

Design Work (Practice-based)

Graphic + Service + Social Design:

An exploration into using design skills
and methods for social problems.

Leigh Parker

A Guide to the Design Work

This leaflet provides details of the practice-based work submitted with the exegesis. It is an overview guide to the six design work components, which are described in brief and depicted as small illustrations.

The Projects within the Project

A design practical task, including a social project, was used to explore and answer the research question of this thesis. The series of design works, created during the task, form part of the practice-based work. The graphic below shows the concentric structure of the research and lists the design work components.



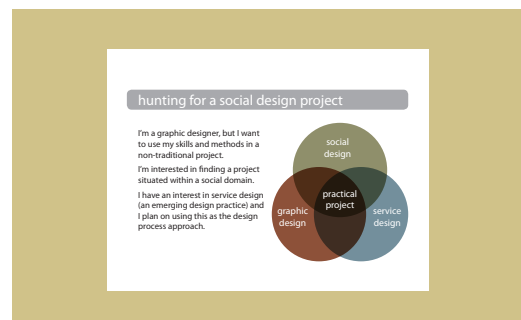
The practice-based work is presented within the same box as this guide. The box contains six individual packages, each one containing the materials that correspond to the six design work components listed.

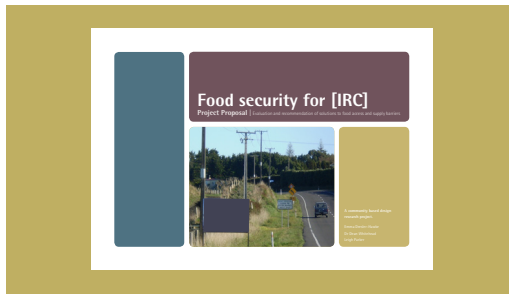
Design Work Components

A | Project Opportunity Visual

Printouts of the digital presentation used during the selection of a social project.

› Discussed in Chapter 3, Section 3.2.2 on page 31.





B Funding Application

A booklet, submitted in combination with a written funding application, at the start of the social project.
 › Discussed in Chapter 3, Section 3.2.3 on page 31.



C Research Tool

The photo journal research tool developed for the qualitative research phase in the social project.
 › Discussed in Chapter 3, section 3.6.3 on page 53.



D Conference Materials

This package contains a poster and a booklet
D1. An A1 poster presented at the New Zealand Dietetic Association Conference.
 › Discussed in Chapter 3, Section 3.5.4 on page 46.
D2. A booklet containing visuals and papers from the ANZMAC 2010 conference presentations.
 › Discussed in Chapter 4, Section 4.4.3 on page 79.



E Design Solution

The 5+ Best Buys System a design solution developed in response to the social project research. This component is the main practise-based outcome.
 › Discussed in Chapter 3, Section 3.7 introduced on page 60.



F Social Design Booklet

An information booklet titled 'Design for goodness sake: Addressing social issues with design skills'.
 › Discussed in Chapter 3, Section 3.7.3 on page 71.



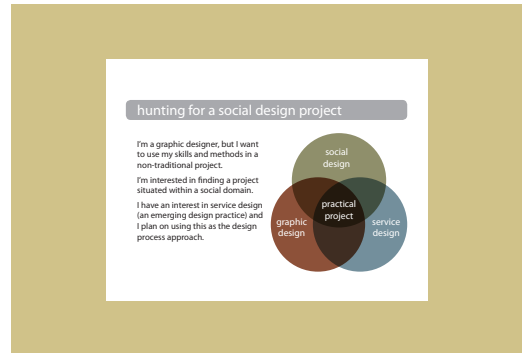
Design Work Project Opportunity Visual

A | Project Opportunity Visual



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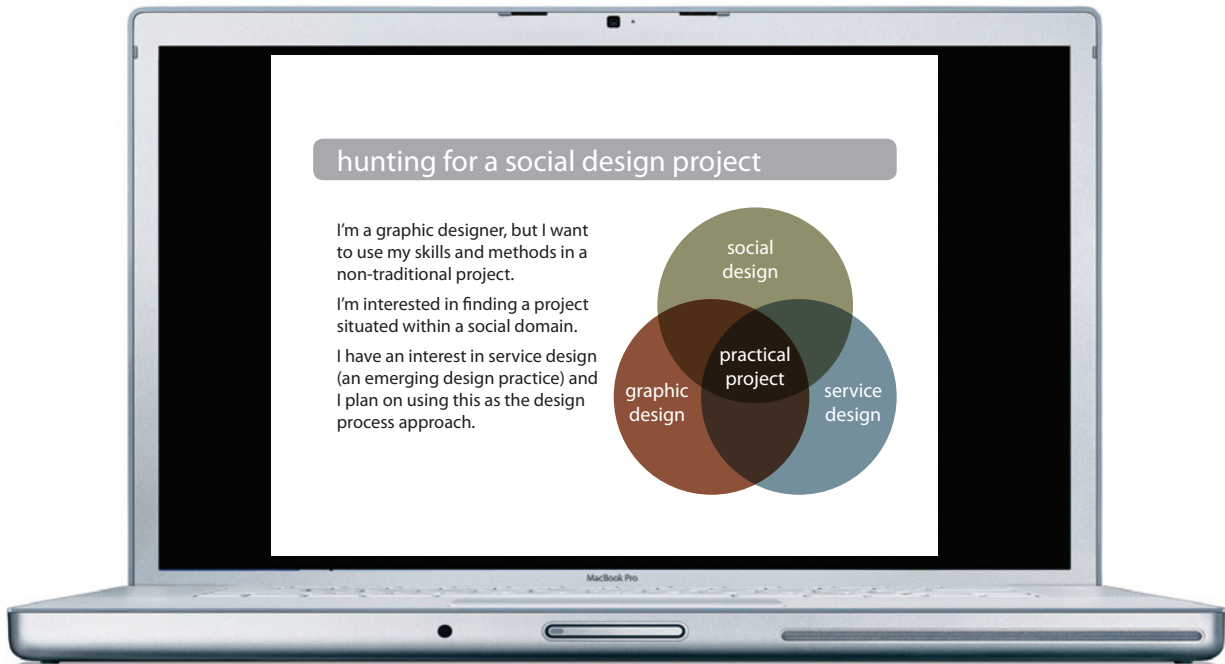




