

TRANSFORMING THE CULINARY ARTS CURRICULUM IN SOUTH AFRICA: A UNIVERSITY CASE STUDY

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ABSTRACT

In South Africa, many graduates cannot secure employment after completing their degree qualification. This is often due to a lack of experience, or curricula not aligned with the needs of employers, current workplaces and the relevant broader industry and society. To address this, curricula must be revised, renewed, or completely transformed. This article focuses on students' points of view on curriculum transformation; it explores their experiences, opinions, and suggestions to provide insight that will aid in short- or long-term changes to create a responsive and transformed curriculum.

Findings from the sample of 19 students at the University of Pretoria in South Africa suggest opportunities to include Afrikan knowledge, innovative culinary practice, and adaptable and flexible delivery methods to improve student engagement and work-integrated learning within the Culinary

Arts module. These results show the article's contribution to ideas and approaches needed to encourage sustainable hospitality and tourism development in the Afrikan region using responsive and transformed curricula. In the future, a student-centred culinary curriculum may produce graduates with fine-tuned abilities, knowledge, and attitudes to address modern-day industry needs, along with a sense of how their contribution could help to address the socio-economic inequalities of South Afrika and Afrika.

Keywords: Curriculum, culinary arts, responsive curriculum, graduates, industry, unemployment, Africa.

INTRODUCTION AND BACKGROUND

In 2023, the official unemployment rate in South Africa was estimated at 31.9 per cent (Statistics South Africa 2023). Even more alarming are the most recent reports, which indicate that 32.9 per cent of graduates aged 15–24 remain unemployed (Statistics South Africa 2022). This is often due to a lack of experience despite educational levels, appropriate industry knowledge and skills, and being ill-prepared for entering an ever-changing and disruptive workplace (Council on Higher Education 2013). Furthermore, there is a lack of entrepreneurial skill development within existing university-level curricula, which could unlock contributions to economic growth and job creation across all sectors (Hasan, Khan and Nabi 2017).

The hospitality and food service sector, including travel and tourism, has the potential to partially address unemployment in South Africa through generating more job-opportunities in both the entrepreneurial and formal space. Globally, the tourism sector is considered to be one of the world's fast-growing economic sectors (Aynalem, Birhanu and Tesefay 2016), with the industry in South Africa recovering to 96 per cent of pre-pandemic (Covid-19) levels in 2023 (UNWTO 2024). The travel and tourism sectors and other related industries are significant contributors to the global economy, employing over 330 million people and generating more than 10 per cent of global GDP, according to the World Travel and Tourism Council (2020). Statistics South Africa estimates that food and beverage is an eight-billion-rand industry and a significant contributor to the hospitality industry and employment in South Africa (Statistics South Africa 2023).

However, post-COVID-19, there is an increasing staffing shortage of more than a million hospitality and food service sector workers in the United Kingdom alone (Deputy 2019), with ever more worrying challenges to retain staff (Frye, Kang, Huh and Lee 2020). Many reasons have been identified for this shortage, including ageing populations in developed economies, seasonality in some sectors, anti-social working conditions, perceived low career prospects resulting in limited appetite to pursue a hospitality career, as well as high levels of worker

mobility and frequent exploitation of migrant workers (Aynalem et al. 2016; Baum 2019; Deri, Zaazie and Bazaanah 2021; Partington 2016; Walmsley et al 2018).

It is, therefore, clear that the local and global industry requires competent workers to serve the needs of this ever-changing and growing sector of society. Industry role players need competent culinary graduates who understand the increasingly demanding clients while simultaneously acknowledging and accommodating diverse work environments and co-workers. These employers need graduates/employees who are equipped to multitask, think critically, have a good attitude, and present a professional image. To this end, curricula at tertiary institutions need to be revised to respond to the needs and transformative requirements of the industry within the 21st century. Teaching and learning staff at these institutions like the University of Pretoria find themselves in a unique position to respond to the call for social transformation (van der Merwe and Septoe 2015) and align the curriculum with the nature, relevance of content, and skills required by the industry.

In 2017, the South African National Department of Higher Education and Training (DoHET) developed a National Policy on Curriculum Development and Implementation to set the agenda for transforming the Post-School Education and Training sector to align with the goals of the progressive socioeconomic agenda of the National Development Plan of 2030 (DoHET 2017). This Plan adopted a transformative vision (Adonis and Silinda 2021) to create an equal, free, and democratic country for all, focusing on addressing socio-economic inequalities through improved education. Any curriculum change must also be aligned with the guidelines for the respective degrees and policies of the Council of Higher Education (Council on Higher Education 2024), National Qualifications Framework (NQF), and South African Qualification Authority (SAQA 2024) as well as industry requirements. However, despite over half a century of national and international education, a well-composed strategy and many developmental efforts, the promises of quality education remain unfulfilled (Engelbrecht 2020).

What comes into question is whether culinary education, such as the subject in this study, provides a commensurately transformative learning environment that offers opportunities to align curriculum to promote greater employability and work-retention through the required competency development that employers seek.

CURRICULUM TRANSFORMATION IN CULINARY ARTS

Howson and Kinsbury (2021) wrote that curriculum reform is an iterative top down and bottom-up process, where renewed institutional policies guide the process for reform while stakeholders'

input influences the transformation from the bottom up. The focus is from teaching to learning, and from staff and students as passive to active agents in the curriculum.

