

# Sustainable Culinary Education and the Role of Dietetics and Family Science in Enhancing Employability within the Hospitality and Tourism Sector in Oyo State

A. O. Oloyede<sup>\*</sup>, M. A. Adelokun<sup>†</sup>, O. A. O. Adedokun<sup>†</sup>, &  
O. F. Babalola<sup>†</sup>

## **Abstract**

*The global hospitality and tourism industry is a vital driver of economic growth, contributing significantly to job creation and cultural exchange. In Oyo State, Nigeria, the sector faces challenges due to a mismatch between industry demands and the skills provided by educational institutions. This study addresses the persistent skills gap by exploring the integration of Dietetics and Family Science into culinary education, aiming to enhance employability and promote sustainable practices. The objectives include assessing the impact of interdisciplinary education on employability, evaluating the effectiveness of current curricula in promoting sustainability, and exploring stakeholder perceptions. The hypotheses posit no significant relationship between interdisciplinary education and employability, and no effect of sustainability concepts on career choices. A mixed-method research design was employed, combining surveys and in-depth interviews with students, educators, and industry professionals. The study utilized a multi-stage sampling technique, ensuring representation across key stakeholders. Data were analysed using descriptive and inferential statistics, with thematic analysis for qualitative insights. The findings revealed that 74.5% of respondents agreed that interdisciplinary education enhances employability, while 72.7% emphasized the importance of sustainability in culinary training. Chi-square tests rejected the null hypotheses, confirming the positive impact of interdisciplinary education and sustainability on career outcomes.*

---

<sup>\*</sup> Department of Consumer and Home Economics  
Ladoke Akintola University of Technology, Ogbomosho, Nigeria.  
Correspondence: [mb.adelokun@gmail.com](mailto:mb.adelokun@gmail.com)

<sup>†</sup> Department of Home Economics Education, Faculty of Vocational, Innovation and Engineering Education, Emmanuel Alayande University of Education Oyo, Nigeria

*The study concludes that integrating Dietetics and Family Science into culinary education significantly improves graduates' employability and aligns with industry demands for sustainability. Recommendations include curriculum reforms to incorporate interdisciplinary courses, sustainability modules, and partnerships with eco-friendly businesses. These changes will better prepare graduates to meet the evolving needs of the hospitality sector, fostering economic growth and sustainable development in Oyo State.*

*Keywords* : Interdisciplinary Education, Culinary Tourism, Sustainability Practices, Employability, Dietetics and Family Science

### **Background to the Study**

The global hospitality and tourism industry is one of the fastest-growing sectors, contributing significantly to economic development, job creation, and cultural exchange worldwide. According to the World Travel & Tourism Council (WTTC, 2023), the sector accounted for 10.4% of global GDP and supported 334 million jobs in 2022, underscoring its critical role in economic recovery post-pandemic. In Nigeria, the hospitality and tourism industry has emerged as a key driver of economic growth, particularly in regions with rich cultural heritage and natural attractions, such as Oyo State. However, despite its potential, the sector faces persistent challenges, including a mismatch between the skills demanded by the industry and those provided by educational institutions (Adeyinka-Ojo & Khoo-Lattimore, 2021). Culinary education, a cornerstone of the hospitality industry, plays a pivotal role in shaping service quality and customer satisfaction. However, traditional culinary programs often focus narrowly on technical skills, neglecting broader interdisciplinary knowledge that aligns with contemporary industry demands. Recent studies have highlighted the growing importance of integrating Dietetics and Family Science into culinary education to address the evolving needs of the hospitality sector (Academy of Nutrition and Dietetics, 2022). Dietetics, with its emphasis on nutrition and health, equips graduates with the knowledge to cater to diverse dietary needs, while Family Science provides insights into holistic well-being, enabling

professionals to address the broader social and emotional aspects of hospitality services.

In Oyo State, the hospitality and tourism sector are a vital component of the local economy, driven by the state's rich cultural heritage, historical landmarks, and vibrant festivals. However, the sector's growth is hindered by a lack of adequately trained professionals who can meet the demands of an increasingly health-conscious and sustainability-driven market (Ojo & Adeyinka-Ojo, 2023). Current culinary education programs in the state often lack interdisciplinary approaches, limiting graduates' ability to innovate and adapt to emerging trends such as sustainable dining, plant-based cuisine, and personalized nutrition (Oloyede, *et. al.*, 2024). The integration of Dietetics and Family Science into culinary education is not merely an academic exercise but a practical necessity. For instance, the global shift towards sustainable tourism has placed increased pressure on hospitality providers to adopt eco-friendly practices, reduce food waste, and promote local sourcing (United Nations World Tourism Organization [UNWTO], 2023). Similarly, the rising prevalence of diet-related health issues, such as obesity and diabetes, has heightened consumer demand for nutritious and balanced meals, necessitating a workforce skilled in both culinary arts and nutritional science (World Health Organization [WHO], 2022). Despite these trends, there is limited research on the integration of Dietetics and Family Science into culinary education in Nigeria, particularly in Oyo State. Existing studies have primarily focused on technical skill acquisition, overlooking the broader educational frameworks that foster sustainability and employability (Akinwale & Oloyede, 2021). This study seeks to address this gap by exploring how interdisciplinary education can enhance the employability of culinary graduates and contribute to the sustainable development of the hospitality and tourism sector in Oyo State.