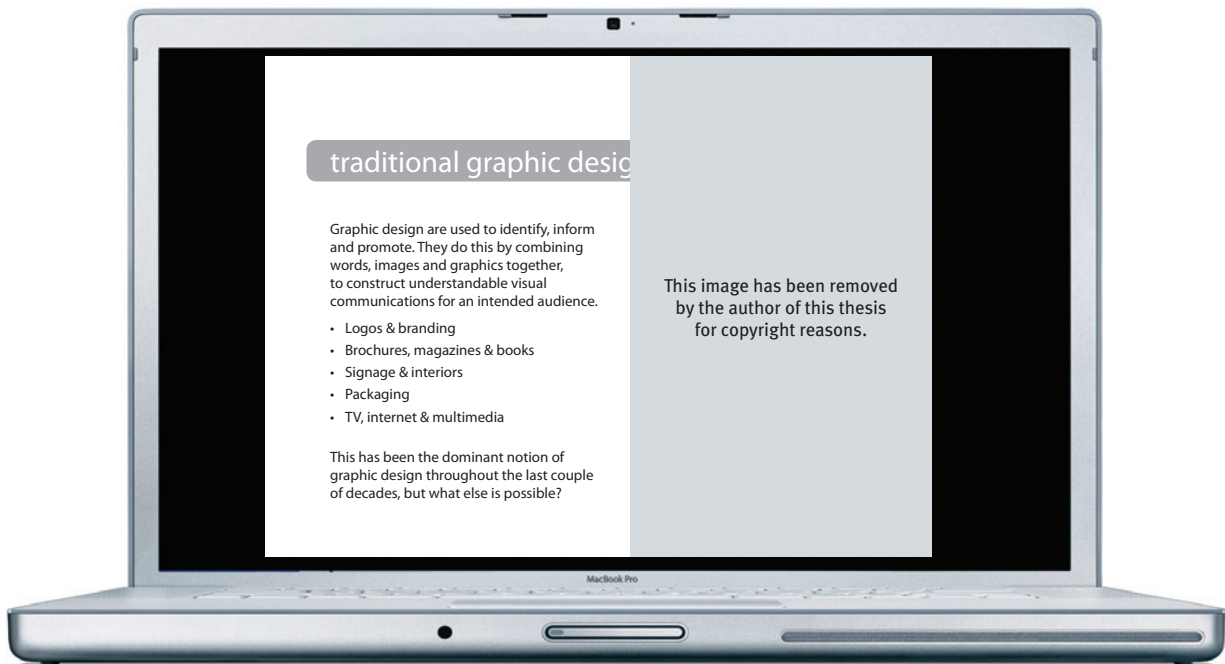
Rethinking design:
An exploration of socially responsible design.

Leigh Parker





Slide 2



Slide 3



a social design agenda

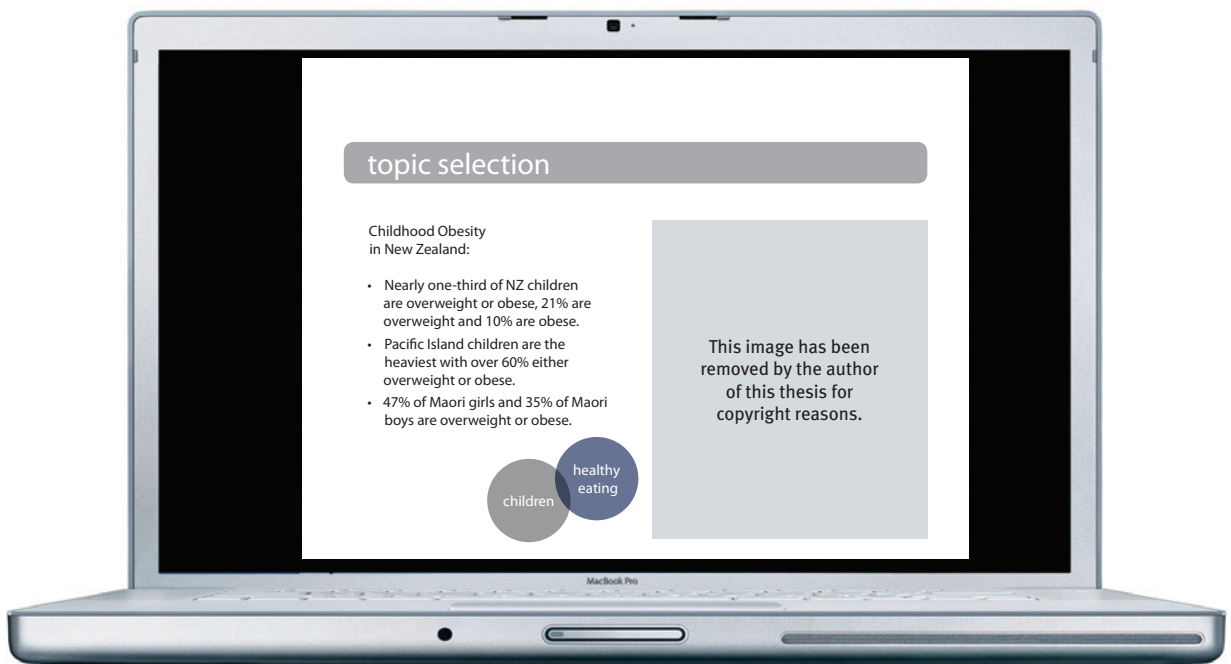
The aim of socially responsible design is to reduce, eliminate or solve problems within social areas such as health, accommodation and crime.