The need for curriculum transformation in the Culinary Arts classroom originates from a demand for more competent (skilled) graduates for the food and hospitality industry including attitudes of seriousness, commitment, and passion for the industry (van der Merwe and Septoe 2015). A transformed Culinary Arts curriculum aims to develop generic and transferable skills from the class into the workplace and vice versa. At the same time, by exposing students to the industry and the practical aspects of operating a food service establishment will provide opportunities for students to learn from real life settings and applications (Whitelaw, Barron and Buultjens 2009). For example, to ensure that the learning offered to the students is practical and relevant in the Culinary Arts industry, it should be aligned with the current and future demands and needs of the industry, which is why most hospitality learning programmes require some form of work-integrated learning like practicums or internships as part of the curriculum. While trends in different styles of foods and hospitality come and go, student populations change, and lecturers should be able to adapt their understanding, teaching, and facilitation of learning within the diverse capabilities and competencies of their students. Leach and Zepke (2011, 1) write, “Successful institutions have cultures that focus on student success, foreground student learning in their mission, establish high expectations, aim for continuous improvement, invest money in support services, assert the importance of diversity and difference and prepare students for learning in higher education”. Students can better achieve their employability and study goals under these circumstances, and continuous classroom-industry engagement should be the object of a more active and transformative learning environment at tertiary institutions. Such a model focuses on active learning, where students learn to self-manage, make decisions, and become self-aware of their potential and purpose within an everchanging work environment and the world (Leach and Zepke 2011). Current students need a renewed and transformative approach to learning since they are having access to different information via the Internet, technology-based learning, and industry-based knowledge. Students can also access social media, online modules, digital textbooks, video material, and artificial intelligence directly from their digital devices (Gikas and Grant 2013). This gives them access to almost any information in the world as well as from the industry to make real-life decisions and plans. As co-facilitators of learning, both academics and students can develop digital literacy to help bridge learning and practice gaps. Culinary Art learning facilitators find themselves uniquely positioned to transform the culture of food service through how they teach and facilitate

learning (Berrett 2012), using different knowledge systems and how they structure the learning environment.

ENABLING THE STUDENT'S VOICE

While some research has been conducted on the need for Culinary Arts degrees at tertiary institutions, documented information on student opinions is scarce. Chapman (2003) speaks to students' engagement and success regarding their "cognitive investment, active participation and emotional commitment" to their learning. Improved involvement of students in the learning outcomes of the curriculum, including content, learning activities, assessments and learning conditions, is important to facilitate higher quality learning and competency development. It is, therefore, imperative to heed the opinions of past graduates and the current students themselves regarding the skills and knowledge they require to be employed, and which would be relevant to the hospitality and tourism industry.

This research aims to inform the transformation of the Culinary Arts curriculum at the University of Pretoria by incorporating the students' perspectives on their learning in the classroom, understanding the need to diversify the learning process, recognising the importance of industry-based engagement, and then being responsive to the needs of both the students and industry.

PROBLEM

Historically, the South African educational system has not accommodated and kept pace with the changes and demands of industries and society to be responsive. The curriculum "remained largely unchanged despite the major changes in social and economic conditions" (Council on Higher Education 2013). These conditions include changes in industry, technology, the role of students in implementing pedagogies aligned with the country's changes in politics, and the type of language, history, and student and staff participation (Mendy and Madiope 2020). Students have different demands and needs as they are different from previous generations, being more tech-savvy and fully part of the digital world from a young age (Berrett 2012).

However, to produce relevant and competent graduates to enter the workforce, curricula must be transformed and aligned to the industry and address the needs of society, including generational learning changes within students. Curriculum transformation as a strategic learning process must not only address industry and student demands but also facilitate the development of shared knowledge, skills, and attitudes with the involvement and participation

of key role players and stakeholders in the curriculum, as well as learning spaces. Therefore, the applicability, relevance and transformation of curricula are critical conditions for tertiary institutions wishing to produce competent graduates for an ever-changing world. Renewing the Culinary Art curriculum in South Africa should be done with reference to the Afro-global context, recognising the unique social histories and legacies shaping the lived experiences and perceptions of its people and communities. Any such attempt to facilitate employability and sustainability within the growing food and hospitality sector should also align with the National Development Plan 2030 (Mbanda and Fourie 2020), the Africa Agenda 2063 (Ndizera and Muzee 2018), and globally, with the UN Sustainable Development Goals to ensure sustainable development (Chankseliani and McCowan 2021).

At a national level, the transformation of the South African post-school education and training sector has become a strategic driver for socio-economic development and sustainability in the country (Habiyaemye, King, and Tregenna 2022). At the University of Pretoria, curriculum transformation is part of the strategic goals to identify short- and long-term social transformation institutional priorities and strategies, including establishing baseline evidence for targeted interventions with immediate impact on employability and sustainability. The Transformation Framework catch-line reads “Reimagining Curricula for a Just University in a Vibrant Democracy” and is based on four drivers, namely: Responsiveness to social context, Epistemological diversity; Renewal of pedagogy and classroom practices, and an Institutional culture of openness and critical reflection (University of Pretoria 2023).

Transforming particularly the Culinary Arts curriculum may pose additional challenges, including hybrid spaces for education and in-service training (physical, virtual and augmented realities), adaptable and flexible learning outcomes and spaces, incorporation of technology, and entrepreneurial development within a local yet globally competitive world (Mendy and Madiope 2020).