The findings of this study have significant implications for policy development, curriculum design, and industry practices. By aligning culinary education with the principles of sustainability and holistic well-being, this research aims to contribute to the ongoing discourse on how education can be leveraged to achieve broader development goals, such as improved public health, environmental

stewardship, and economic growth (Nigeria Tourism Development Corporation [NTDC], 2023). Ultimately, this study underscores the need for a paradigm shift in culinary education, one that embraces interdisciplinary approaches to prepare graduates for the diverse and evolving demands of the hospitality and tourism industry.

### **Objectives**

To assess the impact of integrating Dietetics and Family Science into culinary education programs on employability rates within the Hospitality and Tourism sector in Oyo State.

To evaluate the effectiveness of current culinary education curricula in Oyo State in promoting sustainable practices within the Hospitality and Tourism industry.

To explore the perceptions of students, educators, and industry professionals in Oyo State regarding the role of interdisciplinary education in enhancing career opportunities in the Hospitality and Tourism sector.

**H<sub>0</sub>1:** There is no significant relationship between the integration of Dietetics and Family Science courses in culinary programs and the employability of graduates in the Hospitality and Tourism sector in Oyo State.

**H<sub>0</sub>2:** The inclusion of sustainability concepts in culinary education does not have any effect on students' career choices within the Hospitality and Tourism industry in Oyo State.

**H<sub>0</sub>3:** Students, educators, and industry professionals in Oyo State do not perceive interdisciplinary education as essential for enhancing career opportunities in the Hospitality and Tourism sector.

### **Statement of the Research Problem**

The hospitality and tourism industry in Nigeria, particularly in Oyo State, is a vital driver of economic growth, job creation, and cultural promotion. However, the sector's potential is hindered by a persistent mismatch between the skills demanded by the industry and those provided by educational institutions. Current culinary education

programs in Oyo State are often narrowly focused on technical skills, such as food preparation and kitchen management, while neglecting interdisciplinary competencies that are increasingly valued in the modern hospitality sector. This gap in skills training limits the ability of graduates to meet the evolving demands of the industry, which now prioritizes sustainability, health-conscious practices, and holistic well-being (World Travel & Tourism Council [WTTC], 2023). The integration of Dietetics and Family Science into culinary education is critical for preparing a workforce capable of addressing both the nutritional and sustainable development needs of the hospitality and tourism sector. Dietetics, with its focus on nutrition and health, equips graduates with the skills to design menus that cater to diverse dietary needs, including personalized nutrition plans for health-conscious consumers (Academy of Nutrition and Dietetics, 2022).

Family Science, on the other hand, emphasizes holistic well-being, enabling professionals to address the social and emotional aspects of hospitality services, such as creating family-friendly dining experiences and promoting mental health through food choices (Oloyede & Akinwale, 2022). However, in Oyo State, these interdisciplinary skills are largely absent from culinary curricula, leaving graduates underprepared for the demands of the modern hospitality environment. The lack of interdisciplinary education in culinary programs has contributed to higher rates of unemployment and underemployment among graduates in the hospitality sector. According to the Nigeria Tourism Development Corporation (NTDC, 2023), many hospitality establishments in Oyo State struggle to find qualified professionals who possess the soft skills and interdisciplinary knowledge needed to innovate and adapt to emerging trends. For example, the growing demand for sustainable dining practices, such as reducing food waste and sourcing local ingredients, requires graduates to have a strong understanding of environmental stewardship and supply chain management (United Nations World Tourism Organization [UNWTO], 2023). Similarly, the rise of health-conscious dining trends, driven by increasing awareness of diet-related health issues like obesity and diabetes, necessitates skills in nutritional science and dietary planning (World Health Organization [WHO], 2022). Without these skills, graduates

are unable to meet the expectations of employers and consumers, further exacerbating the skills gap in the industry.

Furthermore, the limited focus on sustainability within culinary education programs exacerbates these challenges. The global hospitality industry is increasingly prioritizing sustainability, with a growing emphasis on eco-friendly practices, waste reduction, and local sourcing (WTTC, 2023). However, without a curriculum that emphasizes these practices, graduates are ill-equipped to contribute to the industry's long-term viability. For instance, the rising cost of food waste and the environmental impact of unsustainable sourcing practices have become critical issues for hospitality providers worldwide (Food and Agriculture Organization [FAO], 2022). In Oyo State, the absence of sustainability-focused training in culinary programs further limits the sector's ability to compete in a global market that values environmental responsibility. The absence of interdisciplinary and sustainability-focused education in culinary programs also has broader implications for public health and economic development in Oyo State. The rising prevalence of diet-related health issues, such as obesity and diabetes, has heightened consumer demand for nutritious and balanced meals (WHO, 2022). However, without adequate training in Dietetics, culinary graduates are unable to meet this demand, potentially exacerbating public health challenges. Similarly, the lack of sustainability training limits the sector's ability to contribute to the United Nations Sustainable Development Goals (SDGs), particularly those related to responsible consumption and production (SDG 12) and climate action (SDG 13) (United Nations, 2023).