- Architectural design
- Product design
- Service design

Design projects with the purpose of addressing social, environmental, economic and political issues demonstrate valuable contributions to society. Socially Responsible Design expands the contemporary operation of design.

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Slide 4



topic selection

Childhood Obesity in New Zealand:

- Nearly one-third of NZ children are overweight or obese, 21% are overweight and 10% are obese.
- Pacific Island children are the heaviest with over 60% either overweight or obese.
- 47% of Maori girls and 35% of Maori boys are overweight or obese.

children

healthy eating

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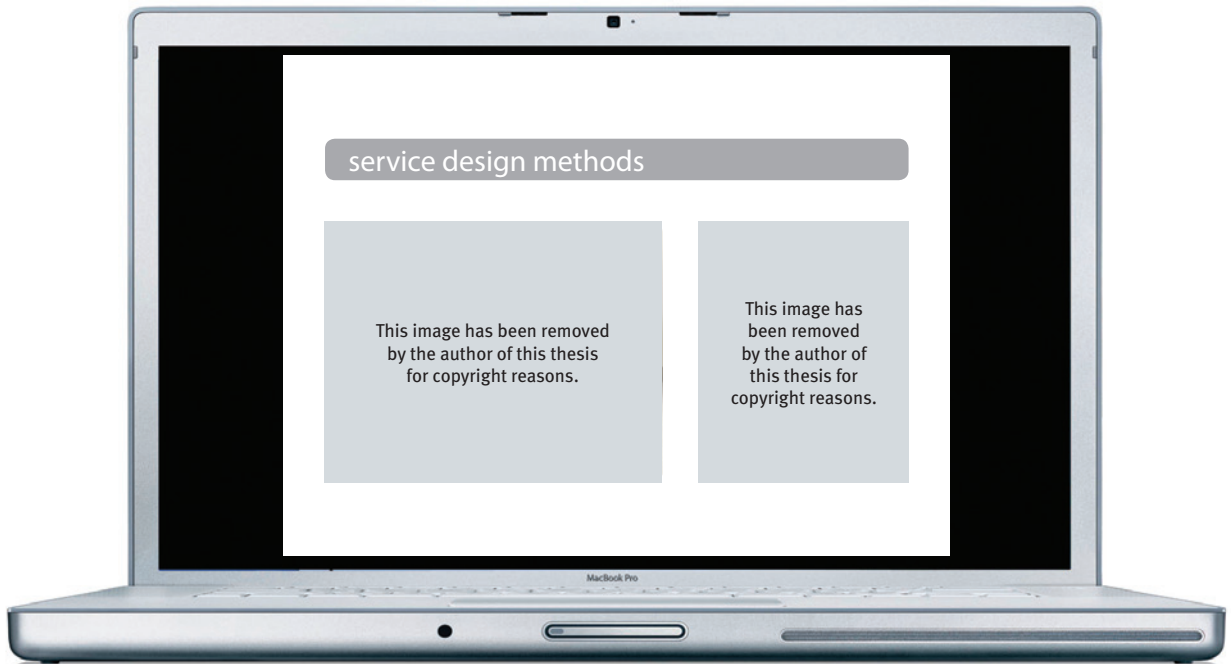
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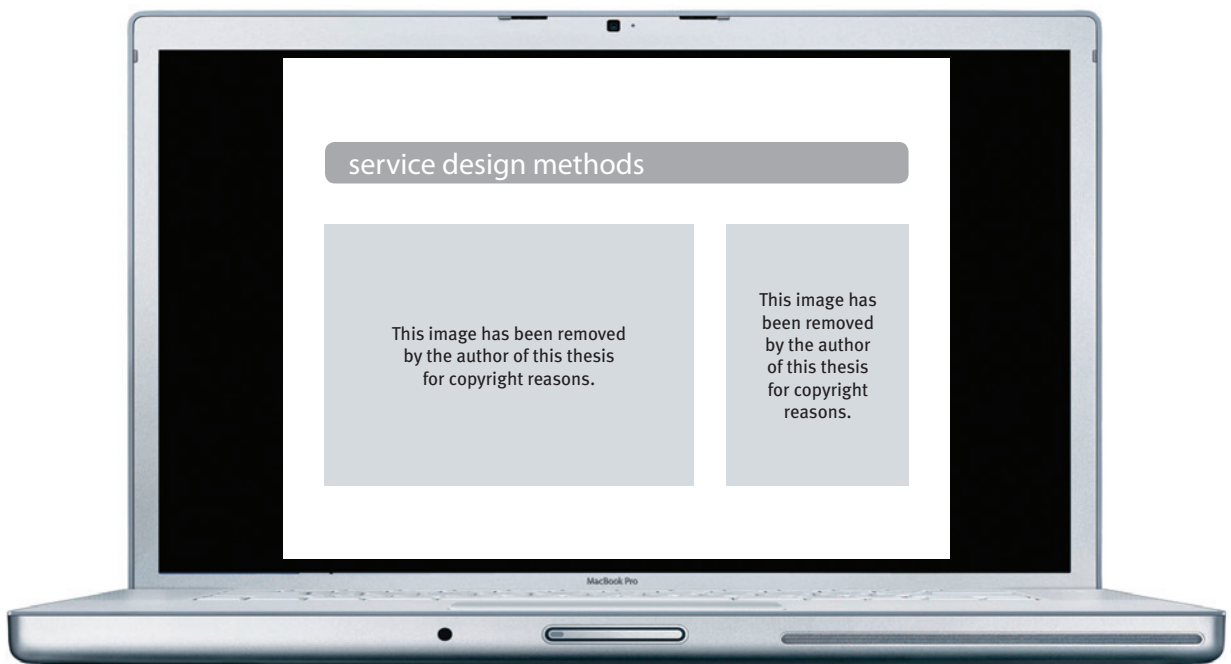
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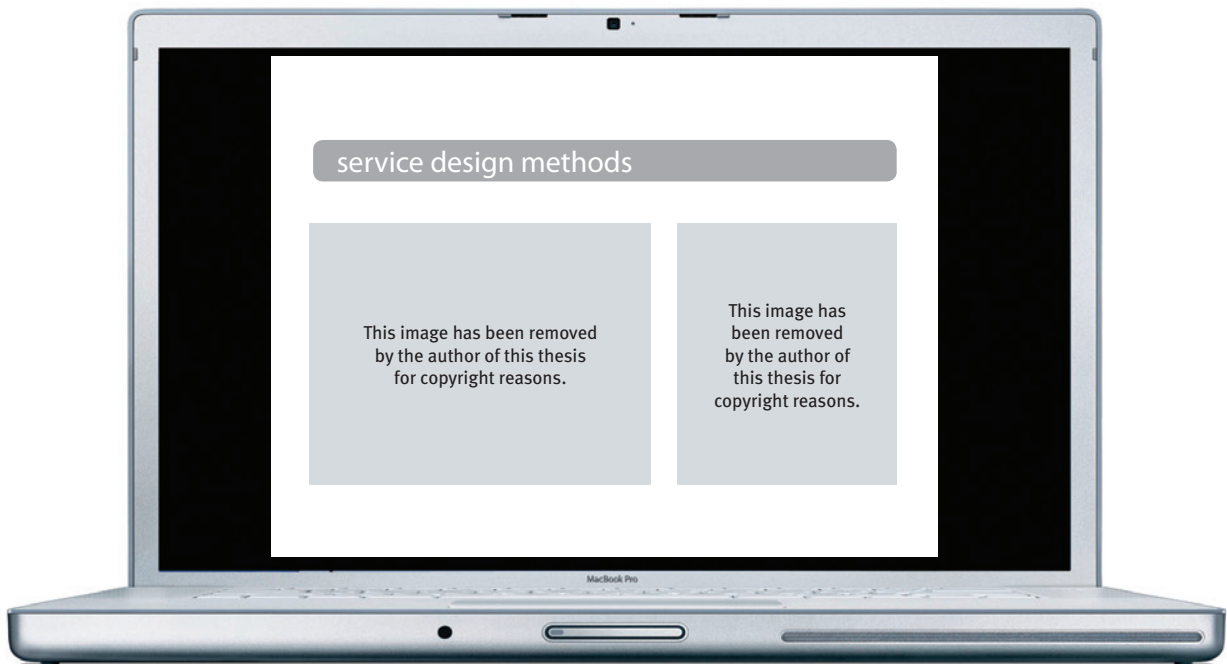
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Slide 9