Mendy and Madiope (2020) also argues that curricula should reflect local developments within a global movement of flexible mobility, rapid change and cross-continent trends in food and travel, while addressing local socio-economic challenges such as localising the food industry and promoting local travel for sustainability.

PURPOSE AND AIM

To contribute to curriculum transformation, this collaborative research project between the Department of Consumer and Food Sciences, University of Pretoria and the Engaged Scholar Tirisano Projects, University of South Africa, aimed to describe and explore the learning experiences and perceptions of students enrolled in the VDS414 Culinary Arts module during 2022 on areas of curriculum revision and transformation. This included only students from the degree programmes BConSci Hospitality Management and BSc Culinary Sciences at the Department of Consumer and Food Sciences, University of Pretoria.

A sample of these students was asked to share their recent experiences and opinions about the current curriculum to provide insight to guide short- and long-term changes intended to revise and transform the curriculum. Furthermore, it aimed to establish baseline information to identify critical interventions and strategies to revise and transform the curriculum towards a more student-centred and industry-based responsive curriculum, addressing the needs and sustainability of hospitality and tourism development in the African region.

The results from this survey will guide best practices that can be used to improve the teaching and learning of Culinary Arts and emphasise student-centred learning, employability and sustainability through community and industry engagements. Therefore, the teaching and learning provided through these degrees must be re-imagined, ensuring the production of graduates who are prepared for service in and to the society in which they will function, as well as being employable by industry. Critical curriculum transformation interventions and strategies towards an improved curriculum were identified through this collaborative research project.

As part of a broader collaborative research project, this article takes the first step towards aligning the culinary curricula with the broader transformation goals of education.

METHODOLOGY

A mixed research design using a Situation and Response Analysis Framework is used to facilitate the broader collaboration research project. This article used a rapid assessment to focus on only one element: the student voice.

A situation and response analysis framework often facilitates policy or programme development to address social issues or priorities (Kalenda 2016). It provides an opportunity to investigate (describe, explore, and assess) the situation of a specific social issue and then further investigate the responses from different role-players and stakeholders to identify possible gaps. A situational analysis looks at the social, cultural, demographic, economic and environmental

contexts of the social issues. In contrast, the response analysis evaluates the factors that drive or cause the patterns or trends, illustrates effects and impacts (both negative and positive), and provides evidence of possible good. The gap analysis between the situation and response allows us to identify priority areas for interventions and improvements (United Nation High Commissioner for Refugees 2022). Kaur (2017) indicates that a situation and response analysis framework is beneficial in curriculum development and review, as it allows one to evaluate the intended outcomes and potential impacts against evidence from current practices to meet the demands of education, industry, and society. She further argues that using this framework provides evidence-based decision-making to develop critical teaching and learning interventions to enhance student employability and self-reliance.

This framework was used to design and develop multi-staged collaborative research utilising mixed research methods, including qualitative and quantitative methods, to gather, review and analyse data inputs from diverse sources to identify and describe the need for curriculum transformation as well as how the current curriculum is responding to the educational, industry and societal needs, while possible gaps are being identified to implement short-, medium- and long-term interventions.

This article is based on the first stage of the situation and response analysis framework by conducting a baseline on the experiences and perceptions of students enrolled at the University of Pretoria for the VDS414 Culinary Arts Module during 2022. Students had to write ethnographic reflective essays based on open-ended questions and later complete a semi-structured questionnaire compiled from the main themes of these essays. This allowed the students to share their experiences, observations and thoughts on the module and suggest some areas of improvement.

The research was conducted in the second semester, meaning students could reflect on their first-semester experience. Questions in the reflective essay included whether the current culinary arts module addressed their needs in a democratic South Africa and whether their expectations, skills, knowledge, and values were transferred through education towards applicability and relevance. The essays and questionnaire were introduced to the sample of 19 students as part of their formative assessment, for which they received an incentive mark to participate and complete the survey. The questionnaire comprised quantitative and open-ended questions to measure the knowledge gained and the difficulty of each of the 14 lessons. Furthermore, students were asked to comment on their reason for taking the course, enjoyment of the different aspects of the module, the time spent on each learning activity, the lecturer, and the modules' relevance, applicability, employability, transferability, adaptiveness, and the

students' personal and social development. In the next section the questionnaire comprised several questions prompting the participant to give advice to other students, make suggestions and recommendations on how the module can be improved, and comment on the content, assessment, and the delivery format. Students were briefed, and informed consent was obtained before the assessment details were sent. Thematic qualitative and descriptive statistical analyses were done to summarise the main findings and results of the baseline research. The results are further validated by a previous curriculum evaluation conducted by Fisher and Louw (2020) to prioritise some interventions for possible impacts on graduate readiness and employability.

All students enrolled during 2022 (19 participants) for the BConSci Hospitality Management and BSc Culinary Sciences degrees and who attended compulsory fourth-year level Culinary Arts module classes took part in this research. The results were firstly analysed qualitatively to identify rich themes and shared sentiments, while in the follow-up questionnaire basic statistical analysis was used. The entire class of 19 students completed an existing digital questionnaire that was developed in 2021. The student sample consisted of 89.5 per cent female and 5.3 per cent male respondents, and one person preferred not to disclose. Almost 83 per cent were 21 and 22 years old, while the rest were between 23 and 24 years old. Of the 19 students, 47.7 per cent identified as Black, 47.7 per cent as white, and 1 per cent as Asian. Of the sample, 31.6 per cent spoke English at home, 26.3 per cent Afrikaans, 15.8 per cent IsiZulu, 10.5 per cent Sepedi and 5.3 per cent Setswana. Of the 19 students, 58 per cent indicated they lived in private lodgings, 26 per cent lived at home, 11 per cent other and 5 per cent in UP residences.