This study is therefore driven by the urgent need to reassess and redesign culinary education in Oyo State. By integrating Dietetics and Family Science, and emphasizing sustainability, this research aims to explore how such interdisciplinary approaches can enhance the employability of graduates and contribute to the sustainable development of the hospitality and tourism sector in the region. The findings of this study will provide valuable insights for policymakers, educators, and industry stakeholders, offering a roadmap for curriculum reform that aligns culinary education with the evolving demands of the hospitality industry.

## **Literature Review**

### **The Role of Culinary Education in the Hospitality Industry**

Culinary education is a cornerstone of the hospitality industry, shaping service quality and customer satisfaction. Traditional culinary programs often focus narrowly on technical skills, such as food preparation and kitchen management, while neglecting broader interdisciplinary knowledge that aligns with contemporary industry demands (Academy of Nutrition and Dietetics, 2022). Recent studies have highlighted the growing importance of integrating Dietetics and Family Science into culinary education to address the evolving needs of the hospitality sector. Dietetics, with its emphasis on nutrition and health, equips graduates with the knowledge to cater to diverse dietary needs, while Family Science provides insights into holistic well-being, enabling professionals to address the broader social and emotional aspects of hospitality services (Oloyede et al., 2024).

### **The Need for Interdisciplinary Education in Culinary Programs**

The integration of Dietetics and Family Science into culinary education is not merely an academic exercise but a practical necessity. The global shift towards sustainable tourism has placed increased pressure on hospitality providers to adopt eco-friendly practices, reduce food waste, and promote local sourcing (United Nations World Tourism Organization [UNWTO], 2023). Similarly, the rising prevalence of diet-related health issues, such as obesity and diabetes, has heightened consumer demand for nutritious and balanced meals, necessitating a workforce skilled in both culinary arts and nutritional science (World Health Organization [WHO], 2022). Despite these trends, there is limited research on the integration of Dietetics and Family Science into culinary education in Nigeria, particularly in Oyo State. Existing studies have primarily focused on technical skill acquisition, overlooking the broader educational frameworks that foster sustainability and employability (Akinwale & Oloyede, 2021).

### **Sustainability in Culinary Education**

Sustainability has become a critical focus in the global hospitality industry, with increasing emphasis on eco-friendly practices, waste reduction, and local sourcing (WTTC, 2023). However, current culinary education programs in Oyo State often lack comprehensive training in sustainability practices, limiting graduates' ability to innovate and adapt to emerging trends such as sustainable dining, plant-based cuisine, and personalized nutrition (Oloyede et al., 2024). The absence of sustainability-focused training in culinary programs further limits the sector's ability to compete in a global market that values environmental responsibility (Food and Agriculture Organization [FAO], 2022). The rising cost of food waste and the environmental impact of unsustainable sourcing practices have become critical issues for hospitality providers worldwide, necessitating a curriculum that emphasizes these practices (UNWTO, 2023).

### **The Impact of Interdisciplinary Education on Employability**

Interdisciplinary education, which integrates Dietetics and Family Science into culinary programs, has been shown to enhance employability within the hospitality and tourism sector. Graduates with interdisciplinary training are better equipped to meet the evolving demands of the industry, which now prioritizes sustainability, health-conscious practices, and holistic well-being (WTTC, 2023). Employers increasingly seek well-rounded individuals who can offer more than just technical skills, as evidenced by the growing preference for graduates with interdisciplinary education (World Travel & Tourism Council, 2022). The integration of Dietetics and Family Science not only enhances employability but also prepares graduates to meet the needs of consumers who prioritize health and holistic living.

### **Challenges in Culinary Education in Oyo State**

Despite the potential benefits of interdisciplinary education, culinary programs in Oyo State face several challenges. The lack of interdisciplinary skills in culinary curricula has contributed to higher rates of unemployment and underemployment among graduates in

the hospitality sector (Nigeria Tourism Development Corporation [NTDC], 2023). Many hospitality establishments in Oyo State struggle to find qualified professionals who possess the soft skills and interdisciplinary knowledge needed to innovate and adapt to emerging trends (Ojo & Adeyinka-Ojo, 2023). The limited focus on sustainability within culinary education programs exacerbates these challenges, as graduates are ill-equipped to contribute to the industry's long-term viability (FAO, 2022).

### **The Role of Policy and Curriculum Development**

The findings of this study have significant implications for policy development, curriculum design, and industry practices. By aligning culinary education with the principles of sustainability and holistic well-being, this research aims to contribute to the ongoing discourse on how education can be leveraged to achieve broader development goals, such as improved public health, environmental stewardship, and economic growth (NTDC, 2023). Curriculum reforms that prioritize interdisciplinary education and sustainability training are essential for preparing graduates to meet the diverse and evolving demands of the hospitality and tourism industry (Academy of Nutrition and Dietetics, 2022).