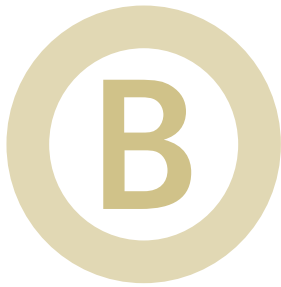
Slide 10



Slide 11



Slide 12



Design Work Funding Application

B Funding Application



A booklet ,submitted in combination with a written funding application, at the start of the social project.

› Discussed in Chapter 3, Section 3.2.3 on page 31.



Food security for [IRC]

Project Proposal | Evaluation and recommendation of solutions to food access and supply barriers



A community based design research project.

Emma Dresler-Hawke
Dr Dean Whitehead
Leigh Parker

research team



Dr Emma Dresler-Hawke

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Emma has a PhD in psychology and worked as a cross-cultural psychologist in Germany, England and New Zealand prior to completing her PhD and joining the Department of Marketing. She is particularly interested in social and cultural influences on food choices and has published research on the image of 'authenticity' in ethnic food, nutritional value of packed lunches in primary school children and the cost of meeting the 5+-A-Day initiative in New Zealand.



Dr Dean Whitehead

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Dean is a prolific researcher and publisher whose main focus lies with his research interests in health promotion and health education theory and practice, health policy, public health and primary health care. Dean's current local research focus lies with several New Zealand-based health promotion projects that are investigating the assessment of childhood nutrition, as they relate to the World Health Organisation's Health-Promoting Schools network.



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Leigh is currently studying towards a Master of Art & Design at AUT in Auckland. She is interested in investigating social design and how design can be used to solve complex social problems. Previous research included questioning the potential of collaborative teaching in business and design within a New Zealand tertiary context.

brief

Title

Food security in the rural community of [IRC]: Evaluation and recommendation of solutions to food access and supply barriers.