Ethics approval was received through the University of South Africa, NHREC Registration #: Rec-240816-052, CREC Reference #: 90002105_CRECHS_2021.

RESULTS

Analysing student motivations for studying hospitality and culinary sciences highlighted a blend of career aspirations, personal development, and scientific interest. Strong influences from family members, teachers and professional chefs were mentioned, together with curiosity about the food industry.

The students reported a general enjoyment of the module with a preference for the event management component, above practicals, demonstrations, and theory lessons. Weekly Time Spent on attending classes was the lowest, with an average of 3.7 hours per week; homework (4.5 hours), research (5.7 hours), and practical food preparation and cooking averaged 8.2 hours per week. This points to a high practical load. The module facilitator was evaluated on a Likert scale, with five being the highest and scored high on Knowledge ($m=4.68$), Preparation and

Organisation ($m=4.00$) and Engagement ($m=4.21$), with a neutral score for student-centeredness ($m=3.05$).

ASSESSMENT OF THE CURRICULUM

Summarised in Table 1, the respondents were asked to rate the content of the module on a Likert-type scale (1 = not at all, to 5 = very high) according to the criteria: Relevance, Applicability, Employability, Transferability, Adaptiveness and Personal and Social Development. The respondents rated Applicability ($M = 4.42$) and Transferability ($M = 4.36$) very high. Employability and Adaptiveness of the module were rated high, with a mean of 3.94. The overall high means indicate that respondents felt that the content of the module was relevant, applicable, transferrable, and adaptive and provided them with the necessary knowledge and skills to be employable while adding to their personal and social development.

Table 1: Overall rating of the Culinary Arts Module

ELEMENTS	Frequencies (n=19)					Mean
	1 Not At All	2 Low	3 Neutral	4 High	5 Very High	
Relevance (talking to needs of industry and society)	0	2	4	10	3	3.37
Applicable (practical to be done in the real world)	0	0	2	7	10	4.42
Employability (knowledge, skills, and attitudes to enhance employability)	0	1	2	7	9	3.94
Transferability (transferring knowledge to other contexts or situations)	0	0	2	8	9	4.36
Adaptiveness (flexible to change)	0	1	4	9	5	3.94
Personal and Social Development (inter-and intra-personal skills)	0	2	6	8	3	3.63

LESSONS AND PRACTICAL DIFFICULTY

To explore the students' view of the module content, they were asked to report on each of the 14 study themes. This was done using a 5-point Likert scale question to determine which lessons the students found more (or less) complicated than what they learned, i.e., Knowledge Gained. The following was observed. The Site Visit lesson in Figure 1 was rated the lowest ($M = 1.68$) for lesson difficulty. However, in a subsequent question, they indicated they had learned a lot about various professional industry operations during the Site Visit ($M = 4$). Other lessons that the sample rated low in terms of lesson difficulty were Tableside Cooking ($M = 1.84$) and Breakfast Cookery ($M = 1.84$). It may well be that these lessons are “easier” than some of the other content lessons. However, like the Site Visit lesson, it is possible to attain high knowledge even from a lesson that may not be so difficult. The Practical Examination was reported to be the most difficult ($M = 4.53$), and interestingly, the sample reported to have gained knowledge ($M = 4.17$).

High scores for lesson difficulty were awarded to the Chocolate lesson ($M = 4$) and the Practical Examination ($M = 4.53$). Interestingly, these two lessons scored the highest for knowledge gained, with a mean of 4.41. and 4.17, respectively.