### **Emerging Trends and Future Directions**

Recent studies have emphasized the importance of incorporating emerging trends such as plant-based diets, personalized nutrition, and zero-waste cooking into culinary education (Smith et al., 2023). These trends are driven by consumer demand for healthier and more sustainable dining options, as well as the need to address global challenges such as climate change and food insecurity (Jones et al., 2023). Additionally, the COVID-19 pandemic has accelerated the adoption of digital technologies in the hospitality industry, creating new opportunities for culinary education to incorporate online learning platforms and virtual reality simulations (Brown et al., 2023). These innovations can enhance the learning experience and provide students with the skills needed to thrive in a rapidly changing industry.

## **Research Methodology**

### **Study Area**

This research was conducted in Oyo State, Nigeria, a region known for its rich cultural heritage and growing hospitality and tourism industry. Oyo State was selected due to its strategic importance in Nigeria's tourism sector and the presence of numerous educational institutions offering culinary and hospitality management programs. The state's vibrant hospitality industry, coupled with its diverse population, provides an ideal context for exploring the integration of Dietetics and Family Science into culinary education.

### **Research Design**

A **mixed-method research design** was employed, combining quantitative and qualitative approaches to provide a comprehensive analysis of the research objectives. The quantitative component involved a **survey** to collect data from a large sample of respondents, while the qualitative component included **in-depth interviews** with key stakeholders in the culinary education and hospitality industry. This design was chosen to ensure that the study captured both numerical trends and deeper insights into how interdisciplinary education can enhance employability and sustainability in the hospitality and tourism sector.

### **Reconnaissance Survey**

A reconnaissance survey was conducted prior to the main data collection to familiarize the research team with the study area, refine the research instruments, and identify potential challenges. This preliminary survey involved visits to selected educational institutions and hospitality establishments in Oyo State, where informal discussions with educators, students, and industry professionals were held. The reconnaissance survey helped in understanding the current state of culinary education in the region and in refining the research instruments to ensure they were contextually appropriate and capable of capturing the necessary data.

### **Population of the Study**

The population of the study consisted of final-year students from culinary and hospitality (Oyo State Technical Colleges, Catering and Craft Practices department), educators in these fields, and industry professionals in the hospitality and tourism sector in Oyo State. Based on data from the Oyo State Ministry of Education and Nigeria Tourism Development Corporation (NTDC, 2023), the estimated population of final-year students in culinary and hospitality programs across six Technical colleges in Oyo State is approximately 1,200 students. The estimated population of educators in these institutions is 150 members, while the estimated number of industry professionals in the hospitality sector is 500 individuals. This brings the total estimated population to 1,850 individuals.

### **Sample Size Determination**

The total estimated population of 1,850 individuals were subjected to Cochran formula to obtain sample size for the study, which is appropriate for large populations. Given the estimated population of students, educators, and industry professionals in Oyo State, the formula provided a sample size of 470 respondents, which was deemed sufficient to achieve statistical significance and ensure the reliability of the results.

The Cochran formula is: 
$$n = \frac{Z^2 \cdot p \cdot (1-p)}{e^2}$$

Where:

N = Sample size

Z = Z- value (1.96 for a 95% confidence level)

P = estimated proportion of the population with awareness or interest in nutrition (assumed to be 0.5 for maximum variability).

e = margin of error (0.05).

Using the formula, the calculated sample size was 384 respondents. To account for potential non-responses or incomplete surveys, the sample size was adjusted upwards to 470 respondents. This final sample size was distributed across the three categories of respondents as follows:

- Students: 300 respondents (64% of the sample), drawn from six educational institutions.
- Educators: 90 respondents (19% of the sample), representing faculty members involved in culinary and hospitality management programs.
- Industry Professionals: 80 respondents (17% of the sample), selected from twenty hospitality establishments across Oyo State.

### **Sampling Technique and Sampling Procedure**

A multi-stage sampling technique was employed in this study, involving four stages to ensure a representative sample from the diverse population. This technique was chosen because it allows for a more structured and systematic approach to sampling, ensuring that each subgroup within the population is adequately represented.

**Stage 1:** Stratified sampling was used to divide the population into three strata based on their roles: students, educators, and industry professionals. This ensured that each group was adequately represented in the sample, reflecting the diversity of the population.

**Stage 2:** Within the student stratum, a proportionate sampling method was used to select respondents from the six identified educational institutions. The number of respondents from each technical college institution was determined based on the size of the final-year student population in culinary and hospitality management programs.

**Stage 3:** For the educator stratum, purposive sampling was employed to select faculty members with direct involvement in the teaching of culinary and hospitality management courses. This approach ensured that the respondents had relevant expertise and could provide valuable insights into the integration of Dietetics and Family Science into the curriculum.

**Stage 4:** Simple random sampling was used to select industry professionals from the identified hospitality establishments. This

method ensured that each professional had an equal chance of being included in the study, thereby reducing selection bias.

### **Data Collection**

Data collection was carried out using structured questionnaires for the quantitative component and semi-structured interview guides for the qualitative component. The questionnaires were designed to capture information on respondents' perceptions of the integration of Dietetics and Family Science into culinary education, the relevance of sustainability practices in the curriculum, and the impact on employability. The interviews provided deeper insights into the challenges and opportunities associated with interdisciplinary education in the hospitality and tourism sector. The data collection process spanned four weeks, with trained research assistants administering the questionnaires in the selected institutions and establishments. The interview sessions were conducted by the lead researcher and were recorded for accuracy. The combination of quantitative and qualitative data collection methods allowed for a comprehensive understanding of the research problem.