Problem

Due to their locality residents of the [IRC] Rural Centre Community face food security issues which create barriers to a healthy nutritious diet.

Focus

The focus of this research project is a needs assessment of food access and food supply for the South Taranaki community of [IRC].










Aim

Investigate the food security needs of the [IRC] community. Include an evaluation the current situation as well as provision of recommendations and solutions to address the specific barriers faced by this community.

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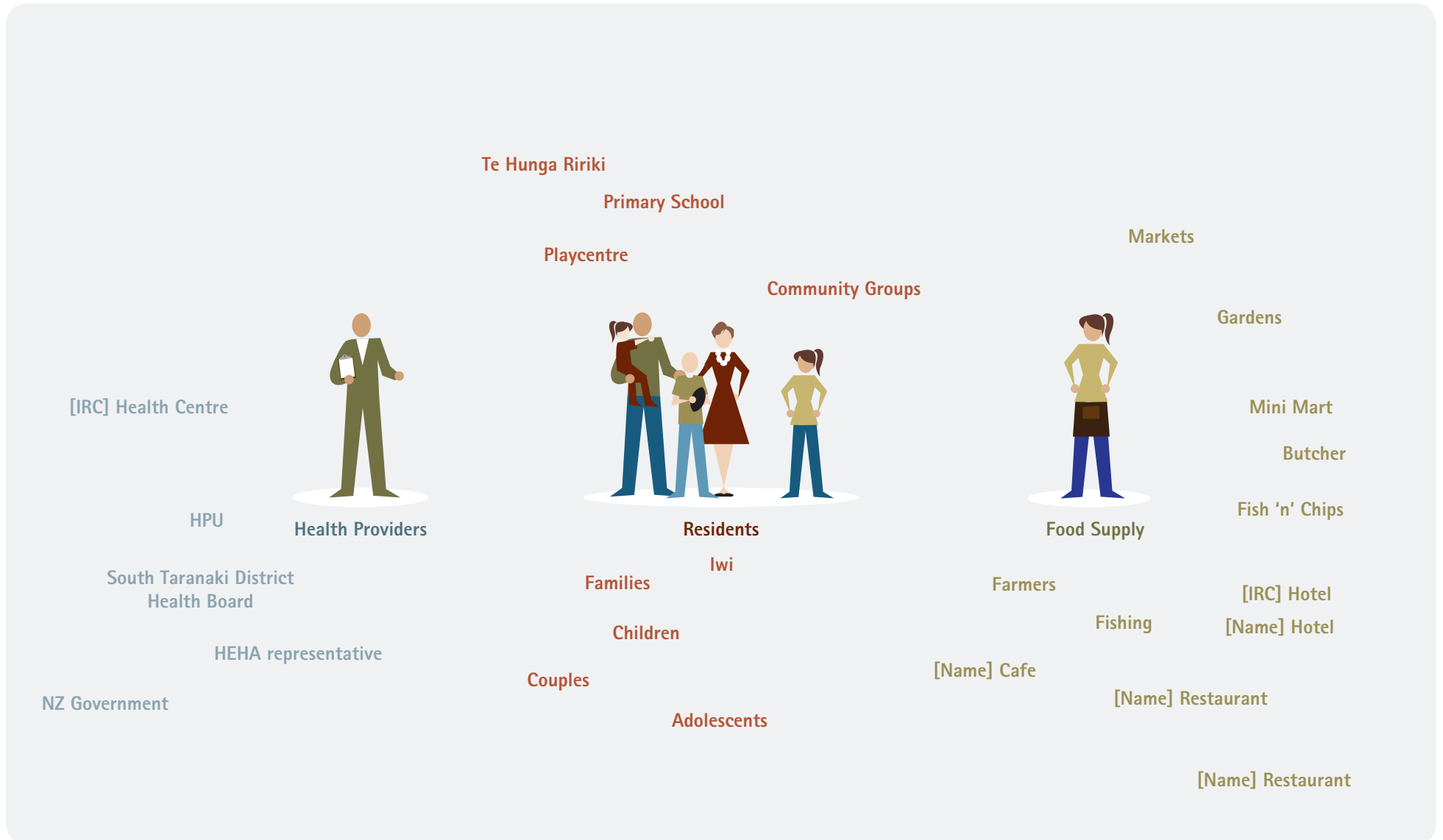


environment

	Garden Site
PC	Playcentre
WPS	Primary School
TKR	Te Kohanga Reo
	Mini Mart
	Butcher
	Dairy
	Hotel
	Restaurant
	Cafe
	Takeaways
	Town Hall



stakeholders



visual stories

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The next few pages show examples of some of the research and design techniques. All examples are from either the Emergency and Evacuation Design Strategy by Design for Democracy AIGA US and University of Illinois in Chicago or the UPMC Presbyterian Hospital Cardiac Catheterization Lab project by students from Carnegie Mellon University in Pittsburgh.

Research technique – Visual stories

A self-documentary technique to that allows participants to frame their experience in response to a protocol.

Participants are given disposable cameras and asked to capture aspects of an experience on film and annotate each photo in a logbook.

In [IRC]

This research technique will be used to engage and connect deeply with the food security barriers that [IRC] individuals or groups face on a regular basis.

service blueprint

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Research technique – Visual stories

Blueprinting is an analysis tool which enables a designer to create a graphical depiction of the service workflow based on the customer experience. It can be used for both innovation and services improvement.

In [IRC]

This research technique will be used to evaluate and depict the supply system of fresh fruit and vegetables in [IRC], including all local suppliers.

personas

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Research technique – Personas

Personas are fictional yet realistic representations of individuals and/or groups and their experiences.

