



Cape
Peninsula
University
of Technology

creating futures



Service Learning as Vehicle for community-based research and development in Small-scale fishers along the Western Coast

15 May 2023

Dr Suné Henning

Department of Food Science and Technology
Cape Peninsula University of Technology

VISION
20
30

What is SL and Civic engagement

Service Learning (SL) is a **course-based, credit-bearing** educational experience in which **students participate** in an organized service activity that meets identified **community needs** and reflect on the service activity in such a way as to get further **understanding** of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility.

Civic engagement is where student volunteers participate in a community service project.

- not credit bearing
- civic responsibility

Background on Weskusmandjie

A group of 6 fisherwomen started their own business, named Weskusmandjie (WM). These women are from Steenberg's Cove and St. Henela Bay. They catch fish to sell at the harbour, on the ABALOBI market, as well as for own consumption (i.e. feeding their families).

WM strive to become economically empowered by a king traditional home made and handmade items to sell at markets, restaurants, hotels, bars, tourist.

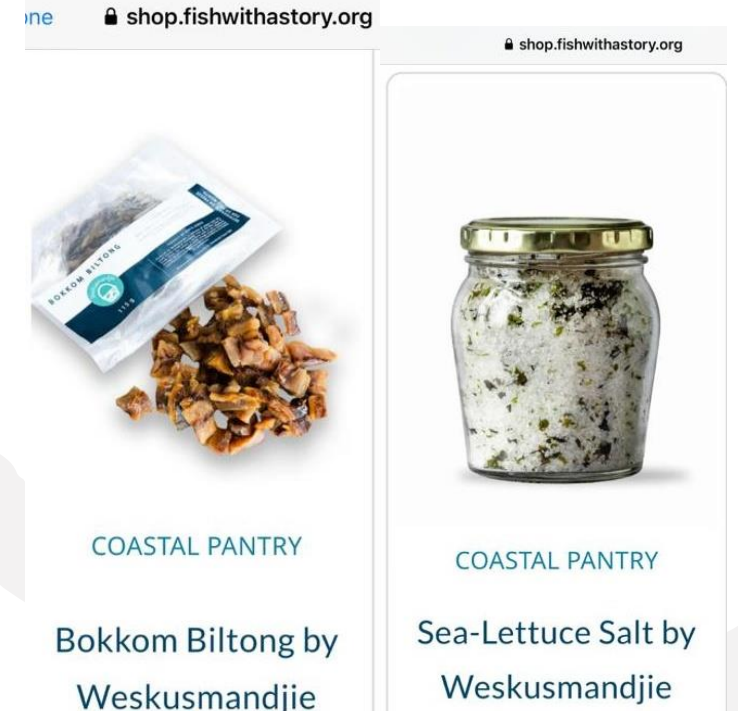
The ocean is the source of raw materials for Weskusmandjie products.

They produce home-made products, such as pickled alekreukel, sour fig jam, curried fish, strawberry jam, dried seaweed-salt, and dried bokkom bites. Some of these products are also sold on the ABALOBI market platform.

For Weskusmandjie to contribute towards poverty reduction and unemployment in South Africa, aligned to the Sustainable Development Goals (SDGs), its future needs to be guaranteed.

Business description and Vision of WM:

WM strive to become a successful business in the next 5 years by making local, unique, traditional items, and To network with stakeholders - academics, municipalities.



Service-Learning projects with Weskusmandjie

- WM approached Dr Suné Henning from DFST in 2019 for basic training in food hygiene and safety
- Several workshops delivered as part of service-learning (SL) projects
- List of **workshops** the Weskusmandjie participated in up until August 2022:

Department of Food Science and Technology – Dr Sune Henning

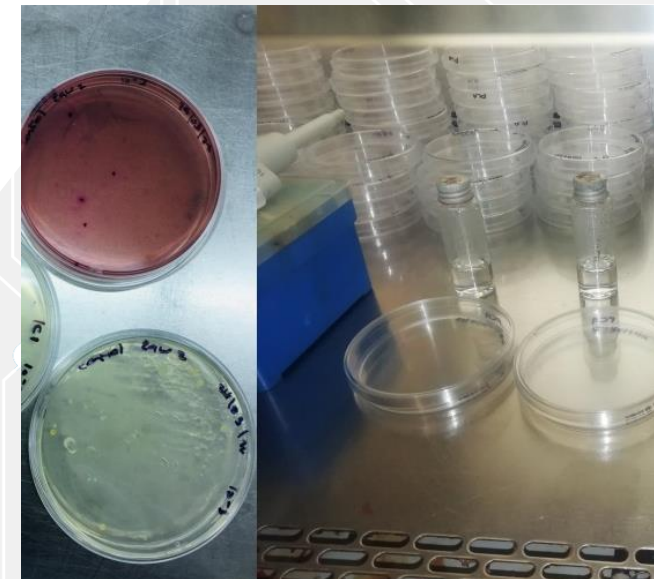
May 2019:	Building coastal product research and development partnerships
August 2019:	Basic hygiene and food safety for fish and fishery products
2020 and 2021:	Quality assurance and good manufacturing practices: food handling, safety, hygiene, cold chain, heating and cooling, product development and packaging
October 2021:	Smoking mussels
September 2022:	Aquaponics workshop

Department of Biotechnology and Consumer Science – Mrs Rache Hanekom

August 2022:	Develop catering knowledge and/or skills to provide an additional income stream
---------------------	---



- Undergraduate students:
 - Group work to complete certain tasks and assignments related to the community need
 - Develop notes and power point slides to be used during training workshops for WM
 - Do presentation in class and to the community
- Post-graduate students:
 - Develop notes and power point slides to be used during training workshops for WM
 - Do presentation to the community during workshops
 - Conduct laboratory analyses of fishery products for WM



Value of SL to student development

- enhanced confidence in public speaking
- get the opportunity to practice communication skills from 1st year level – develop professional practice
- enhance their subject related vocabulary
- show students how all aspects of communication skills are interlinked and integrated into every aspect of academic work
- assisted students to develop time management skills
- engage with subject matter from different subjects (modules) – complex practice
- improving students' meta-cognition (awareness and management of thinking):
Monitoring one's understanding of the task during the activity.
To regulate one's own thought processes in relation to problem solving or completing a task within a goal directed orientation.
Enhance cognitive thinking: i.e. To complete a task, To solve a problem, To learn about a subject, Identify information etc.