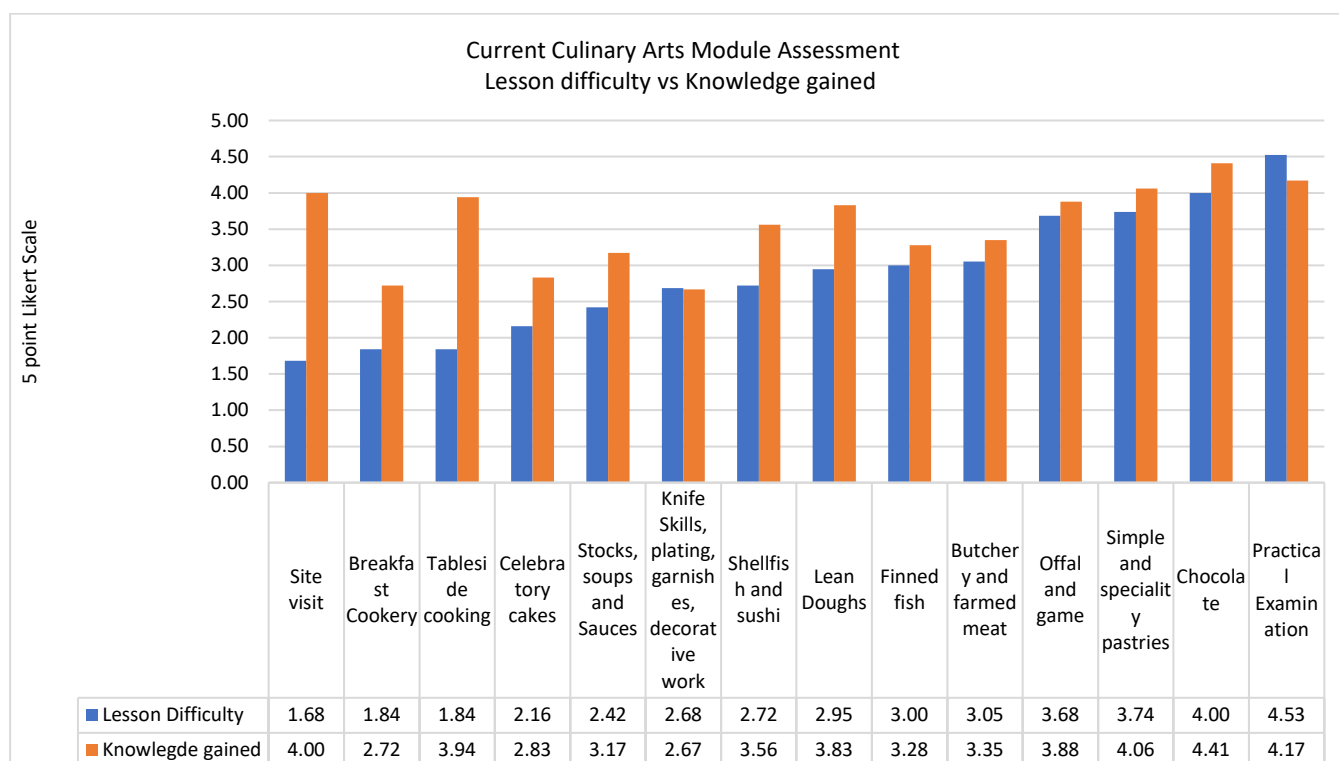


Figure 1: Lesson difficulty compared to knowledge gained from the 14-week Culinary Art Module

CONTENT, DELIVERY AND ASSESSMENT OF THE CURRENT CURRICULUM

The participants were asked to share their recent experiences with the Content, Delivery Format and Assessment of the VDS414 module by writing an ethnographic essay. Based on the qualitative feedback received, the current Culinary Arts curriculum appeared overwhelming for most learners. Eight participants specifically mentioned high workloads, while others had concerns about not having enough time, having to rush preparations, managing the workload, and lots of seemingly irrelevant extra study material. Students pointed out that there is a considerable amount of content to master, with too much repetition of techniques across different food preparation modules year after year. One participant stated that "the actual volume of work was the biggest challenge" and "some of the content was difficult to grasp". Another pointed out that assessments did not cover the same content as during classes and found it challenging to identify the relevant information amongst the extra reading material and videos. Participants expressed that the content needs to keep up with modern-day "trends", that practice menus within each lesson were outdated, and that textbooks were not "fashionable". Several comments suggested the curriculum needed more depth, variety, and comprehensive coverage, as the content was limited and repetitive from previous years. One participant wrote "Look more at being specific with important concepts and techniques and going into depth with the techniques" and another stated, "A lot of techniques and concepts were not taught in enough detail". Repetition of content was mentioned by one student who wrote "As I move through the years of my studying I would like to gain more knowledge through new information and not only revision of previous years". There were also observations of the lectures being too brief, while others appreciated the conciseness.

Furthermore, participants were asked to comment on the highlights of the module, give any critique and provide suggestions. They found the content "fun and exciting" and "interesting" and enjoyed how the theory material and multimedia were visual yet concise. Participants appreciated the relationship between practical and theory and found it "difficult but rewarding". Regarding criticism and solutions, the high workload was the most reported topic, with calls for deeper dives into specific topics whilst aligning assessments with content and removing repetition from previous years and irrelevant extra learning materials.

The delivery format during the COVID-19 pandemic was mainly online and presented considerable challenges. Ten participants indicated obstacles to the online teaching of the content, relating to internet connectivity, poor sound or video quality, load shedding and access or time constraints, as one reported I "couldn't attend live (online) sessions". The lack of a formal classroom setting and no opportunity for peer discussion or face-to-face interaction with

the module facilitator seemed to interfere with learning. However, the benefits of online learning and digital tools outweigh most of these challenges. Four participants indicated the benefits of re-watching recorded lessons and accessing digital resources. Many believe there is space for increased use of technology and social media within the module.

Nine participants found the assessment criteria of tests and examinations to be lacking in clarity, being mismatched, “vague”, “unclear”, or “does not always match the content that is being assessed”. While three students mentioned confusion and difficulty: “I felt unprepared for the tests” and “...very frustrating experience”. Four students criticised the amount and timing of assessments. Two participants had no critique, and another two shared positive sentiments about assessments. As one participant stated: “tests and exams are well structured, and they force you to think not just write from your memory”, which points to high-level critical thinking at the tertiary level. The overarching theme is that most participants felt ill-equipped to take assessments and expressed a need for better structure and alignment between curriculum outcomes and assessments.

STRENGTHS, WEAKNESSES, AND CHALLENGES IN THE CURRICULUM

The VDS 414 Culinary Arts module was lauded for content on practical culinary techniques, relevant theory, industry exposure, and professional skills. One participant stated: “This degree really pushes your skills in organisation, time management and cleanliness...” and another “... has trained me to be able to function under pressure it will help me stand out as an employee or leader.” Participants noted that the curriculum emphasises industry preparedness, as proved by the quote “...will be very applicable in the industry”, although others felt unprepared for “the real world”.