In [IRC]

The personas will be hypothetical profiles of township individuals or groups that illustrate common nutrition practices and summarise the local barriers to healthy eating.

opportunity matrix

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Design technique - Opportunities

This is a documentation of the needs, problems, or processes that are generated by this research. This will be a useful tool for recognising design opportunities and when coupled with strategic and needs drivers, can be used to prioritise the development of new product and/or service offerings.

In [IRC]

The personas and scenarios will be used in the design workshop, the opportunity matrix is the outcome of the workshop session.

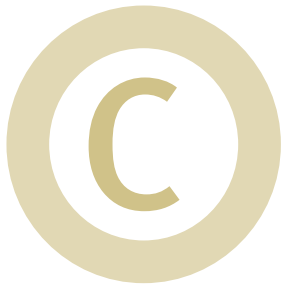
innovation model

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Research Methodology

Designing for complex social problems requires applying design skills in non-traditional ways, requiring a rethinking of design the task and purpose.

The approach we will use for innovation moves from “what is” models, to what the service experience might be “like” models.



Design Work Research Tool

C | Research Tool



The photo journal research tool developed for the qualitative research phase in the social project.

› Discussed in Chapter 3, section 3.6.3 on page 53.

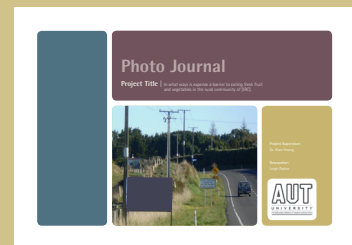


Photo Journal

Project Title | In what ways is expense a barrier to eating fresh fruit and vegetables in the rural community of [IRC].



Project Supervisor:
Dr. Alan Young

Researcher:
Leigh Parker

AUT
UNIVERSITY
TE WĀNANGA ARONUI O TAMAKI MAKAU RAU

contact



Leigh Parker

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I am currently studying towards a Master of Art & Design at AUT in Auckland. I am interested in investigating social design and how design can be used to solve complex social problems.

Approved by the Auckland University of Technology Ethics Committee on 13th August 2009, AUTEK Reference number 09/71.

introduction

Thank you for agreeing to participate in this research.

A photo journal is a research technique used in social science to gather data from informed sources. Your answers to the questions will not be considered "right" or "wrong". Answers are merely information that you will supply based on your experiences, observations, or feelings. I am working with a community group that wants to understand if the community requires alternative of improved food resources. Please be assured that all your responses are confidential and will be used for research purposes only. Any summary reports will make no references to names.

- The purpose of this research project is understand through words and pictures...
 1. What you think about expense as a barrier (what issues exist and what experiences have you been through),
 2. What you do or have done during your experiences (real and imagined reactions), and
 3. What objects and communication tools you have or would have found useful during those experiences.
- The purpose of your journal is to allow you to describe in detail your thoughts and ideas about expense as a barrier to healthy eating. The camera is for you to take pictures so that I can see what you are talking about.
- This research will be used to help develop community solutions that help solve, eliminate or reduce the barrier of expense which hinders residents from your community in accessing fresh fruit and vegetable. Initially the research will help me create fictional profiles of residents who experience expense as a barrier and then models of what they experience. Then I will come up with designs that can help.
- So answer the questions as fully as possible. Feel free to cut out pictures from magazines, draw, as well as take photos. Please include the photo number next to your description. Thank you for agreeing to help me with this project.

Section 1: About you and your family

1. What are your first names and how old is everyone? (take picture)

eg. John (35), Jenny (32), etc

2. What ethnic group do you feel you belong to?

eg. Maori, European, etc

3. What languages do you speak?

eg. Maori, English, etc

4. Adult(s). What education/training have you had?

eg. High School, Polytech, etc

1. Take a photo of the family.

Photo number: _____

Section 1: About you and your family

5. Where do you live? In what kind of building? (take picture)

Provide a small description of your home.