Henning, S. (2011). The value of Service Learning as a teaching tool in ECP. *Case studies of Epistemological access in Foundation/Extended Programme studies in South Africa*. Editors: Bozalek, V., Garraway, J. & McKenna, S. Pp. 46-56.

Value of SL to the community

- Address a community need?
- Training and empowerment by providing them with relevant knowledge to address the need?

But then what? – follow-ups? – assist with finding funding for business development? – funding for procuring physical needs (such as ovens, thermometers, laptop)?

- SL has limited funding

Weskusmandjie is eager to enhance their product range and to improve the quality and packaging thereof, with the aim of selling their products at wider market ...

Research based approach

Research project - **NRF/SAASTA, SCIENCE ENGAGEMENT GRANT SUPPORT FOR THE SCIENCE SHOPS DEVELOPMENT PROJECT.**

- **Collaboration with**

Functional Foods Research Unit, Cape Peninsula University of Technology, Prof Maretha Opperman, and Department: Life and Consumer Sciences, University of South Africa (UNISA), Prof Elizabeth Kempen

- **MSc studies**

- **PhD study**

- **Interactive training workshops with WM**

Research questions

Based on the literature reviewed the following research questions are investigated:

Training and execution of business development, and new product development.

How effective has training, provided to Weskusmandjie, been to enhance members' skills and knowledge of business, product development, food safety and the identification of potential products for future business sustainability?

Which novel products will meet the need of the Weskusmandjie taking into consideration their current socio-economic challenges and resource constraints?

Research based approach

- Critical shortcomings threatening their future identified during round table discussions:
 - lack of business skills
 - not fully understanding their consumer base
 - lack of product development skills – indicated their access to mussels for new product development
- Ideas generated during the round table discussions to be incorporated in participatory research and training workshops
- Research and training workshops will address sustainable development goals:



- Aim of this project is to:
 - Augment the Weskusmandjie (WM) members' (1) **training and execution of new product development** and (2) **business skills development** to ensure business sustainability and adaptability, contributing towards poverty alleviation and job creation facilitated through an inclusive community-based research project.

17–20 October 2022

- WM SWOT analysis
- WM Need identification
- WM Training identification

2-4 November 2022

- Customer/Consumer needs study
- Customer behaviour workshop

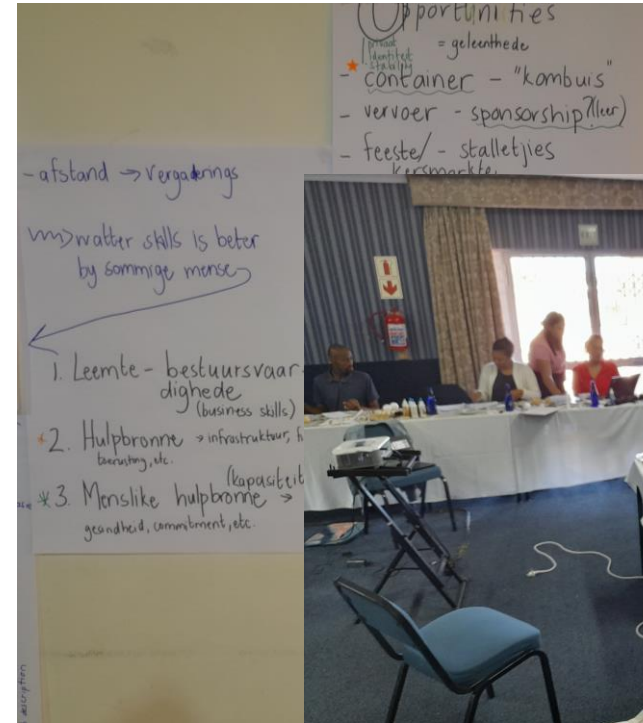
20-22 February 2023

- Arts and crafts
- How to create “sculptures” using seashells

13-16 March 2023

Business training

- Business plan
- Product costing



- 1.1. Table of contents
- 1.2. Executive summary
- To be completed soon

2. Business description

- WM will offer local and traditional homemade, handmade unique products
- the owners are 6 local women

available, we are six fisher women of the fishing town Steenberg's Cove who strive to be economically empowered by a king traditional home made and handmade products for markets, restaurants, hotels, bars, tourist

to be a successful business in the next 5 years by making

in communities, municipalities.

Outcomes and development

- WM started writing, by themselves, their business plan.
- WM identified pickled mussels as product for product development, shelf-life studies, and HACCP training – i.e. a product they want to add to their product range.
- WM identified the potential of a non-food product to be made and sold by WM (seashell “sculptures”).
- WM started to understand the dynamics of a business and what it requires to run a successful business.

- However, continued training and guidance are required before WM will be self-proficient in terms of business skills and product development.

- WM aims to have a HACCP for each of their products within the next two years.



Post-graduate projects:

- Laboratory research and analysis
- HACCP development for kitchen base operations
- Training workshops for WM
- Save and Shelf-stable products
- PhD = develop a model for Community based-service-learning-projects



Thank you

Dr Suné Henning

hennings@cput.ac.za

021 959 6776

Dept. Food Science and Technology