The identified weaknesses are the limited content of beverages and non-European cuisines and the limited opportunity for innovation and creative cooking. The curriculum focused too much on Western culinary themes and did not make room for current trends, new technology, or innovation. Participants wanted more opportunities to master technical skills such as chocolate tempering and be allowed to create their own dishes.

Stress management was a consistent theme, with many feeling anxious about the pace, workload and balancing of various responsibilities. Several participants noted that group discussions and open communication with peers are very beneficial in countering the related pressures. Some found the minimalistic presentation of content lacking, while others found the “summary... very helpful.” One participant positively commented, “theory content was

understandable because the lecturer explained the study theme". This indicates the importance of articulating the framework for learning before teaching and learning can start.

INSIGHTS INTO IMPROVEMENTS AND OPPORTUNITIES

The participants provided some insights for overall recommendations to improve the current curriculum. These recommendations are grouped according to theoretical module recommendations, practical module recommendations, and recommendations to future students.

In terms of theoretical aspects, they felt that lecturer involvement enhances knowledge, but that mentoring could be improved. A more comprehensive range and greater array of food-related and workplace knowledge, such as critical thinking and problem-solving skills, must be encouraged. One participant requested simulated obstacles within the lesson content or "curve balls" that would address real-world problems such as equipment breakdown or budget cuts. Theory content should be less repetitive, more contextually "relevant", and application-based, but not lose a scientific approach, which could include applied research. The sample of 52 per cent felt that the module should include more trendy aspects, including addressing "global changes" or "worldly knowledge". Issues such as food scarcity, food waste, cost of living and sustainable cooking were shared concerns. There was a clear need (n=84%) for more industry exposure through guest speakers (experts, chefs, alumni), site visits, internship modules, volunteer opportunities, and introductions to future employers. Five participants identified a need for knowledge and skills outside the scope of the current VDS414 Culinary Arts module and specifically requested more interaction and collaboration with students and experts in other fields, such as agriculture, food manufacturing, marketing, digitisation and technology, and food psychology. Of the 19 participants in the sample, 11 highlighted that being more globally oriented and better educated would benefit them in their job search, employability, and success. The high workload was addressed by 11 participants who suggested self-study for less complex content, better alignment between content and assessments, and less repetition between content from current and previous modules. All participants showed awareness for the professional skills obtained throughout the VDS414 module: time management, teamwork, problem-solving, conflict management, work-life balance, mental health management, and ability to transfer skills and knowledge, and indicated that lecturers should be more intentional in their approaches towards developing these skills. Regarding values, the participants felt that their value system was supported, but more sensitivity and fairness may be required. They certainly felt the interdependence on their peers and highlighted the need and significance of ubuntu, the

South African colloquial word for “I am because we are”, which refers to humanity towards others.

In terms of recommendations on improving the practical component of the module, they felt that more skills diversity is needed, along with what was termed more “depth”, even though they thought there was good constructive interaction between theoretical and practical skills. Participants requested more opportunities to practise advanced technical recipes (chocolate tempering) and to reduce the repetition of basic cooking techniques. They suggested more exposure to beverages (especially coffee), flavour pairings, food styling, packaging, food photography, menu engineering and writing, food chemistry and physics, and dietary trends, for example, plant-based ingredients.

Participants felt the need to include more content on trends and global cuisines, with a lesser focus on traditional French cooking, with 100 per cent of the sample suggesting more focus on African Cuisine and indigenous ingredients. They recommended that African-related content include African cooking techniques, indigenous cuisines, traditional and cultural foods, and the utilisation of South African food brands and locally sourced ingredients. Participants also wanted more opportunities to apply African cooking through demonstrations and events and recommended incorporating elements of African cuisine in their weekly practical menus. They believed that for global readiness, students should be aware of other cultures' cuisines and should particularly understand African cuisine, such as voiced in the example verbatim quotes below.

“When it comes to the practical component, the level and types of dishes should be modern and serve as practice dishes that would appeal to the industry. Various unique and different ingredients should be introduced to increase knowledge and exposure, and more and different cuisines should be introduced. This helps improve and increase students' palate and kitchen and food preparation skills.”

The rapid assessment was intended to generate inputs that could be used to advise future students. Self-management was the most prominent, with topics such as planning (57%), time management (42%), and asking for help via open communication (37%). Other advice included allowing oneself to fail as part of the learning process, having thick skin, and collaborating with peers. Respondents felt a sense of achievement in what they accomplished personally and as a group during the semester, as per the verbatim quote below.

“I believe this module to us is/was one of our biggest challenges in life, but we still held on even when we felt it was too much. So, I think us learning to manage and balance our personal lives with the module is the greatest accomplishment.”

SUMMARY AND DISCUSSIONS

This research aimed to review the current curriculum and practices against the experiences, perceptions, demands, and needs of students enrolled in the VDS414 class of 2022.

The structure of the classes includes theory, demonstrations, practical cooking sessions, event management, and site visits. No substantial evidence from both the rapid assessment and ethnographic essays was found that the module structure should be reviewed, but students indicated that they could benefit from more contact time with the lecturer. Students gained valuable information and practice from the combination of these different learning experiences that solidified their knowledge and skills. In terms of assessment, participants felt the need for better-aligned assessments and feedback after receiving the assessment. There seems to be frustration and uncertainty around the process and purpose of assessment.