5. Take a picture of your home.

Photo number: _____

6. Take picture of you having fun.

Photo number: _____

6. What does your family do for fun? (take picture)

eg. Watching TV, playing sport, etc

Section 1: About you and your family

7. How would you describe your neighbourhood?

8. Why do you like/dislike the place you live ([IRC])? (take picture)

8. Take picture of the [IRC].

Photo number: _____

9. Adult(s). How would you describe your job (occupation/income/etc)?

10. If you were to tell someone about what kind of people you are, what 5 words would you use? Why?

1. _____ because. _____

2. _____ because. _____

3. _____ because. _____

4. _____ because. _____

5. _____ because. _____

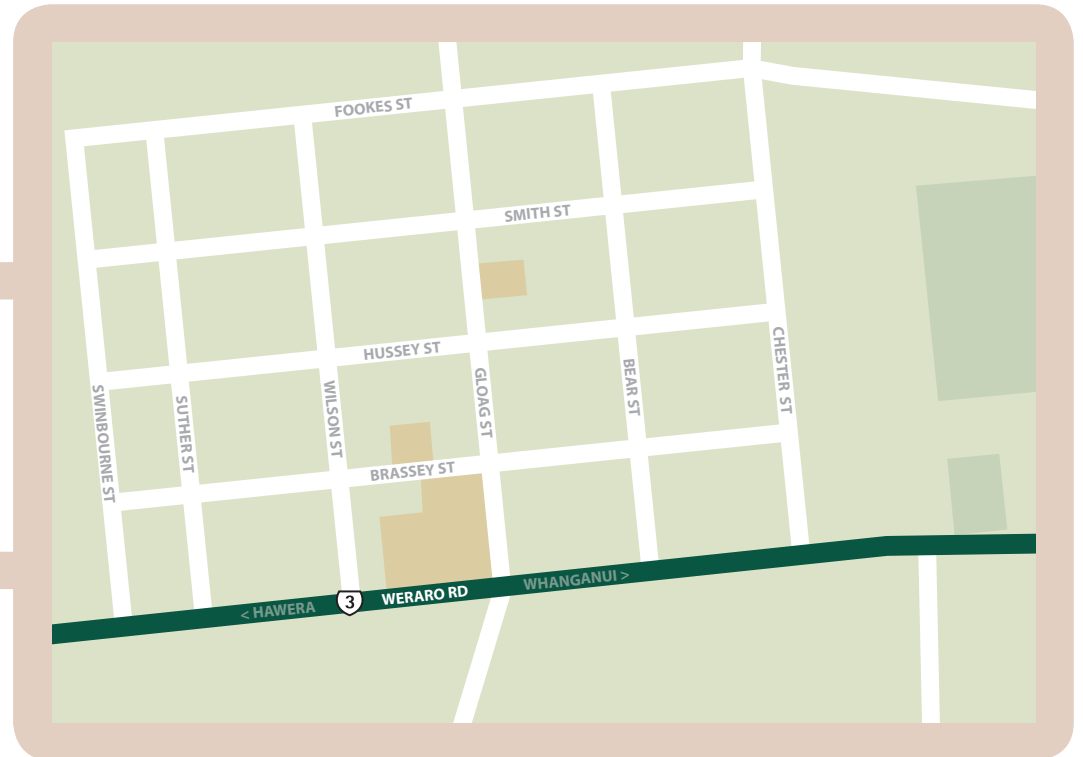
Section 2: About access to fresh fruit and vegetables

There are many different places you can get fresh fruit and vegetable from – large supermarkets, medium or small neighborhood grocery stores, home gardens, at school, road side stall and farmers markets. I would like to find out about the types of places you visit for your fresh fruit and vegetables.

11. Where do you go to get fresh fruit and vegetable in [IRC]?

Draw on the map provided

- Shops in [IRC]
- Stalls or markets in [IRC]
- Friends/neighbours home gardens, including fruit trees
- Other places (eg. Fruit in Schools)



12. Where else do you go to get fresh fruit and vegetable?

eg. Pak n Save Hawera

Section 2: About access to fresh fruit and vegetables

13. Name one place that you get fresh fruit and vegetables from.
(take picture)

14. Tell me in detail about this place.

15. Why do you get fresh fruit and vegetable from here?

13. Take picture of the place.

Photo number: _____

Section 2: About access to fresh fruit and vegetables

16. How expensive is this?

16. Please stick on a receipt or list
here from a recent visit to this service.

17. How do you get to the shop and back? (take picture)

eg. Walking, by car, bus service, etc

17. Take picture of the transport.

Photo number: _____

Section 2: About access to fresh fruit and vegetables

18. Name a second place that you get fresh fruit and vegetables from.
(take picture)

19. Tell me in detail about this place.

20. Why do you get fresh fruit and vegetable from here?

18. Take picture of the place.

Photo number: _____

Section 2: About access to fresh fruit and vegetables

21. How expensive is this?

21. Please stick on a receipt or list here from a recent visit to this service.

22. How do you get to the shop and back? (take picture)

eg. Walking, by car, bus service, etc

22. Take picture of the transport.

Photo number: _____

Section 2: About access to fresh fruit and vegetables

(This page is for a child to fill in)


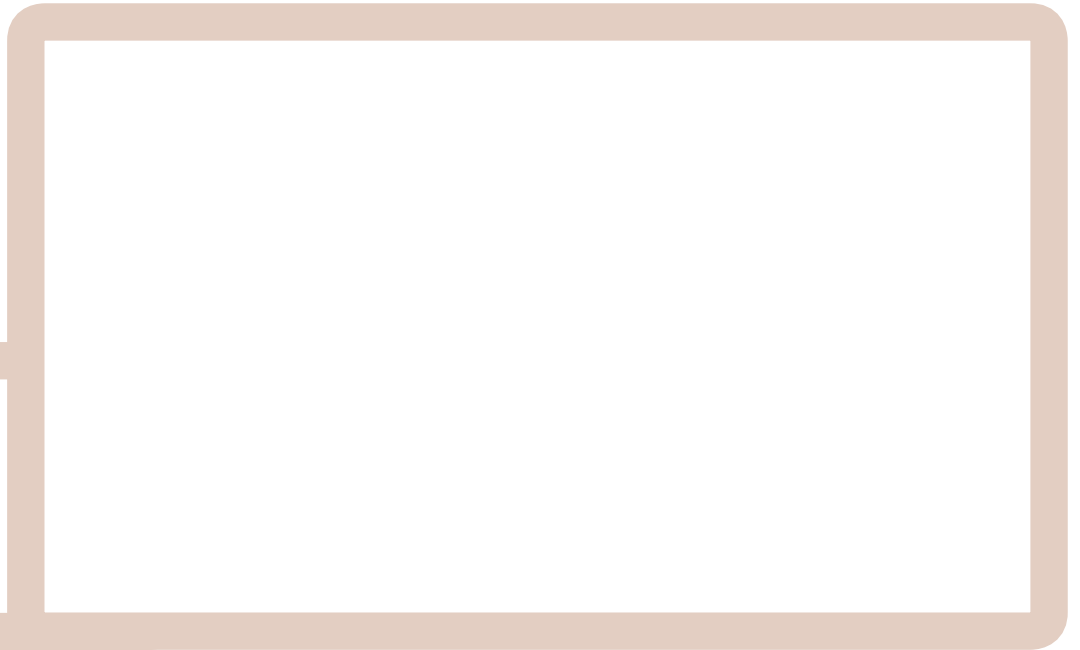
23. Where does your family get or buy fresh fruit and vegetables?