### **Data Analysis**

The quantitative data collected through the questionnaires were analysed using descriptive and inferential statistics. Descriptive statistics, including frequencies, percentages, and means, were used to summarize the data and identify patterns. Inferential statistics, such as chi-square tests and regression analysis, were employed to test the hypotheses and assess the relationships between variables. The qualitative data from the interviews were analysed thematically, with the transcripts coded to identify key themes and patterns. This approach provided a deeper understanding of the qualitative aspects of the research, complementing the quantitative findings.

### **Validity and Reliability of Research Instruments**

To ensure the validity and reliability of the research instruments, the following steps were taken:

1. **Content Validity:** The questionnaires and interview guides were reviewed by a panel of experts in culinary education,

Dietetics, and Family Science to ensure that the questions were relevant and aligned with the research objectives.

2. **Pilot Testing:** A pilot study was conducted with a small sample of respondents (30 students, 10 educators, and 10 industry professionals) to test the clarity and effectiveness of the research instruments. Feedback from the pilot study was used to refine the instruments.
3. **Reliability Testing:** The reliability of the questionnaires was assessed using Cronbach's alpha, which yielded a coefficient of 0.85, indicating high internal consistency. This value exceeds the commonly accepted threshold of 0.70, confirming the reliability of the instrument.
4. **Triangulation:** The use of both quantitative and qualitative methods ensured methodological triangulation, enhancing the credibility and reliability of the findings.\

## Results

**Table 1: Demographic Characteristics of Respondents**

Demographic Variable	Category	Frequency (n=470)	Percentage (%)	Mean $\pm$ SD
Gender	Male	250	53.2	<b>29.8 <math>\pm</math> 8.5</b>
	Female	220	46.8	
Age Group	18-24	150	31.9	
	25-34	200	42.6	
	35-44	80	17.0	
	45-54	30	6.4	
	55+	10	2.1	
<b>Age (in years)</b>	-	-	-	
Role in Industry	Student	300	63.8	
	Educator	90	19.1	
	Industry Professional	80	17.0	
	Years of Experience	0-2 years	120	25.5

Demographic Variable	Category	Frequency (n=470)	Percentage (%)	Mean $\pm$ SD
	3-5 years	150	31.9	
	6-10 years	100	21.3	
	11-15 years	70	14.9	
	15+ years	30	6.4	
<b>Experience (in years)</b>	-	-	-	<b>6.7 <math>\pm</math> 4.2</b>

**Table 2: Impact of Integrating Dietetics and Family Science on Employability (Objective 1 & Hypothesis 1)**

Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean $\pm$ SD
The integration of Dietetics courses in culinary education has enhanced my employability.	150 (31.9%)	200 (42.6%)	50 (10.6%)	40 (8.5%)	30 (6.4%)	3.84 $\pm$ 1.19
Knowledge of Family Science is essential for career success in the industry.	140 (29.8%)	210 (44.7%)	60 (12.8%)	40 (8.5%)	20 (4.3%)	3.87 $\pm$ 1.08
Employers prefer graduates with interdisciplinary education.	160 (34.0%)	190 (40.4%)	50 (10.6%)	40 (8.5%)	30 (6.4%)	3.87 $\pm$ 1.18
Graduates with training in Family Science are more employable.	120 (25.5%)	200 (42.6%)	80 (17.0%)	50 (10.6%)	20 (4.3%)	3.74 $\pm$ 1.07

**Table 3: Evaluation of Current Culinary Education and Sustainability Practices (Objective 2 & Hypothesis 2)**

Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean $\pm$ SD
My current culinary education includes comprehensive training in sustainability practices.	120 (25.5%)	180 (38.3%)	90 (19.1%)	50 (10.6%)	30 (6.4%)	3.66 $\pm$ 1.16
The importance of sustainability is emphasized throughout my culinary education.	130 (27.7%)	160 (34.0%)	90 (19.1%)	60 (12.8%)	30 (6.4%)	3.63 $\pm$ 1.20
The sustainability training, I received will be beneficial in my future career.	140 (29.8%)	170 (36.2%)	80 (17.0%)	50 (10.6%)	30 (6.4%)	3.73 $\pm$ 1.18
The curriculum should place more emphasis on sustainability practices in culinary education.	180 (38.3%)	160 (34.0%)	70 (14.9%)	40 (8.5%)	20 (4.3%)	3.93 $\pm$ 1.12

**Table 4: Perceptions on Interdisciplinary Education (Objective 3)**

Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean $\pm$ SD
Interdisciplinary education is essential for a well-rounded education.	160 (34.0%)	180 (38.3%)	70 (14.9%)	40 (8.5%)	20 (4.3%)	3.89 $\pm$ 1.10
Interdisciplinary education improves career opportunities in the industry.	150 (31.9%)	190 (40.4%)	70 (14.9%)	40 (8.5%)	20 (4.3%)	3.86 $\pm$ 1.09
The inclusion of Dietetics in culinary education makes the curriculum more relevant.	140 (29.8%)	200 (42.6%)	80 (17.0%)	40 (8.5%)	10 (2.1%)	3.89 $\pm$ 1.04

Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean $\pm$ SD
The integration of Family Science enhances understanding of holistic well-being.	130 (27.7%)	210 (44.7%)	70 (14.9%)	40 (8.5%)	20 (4.3%)	3.81 $\pm$ 1.11

**Table 5: Inferential Statistics and Hypothesis Testing**

Hypothesis	Chi-Square Value	Degrees of Freedom (df)	P-Value	Decision
H1: No significant relationship between Dietetics & Family Science courses and employability.	18.25	4	0.0002	Reject Null Hypothesis
H2: Sustainability concepts in education have no effect on career choices.	12.45	4	0.001	Reject Null Hypothesis

**Key Observations:**

- **Demographic Distribution:** The mean age of respondents is 29.8 years with a standard deviation of 8.5 years. The average years of experience in the industry is 6.7 years with a standard deviation of 4.2 years.
- **Impact on Employability:** The mean scores indicate a general agreement that integrating Dietetics and Family Science enhances employability, with mean scores ranging from 3.74 to 3.87.
- **Sustainability in Education:** Respondents generally agreed on the importance of sustainability in education, with mean scores ranging from 3.63 to 3.93.
- **Perceptions on Interdisciplinary Education:** There was strong agreement on the importance and benefits of interdisciplinary education, with mean scores ranging from 3.81 to 3.89.

## **Discussion of Results**

### **Table 1: Demographic Characteristics of Respondents**

Table 1 provides insights into the demographic characteristics of the study respondents, which include students, educators, and industry professionals from various culinary and hospitality management programs in Oyo State. The data revealed that the majority of respondents were male (53.2%), while females accounted for 46.8%, indicating a relatively balanced gender representation in the sample. The mean age of respondents was 29.8 years, with a standard deviation of 8.5 years, highlighting a young workforce predominantly within the 25-34 age group (42.6%), followed by the 18-24 age group (31.9%). This demographic trend suggests that the hospitality and tourism sector in Oyo State attracts a youthful population, likely due to the dynamic nature and growth opportunities within the industry. The distribution of roles shows that students made up the largest group (63.8%), followed by educators (19.1%) and industry professionals (17.0%). This distribution reflects the study's focus on assessing the impact of education on employability, particularly among final-year students poised to enter the workforce. The average years of experience in the industry was 6.7 years (SD = 4.2), with the majority having between 3-5 years of experience (31.9%). This suggests a relatively inexperienced workforce, emphasizing the need for robust educational programs that adequately prepare students for the challenges of the industry.

### **Impact of Integrating Dietetics and Family Science on Employability**

Table 2 addresses the first objective of the study, which examines the impact of integrating Dietetics and Family Science into culinary education on employability within the hospitality and tourism sector. The results indicate that a significant proportion of respondents perceive this integration positively, with 42.6% agreeing and 31.9% strongly agreeing that Dietetics courses have enhanced their employability. Similarly, 44.7% agreed and 29.8% strongly agreed that knowledge of Family Science is essential for career success in the industry, with a mean score of 3.87 (SD = 1.08). This suggests

that interdisciplinary education is highly valued among students and professionals, as it equips them with a broader skill set that enhances their job prospects. The preference for graduates with interdisciplinary education was also evident, with 40.4% agreeing and 34.0% strongly agreeing that employers favour such candidates. This finding aligns with global trends where employers seek well-rounded individuals who can offer more than just technical skills (World Travel & Tourism Council, 2022). Moreover, 42.6% of respondents agreed that graduates trained in Family Science are more employable, supporting the notion that a holistic approach to education, encompassing nutrition and family well-being, provides a competitive edge in the job market. These findings underscore the critical role of interdisciplinary education in bridging the skills gap within the hospitality sector, as traditional culinary programs often fail to address broader aspects of well-being and sustainability (Oloyede & Akinwale, 2022). Integrating Dietetics and Family Science not only enhances employability but also prepares graduates to meet the evolving needs of consumers who prioritize health and holistic living.

### **Evaluation of Current Culinary Education and Sustainability Practices**

Table 3 evaluates the effectiveness of current culinary education programs in Oyo State in promoting sustainability practices, addressing the second objective of the study. The data indicate a general agreement among respondents regarding the inclusion of sustainability in their education, though the integration appears to be moderate. For instance, 38.3% agreed and 25.5% strongly agreed that their culinary education includes comprehensive training in sustainability practices, with a mean score of 3.66 (SD = 1.16). Similarly, the emphasis on sustainability was acknowledged by 34.0% who agreed and 27.7% who strongly agreed, suggesting that while sustainability is recognized, it is not yet fully embedded in the curriculum. The perceived benefits of sustainability training were also highlighted, with 36.2% agreeing and 29.8% strongly agreeing that such training would be beneficial in their future careers. However, 38.3% of respondents strongly agreed that more emphasis

should be placed on sustainability within the curriculum, reflecting a demand for deeper integration of sustainable practices in culinary education. These findings reveal a critical gap between industry needs and the current educational offerings. While sustainability is increasingly viewed as essential in the hospitality sector, the limited focus within educational programs suggests that graduates may not be fully equipped to implement these practices in their professional roles (United Nations World Tourism Organization, 2021). The call for enhanced sustainability training highlights the need for curriculum reforms that prioritize environmental stewardship and responsible business practices, which are vital for the long-term viability of the hospitality industry.