To comprehend and explain the students' view of each lesson in the VDS414 module, they responded regarding the difficulty level and knowledge gained. The Chocolate Lesson and the Practical Examination were perceived as the two most difficult lessons, although both these lessons were awarded very high scores for knowledge gained. It is encouraging to see that although participants found the Chocolate Lesson difficult, at the same time they gained much knowledge from it. Chocolate work is a specialised field, and it will always require more development during post-graduation learning. The participants found the knowledge they gained in the practical examination lesson very valuable. Since this is a summative assessment opportunity, there should not be any transfer of new knowledge but should build on previous formative assessments. This could be explained by the structure of the examination, which allows students to gain other knowledge that is not factual or theory-related but rather relates to their awareness and growth: self-esteem, innovative cooking, problem-solving, managing time and overcoming obstacles during the examination.

There were clear and repetitive requests to include African Cuisines, more globally relevant topics, and modern food systems in the curriculum. During the 2022 VDS414 module, the students were marginally exposed to more local African cultures and cuisines, indigenous cooking styles, and ingredients. This clearly prompted their curiosity about the relevancy and uniqueness of these cuisines. In a global society where Africanness is being recognised and becoming increasingly relevant, it is essential to equip food graduates with the knowledge and skills to report and inform others about our local ingredients, cuisines, and cultural food traditions. South Africa has many different cultures and cuisines without formally published content for use in education.

Overall, Culinary Arts students may often feel overwhelmed by the workload and pace; on the one hand, students observed that a “greater array of knowledge” was acquired, but on the other hand, they also felt that the large volume of work was a problem. The challenge of time management was a theme throughout. It was noted that students struggled to use multiple information sources and would prefer a single, more concise source. However, they also appreciated the various mediums of information (visual media, videos, books, and practical demonstrations with hands-on opportunities).

The participants were concerned about food security and food waste, a practice that is complicated to address in a teaching environment. In learning environments, there should be opportunities to repeat and improve when failing to execute a recipe correctly, but this could lead to food waste. The problem is that certain dishes, such as confectionaries and pastries, are challenging to produce in very small portions. Sugar confectionaries require meticulous control of sugar temperature; if the portion is too small, it becomes difficult to control. The participants did indicate that group work could alleviate specific difficulties, but on the other hand, if students do not have opportunities to practise basic and more advanced cooking skills individually, they could be left without a complete skill set. The participants further elaborated on the module's sustainability practices after food waste. Furthermore, to address the request to limit repetition, it is understandable that students may think they do not want to repeat techniques between different years or even in the same curriculum. However, if there is just one opportunity to master a technique, for example, choux pastry, students who have not mastered the art would not have another opportunity. Repetition is an integral part of learning and mastering a skill, especially in food preparation (Trubek 2016).

Participants also wished for more trendy content and fashionable dishes to be part of the practical cookery lessons. Learning essential skills in cooking starts with mastering food preparation techniques and then being able to apply them extensively. Modern-day students have access to global trends in food and plating and compare the content of the curriculum with what they see on social media and digital platforms. It is noted that their opinions on what is valuable to learn and what is currently trendy do not align. Trends have a place in all education, but trends come and go, and the lasting ability of skills that can be applied in the global context is far more useful. Curriculum development cannot be based on trends but instead includes limited content that addresses the need to learn about current and historical trends. This observation emphasises the outdatedness of the curriculum and prescribed materials. Currently, two textbooks are prescribed, along with an array of recommended ones: *On Cooking: A Textbook of Culinary Fundamentals* (Labensky, Hause and Martel 2018) and *Understanding*

Food: Principles and Preparation (Brown 2009). It must be noted that context-specific textbooks are still unavailable in South Africa at this time.

CONCLUSION AND RECOMMENDATIONS FOR CULINARY ARTS CURRICULUM TRANSFORMATION

In conclusion, curriculum transformation means fundamental changes to curriculum educational processes and opportunities in a particular context. Curriculum transformation should be more of a metamorphosis than a complete overturning of the status quo. Curriculum transformation must be an intergenerational project that leads to something that can be both new and renewed. There is a need to identify whether what we do now in the curriculum should continue, what should be abandoned, and what needs to be creatively reimaged afresh (van der Merwe and Septoe 2015). This means going beyond reforms that improve our education systems and our educational practices. “Transformative education empowers as it connects people and the world; exposes them to new possibilities; and strengthens their capacities for critique, dialogue, knowledge creation, and action” (UNESCO 2022). Bridging the gap between industry and education requires knowing how to create the appropriate curriculum materials. For this, we require:

- a curriculum that makes space for all cultures of the country: culturally significant techniques, increased use of indigenous and African ingredients and foods,
- Much more involvement with industry: site visits, visiting guest lecturers, practical industry experiences, culinary internships,
- Skills not related to cooking: problem-solving and communication skills, time management, values (mutual respect, fairness, inclusivity), acceptance of responsibilities, community support, increased use of Information and Communication Technologies (ICTs), including exposure to modern kitchen technologies, knowledge skills based on African cuisines and ingredients, learning to work as a group,
- Awareness of food waste, sustainability, conscious cooking, the value of food,
- Awareness of mental health,
- Different formats of learning, increased research focus, more innovation,
- An aligned curriculum that achieves the outcomes of the relevant SAQA level.

SUGGESTED SHORT-TERM IMPROVEMENT

In terms of the relevance of the module, most respondents who took part in this research agreed that the module should evolve and adapt together with industry and society.

