82.3% of the variations in the teaching and learning of Home Economics is explained by other variables which are extraneous to the study.

The coefficient in Table 4 of .405 (40.5 percent) shows that a percentage increase in nutrition education role, while other variables are held constant, would lead to 40.5 percent increase in teaching and learning of Home Economics. The t-statistics in the Table shows that the calculated t-value for nutrition education role (6.130) is greater than the critical t-value of 1.966 at 0.05 level of significance with 1 and 38 degrees of freedom. This means that nutrition education role has a significant influence on teaching and learning of Home Economics. That is, the higher the level of nutrition education role, the higher the level of teaching and learning of Home Economics and vice-versa.

Discussion of the findings

The first hypothesis seeks to investigate the significant influence of practical skill development role on teaching and learning of Home Economics. The results of analysis using linear regression test statistic show the predictive influence of practical skill development role on teaching and learning of Home Economics. This means that practical skill development role has a significant influence on teaching and learning of Home Economics. By these results, the null hypothesis is rejected and the alternate upheld. This finding is in line with Udo (2015) who conducted a study on techniques for improving practical skills development in Home Economics towards sustainable development in Nigeria. To start with, the study defined terminologies such as Home Economics, skill development as well as sustainable development. It highlighted the importance of skill development in sustainable development and stated some impediments to it among Home Economics students in Nigeria.

The second hypothesis sought to examine the significant influence of nutrition education role on teaching and learning of Home Economics. The results of analysis using linear regression test statistic show the predictive influence of nutrition education role on

teaching and learning of Home Economics. By these results, the null hypothesis is rejected and the alternate upheld. This means that nutrition education role has a significant impact on teaching and learning of Home Economics. That is, the higher the level of nutrition education role, the higher the level of teaching and learning of Home Economics and vice-versa. The finding of this study agrees with the report of Alaba and Addo (2017), who examined nutrition education knowledge among primary school teachers in Ilaro, Ogun State, Nigeria. The results showed that a reasonable proportion of the teachers (about 55%) demonstrated adequate knowledge of nutrition, indicating that nutrition education had reached a fair number of respondents. Additionally, the study revealed that a notable number of the teachers (about 37%) obtained their nutrition information from newsletters, suggesting that informal and media-based sources also play a role in knowledge acquisition. This outcome implies that exposure to nutrition education, whether formal or informal, contributes significantly to individuals' knowledge and can positively influence teaching and learning processes, which supports the present study's finding that nutrition education enhances Home Economics education.

Conclusion

The main purpose of this study was to determine the role of practical skill development and nutrition education in enhancing teaching and learning outcomes in Home Economics. It was therefore concluded that practical skill development and nutrition education enhance teaching and learning outcomes in Home Economics. By investing in these critical areas, Nigeria can strengthen its capacity to produce knowledgeable and skilled professionals who can contribute significantly to the nation's home economics and public health agenda.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. School authorities should encourage and motivate Home Economics educators to develop the identified food practical skills to improve their performances in business world.
2. Time without number, education facilities need to be evaluated to discover the areas that need improvement to meet the aim and objectives of Home Economics.

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