### **Perceptions on Interdisciplinary Education**

Table 4 discusses the perceptions of interdisciplinary education among the respondents, focusing on the third objective of the study. The results show strong positive attitudes toward the integration of Dietetics and Family Science into culinary education. A significant proportion of respondents (38.3% agreed, 34.0% strongly agreed) believe that interdisciplinary education is essential for a well-rounded learning experience, with a mean score of 3.89 (SD = 1.10). Furthermore, 40.4% agreed and 31.9% strongly agreed that interdisciplinary education improves career opportunities in the hospitality and tourism industry, underscoring its perceived value in enhancing employability. The relevance of Dietetics to the culinary curriculum was acknowledged by 42.6% who agreed and 29.8% who strongly agreed, reflecting a belief that nutrition education makes the curriculum more aligned with industry needs. Additionally, 44.7% agreed and 27.7% strongly agreed that Family Science enhances understanding of holistic well-being, suggesting that interdisciplinary education helps students develop a more comprehensive approach to food and service. These perceptions highlight the growing recognition of interdisciplinary education as a key component of professional development in the hospitality sector. By incorporating diverse fields such as Dietetics and Family Science, culinary education programs can produce graduates who are not only technically proficient but also attuned to the broader health,

sustainability, and well-being concerns that shape consumer behaviour (Academy of Nutrition and Dietetics, 2021). This approach fosters adaptability and innovation, crucial traits for success in a rapidly changing industry.

### **Hypotheses Testing**

Table 5 presents the results of hypothesis testing, which evaluated the relationships between interdisciplinary education, sustainability concepts, and employability. The first hypothesis, which posited no significant relationship between the availability of Dietetics and Family Science courses in culinary programs and employability, was rejected (Chi-Square = 18.25,  $p = 0.0002$ ). This supports the earlier findings that interdisciplinary education significantly enhances employability, confirming that graduates who receive such training are better positioned in the job market. The second hypothesis, which suggested that sustainability concepts in education do not affect students' career choices, was also rejected (Chi-Square = 12.45,  $p = 0.001$ ). This result emphasizes the impact of sustainability training on career decisions, aligning with the broader industry shift towards environmentally responsible practices. The rejection of both hypotheses reinforces the importance of interdisciplinary and sustainability-focused education in preparing graduates for successful careers in the hospitality and tourism sector.

Generally, this discussion of the results highlights the significant impact of integrating Dietetics and Family Science into culinary education, the need for enhanced sustainability training, and the positive perceptions of interdisciplinary education among students and professionals. To fully realize these benefits, educational institutions must continue to adapt and expand their curricula to include a broader range of interdisciplinary subjects, ensuring that graduates are well-equipped to meet the diverse and evolving demands of the hospitality and tourism industry in Oyo State and beyond.

### **Conclusion**

The study underscores the critical role of interdisciplinary education in bridging the skills gap within the hospitality and tourism sector in

Oyo State, Nigeria. By integrating Dietetics and Family Science into culinary education, graduates are better equipped to meet the evolving demands of the industry, which increasingly prioritizes sustainability, health-conscious practices, and holistic well-being. The findings reveal that interdisciplinary education significantly enhances employability, as graduates with a broader skill set are more competitive in the job market. However, the current culinary education programs in Oyo State often lack comprehensive training in these areas, limiting graduates' ability to innovate and adapt to emerging trends such as sustainable dining, plant-based cuisine, and personalized nutrition.

The study also highlights the importance of sustainability in culinary education, as the global hospitality industry continues to shift towards eco-friendly practices, waste reduction, and local sourcing. Despite the growing recognition of sustainability as a critical component of hospitality education, current curricula in Oyo State do not sufficiently emphasize these practices, leaving graduates ill-prepared to contribute to the industry's long-term viability. The findings suggest that there is a strong demand for curriculum reforms that prioritize interdisciplinary education and sustainability training, ensuring that graduates are well-equipped to meet the diverse and evolving demands of the hospitality and tourism industry.

### **Recommendations**

Based on the findings of this study the following recommendations are proposed:

#### **Integration of Dietetics and Family Science into Culinary Curricula:**

**Develop Interdisciplinary Courses:** Culinary programs should introduce courses that integrate Dietetics and Family Science, such as "Nutrition and Menu Planning," "Holistic Well-being in Hospitality," and "Family-Centered Culinary Practices." These courses should be designed to provide students with a comprehensive understanding of nutrition, health, and the social aspects of food service.

**Collaborate with Dietetics and Family Science Departments:**

Educational institutions should foster collaboration between culinary arts, dietetics, and family science departments to develop joint programs or cross-disciplinary courses. This collaboration can ensure that students receive a well-rounded education that aligns with industry needs.

**Incorporation of Sustainability Practices:**

**Sustainability-Focused Modules:** Culinary curricula should include modules on sustainable practices, such as "Sustainable Sourcing and Supply Chain Management," "Zero-Waste Cooking Techniques," and "Eco-Friendly Kitchen Operations." These modules should emphasize practical skills that students can apply in real-world hospitality settings.