The research found that the practical component might require redesigning of the 14-week cooking menus to include more global and, specifically, African cuisines, to be trendier, and to address food-related issues such as technology use, innovation, food scarcity, and carbon footprints.

The first necessary curriculum change would include more content on African cuisines and culinary spaces. In general, this topic is relatively young, relevant recipes are limited, and currently, no formal academic book, content, or material exists to cater for this educational need at the tertiary level. However, it would be possible to increase exposure immediately and have students research topics as part of their module work. It would be possible to replace some ingredients, recipes, and dishes with indigenous substitutes for practical lessons.

That the module should be trendier may be a complicated discussion. Keeping the content updated and fresh is important but is outweighed by the requirement to impart essential skills. Graduates are expected to become the trendsetters of the future, but to become a trendsetter one needs a solid advanced understanding of food, technical skills in food preparation, and the ability to innovate. To be trendier and to eliminate ingredients with a heavy carbon footprint as far as possible are changes that could easily be made to the curriculum. Trendy recipes could be added to the current curriculum as part of the creative freedom in practical classes. However, creating consistent graduates over the years should be a more important consideration. Finding small-scale farmers who could supply the department with ingredients and enhance sustainability at the same time may not be immediately possible. The bureaucracy imposed by procurement departments at large semi-governmental establishments such as universities could hamper efforts towards such sustainable practices. Pretoria is a city with a vibrant Pan-African community, and on previous occasions, having to procure an Ethiopian Injera platter as an example for students to experience has been hampered by many procurement and logistical barriers. Based on the responses received in this study, there may well be a need to create entirely new weekly menus for the 14 weeks per semester.

The sample believed that it would be easier to master the large volume of work through increased self-study for more accessible themes and group work for more complex ones. Respondents indicated that a single resource would be easier to manage, but that would be unrealistic as graduates are expected to research and review large amounts of information and

critically evaluate each piece for relevancy as it pertains to the workplace. Therefore, a critical review should be done to assess the relevancy and potential benefits of each piece of content. It is possible that extra reading and other materials have accumulated over the years, and irrelevant or duplicate information exists. The learning material should be reviewed and aligned with the credits (hours) allocated to the module.

A need to review the current assessment structure was noted. Respondents requested improved assessment feedback from the module facilitator, which would require more time that is already strained. It is well noted that assessment criteria can be more detailed with specific mark allocations. This would allow students to understand the purpose of each assignment or task. It would be a fairly simple process to employ the expertise of a qualified assessor to review the current assessments within the VDS414 module, as such services are available with the University.

The sample of students indicated they would like more visits to industry establishments and exposure to experts. This could be quickly addressed in a better-suited module called OPI480, which regulates industry work hours (called OPI) and focuses more on real-world exposure and experience. The Culinary Arts module is focused on food and is only one module within the broader degree of BConSci Hospitality Management. Although the focus is on food, not all students become professional chefs, as the degree allows students to seek employment in various food-related managerial careers. The module allows BSc Culinary Science students, who are trained to enter the realm of work between Food Science and Culinary Arts, to have a solid professional cookery background and allow them to enter careers where they will not cook professionally but apply their skills as food technologists, food quality assurers, food product developers, sensory scientists, and others.

LONG TERM IMPROVEMENTS

To increase the amount of content on African Cuisine, it would be necessary to use a textbook written for this exact purpose. Although many researchers, authors and chefs exist in this sphere, no one has written an academic textbook that illustrates the basic and advanced techniques and skills of African cuisines for use at the university level. Writing a context-specific textbook on African Cuisines would be a long-term project.

One change that could be beneficial is increasing the contact time between students and lecturers. This is a long-term process that needs many levels of approval and would have a massive impact on the credit score of the module and the degree.

The research identified the students' request to consult with broader stakeholders and key informants. This will be conducted in the next research phase, where industry employers and prominent stakeholders will be consulted to identify possible gaps in the current curriculum (the situation) and external demands and needs (the response) to prioritise interventions.

A central theme determined in various sections of the results was the need for innovation. A medium-long-term change that has already been approved by the Senate and implemented by the Department of Consumer and Food Sciences has seen this specific module change from fourth year to third year level. It is better suited as a precursor to another food module called Recipe Development, where the focus is on applied knowledge and skills for the purpose of innovation.

FURTHER RESEARCH

The South African Council of Higher Education (Council on Higher Education 2013) aims to develop well-educated and skilled students who can compete effectively within the economy by creating a platform to integrate all higher education qualifications in the National Qualifications Framework (NQF).

Results from this research, using situational analysis to establish enrolled students' perceptions of the Culinary Arts module, were determined by documenting their perceptions of external factors by way of looking inward (adaptations of the current curriculum), along with outward reflections (a second phase of research to establish industry requirements), in order to look forward (curriculum transformation). The findings from this study will be used to guide curriculum transformation and intervention. The findings will be used as the foundation for a second phase study where industry professionals will engage in a rapid assessment to identify gaps within the current curriculum (situation) and external demands and needs (response) from industry.

Potential future research could include the design of a more detailed closed-ended questionnaire with answers developed from this research, including space for further open-ended elaboration answers. The questionnaire could be tested with another cohort of Culinary Arts students or could be applied to similar modules in other South African or emerging economy countries. Finally, a conceptual framework for a continuous curriculum transformation strategy could be developed for the university where the study was conducted as well as other academic institutions.

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