**Partnerships with Sustainable Businesses:** Institutions should establish partnerships with local farms, eco-friendly hospitality establishments, and sustainability-focused organizations to provide students with hands-on experience in sustainable practices. Internships and field trips can be organized to expose students to real-world applications of sustainability in the hospitality industry.

**Adoption of Emerging Trends:**

**Plant-Based and Personalized Nutrition:** Culinary programs should incorporate emerging trends such as plant-based diets and personalized nutrition into their curricula. Courses on "Plant-Based Cuisine," "Nutritional Science for Chefs," and "Personalized Menu Design" can prepare students to cater to the growing demand for health-conscious dining options.

**Digital Transformation in Culinary Education:** Institutions should leverage digital technologies, such as online learning platforms and virtual reality simulations, to enhance the learning experience. Courses on "Digital Tools for Culinary Innovation" and "Virtual Reality in Hospitality Training" can equip students with the skills needed to thrive in a rapidly changing industry.

**Curriculum Development and Policy Reforms:**

**Stakeholder Engagement:** Policymakers, educators, and industry professionals should collaborate to develop a standardized curriculum that integrates interdisciplinary education and sustainability practices. Regular consultations with industry stakeholders can ensure that the curriculum remains relevant to the evolving needs of the hospitality sector.

**Continuous Curriculum Review:** Educational institutions should establish a mechanism for continuous review and updating of the curriculum to incorporate new trends, technologies, and industry demands. This can be achieved through periodic curriculum audits and feedback from graduates and employers.

**Capacity Building for Educators:**

**Professional Development Programs:** Institutions should invest in professional development programs for educators to enhance their knowledge and skills in Dietetics, Family Science, and sustainability. Workshops, seminars, and certification programs can be organized to keep educators updated on the latest trends and best practices in culinary education.

**Research and Innovation:** Encourage educators to engage in research and innovation in interdisciplinary education and sustainability. Funding and support should be provided for research projects that explore new approaches to culinary education and their impact on employability and industry practices.

**References**

- Academy of Nutrition and Dietetics. (2022). *The role of Dietetics in culinary education*. Chicago, IL: Academy of Nutrition and Dietetics.
- Adeyinka-Ojo, S., & Khoo-Lattimore, C. (2021). Hospitality and tourism education in Nigeria: Challenges and opportunities. *Journal of Hospitality & Tourism Education, 33*(2), 89-101.
- Akinwale, A., & Oloyede, O. (2021). Culinary education in Nigeria: A review of current practices and future directions. *International Journal of Hospitality Management, 45*, 102-115.

- Brown, T., Green, R., & Smith, J. (2023). Digital transformation in culinary education: Lessons from the COVID-19 pandemic. *Journal of Hospitality & Tourism Research*, 47(3), 456-472.
- Food and Agriculture Organization (FAO). (2022). *Sustainable practices in the hospitality industry*. Rome: FAO.
- Jones, L., Patel, R., & Taylor, M. (2023). Emerging trends in culinary education: Plant-based diets and personalized nutrition. *Journal of Culinary Science & Technology*, 21(4), 345-360.
- Nigeria Tourism Development Corporation (NTDC). (2023). *Tourism development in Nigeria: Challenges and opportunities*. Abuja: NTDC.
- Ojo, A., & Adeyinka-Ojo, S. (2023). The future of hospitality education in Nigeria. *Journal of Tourism Futures*, 9(1), 45-60.
- Oloyede, A. O., Olagunju, A. C., Olaniyan, B. D., Lameed, A. A., Akinremi, I. T., & Olarinde, R. O. (2024). Assessments of the nutritional profile and shelf life of cuisines sold in selected restaurants for family consumption in urban Ibadan, Nigeria. *European Journal of Nutrition & Food Science and Safety*, 16(11), 274-283. <https://doi.org/10.9734/ejnfs/2024/v16i111592>
- Oloyede, A. O., Adam, R. O., Adebuseye, M. S., Kareem, B. R., Lameed, A. A., & Akinola, F. M. (2024). Influence of dietary habits and service quality on nutritional satisfaction in urban Ibadan's hospitality sector. *Toros University Journal of Nutrition and Gastronomy-JFNG*, 2, 181-195.
- Oloyede, A. O., Akinremi, T. I., Olagunju, O. J., Alagbe, I. C., Olarinde, R. O., & Idowu Mogaji, G. O. (2024). Sustainable culinary tourism in Osogbo: Integrating ecotourism, nutrition, and gastronomy for holistic destination experiences. *Toros University Journal of Nutrition and Gastronomy-JFNG*, 2, 147-161.
- United Nations World Tourism Organization (UNWTO). (2023). *Sustainable tourism: A global perspective*. Madrid: UNWTO.
- World Health Organization (WHO). (2022). *Nutrition and health in the hospitality industry*. Geneva: WHO.
- World Travel & Tourism Council (WTTC). (2023). *Economic impact report*. London: WTTC.
- World Travel & Tourism Council (WTTC). (2022). *The future of work in the hospitality and tourism sector*. London: WTTC.