24. Tell me about this place.

25. What fruit and vegetables do you get? (draw pictures)

26. How much does it cost?

27. How do you get to this place? (draw pictures)



Section 2: About access to fresh fruit and vegetables

28. Are you satisfied with the stores you use most frequently?

eg. Quality of produce, service, location, cleanliness, cost, variety, etc.

29. The best fresh fruit and vegetable service is... because...

eg. The Dairy, because it is...

30. The worst fresh fruit and vegetable service is... because...

eg. The Dairy, because it is...

31. Which services make it difficult to buy fresh fruit and vegetable?

Why is it difficult?

Section 2: About access to fresh fruit and vegetables

32. Where do you store fresh fruit and vegetables in your house?
(take picture)

32. Take a picture of the
stored fruit or vegetables.

Photo number: _____

33. Take picture of cooking.

Photo number: _____

33. If your family does cook, who does the cooking and where?
(take picture)

Section 2: About access to fresh fruit and vegetables

34. Are there any fresh fruit and vegetables you buy in bulk?

eg. Potato, kumera, tomatoes, apples, etc.

35. Does your family grow your own food in a garden or fish or hunt for your food? Why/why not?

36. Are there community gardens in your part of town? Do you use this garden? Why/why not?

37. Do you regularly get food at no cost from neighbors or others you know who grow or hunt their own food?

38. Are there farmers' markets in your community? Do you ever go to a farmers' market to buy food? Why/why not?

39. Do you feel fresh fruit and vegetable supplies could be enhanced within your community? How?

Section 3: About expense as a barrier to healthy eating

40. Tell me in your words what the word barrier means.

41. Tell me in your words what you define as being expensive as far as food goes; feel free to provide examples to help me understand.

42. What do you think are major and minor factors that contribute to expense as a barrier? Please list

1. _____

2. _____

3. _____

4. _____

5. _____

43. Take a picture of a barrier

Photo number: _____

43. What do you currently do to overcome these barriers? (take picture)

Section 3: About expense as a barrier to healthy eating

44. Complete this statement. When it comes to feeding the family 'value for money' is...

45. The qualities that are most important to us in fresh fruit and vegetable are (price, variety, quantity, etc)... because...

46. Have you gone looking for help or guidance in order to help overcome expense as a barrier?

Where did you go?

What did you look at?

Who did you talk too?

Section 4: About risk

47. What are some of the risks you have experienced when getting or using fresh fruit and vegetables?

eg. Food going off, not having enough time, covered in chemicals, etc.

48. How could some of these risks be reduced or eliminated?

49. What tools or information would be useful to help you?
(take picture if appropriate)

49. Take a picture of a tool

Photo number: _____

Section 5: About knowledge

50. Please tell me about the families knowledge of the following...

a. Budgeting skills

eg. Do you have a budget? Who looks after the budget? Tell me about it.

b. Gardening

eg. Does anyone have fruit & vegetable growing skills? Tell me about your garden.

c. Cooking

eg. What do you know about cooking fresh fruit and vegetables?

d. Taste in food

eg. What foods do you like and dislike?

Section 6: Ideal situation

51. In this section you will record the food eaten by the family on a typical day, the food you normally eat (including food items consumed away from home). On the next page there is space for you to provide thoughts on what an ideal or perfect day would be like, don't worrying about things like cost or cooking.

On a typical day the food we eat includes...		
	Adults	Children
Breakfast		
Morning tea		
Lunch		
Afternoon tea		
Dinner		
Other		

Section 6: Ideal situation

The perfect day (not worrying about cost, cooking, etc) what we would most want to eat would be...		
	Adults	Children
Breakfast		
Morning tea		
Lunch		
Afternoon tea		
Dinner		
Other		

Section 7: Finishing up

53. What are the key three thoughts that I should take away from my talk with you about expense as a barrier to healthy eating as experienced by families who live in rural communities?

1. _____

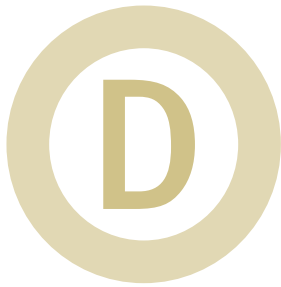
2. _____

3. _____

54. Is there anything that we have not addressed that you feel I should know?

Is there anything else you would like to show me?
Tell me about this photo

Photo number: _____



Design Work Conference Materials

D | Conference Materials



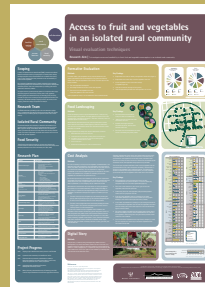
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D1. An A1 poster presented at the New Zealand Dietetic Association Conference.

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D2. A booklet containing visuals and papers from the ANZMAC 2010 conference presentations.

› *Discussed in Chapter 4, Section 4.4.3 on page 79.*



D1



D2



Food security in an isolated rural community

Visual evaluation techniques

Research Aim | To investigate access and availability to fresh fruit and vegetable consumption in an isolated rural community.

Research Team

The Taranaki District Health Board [TDHB] established a gardening project with local education settings. Since, a multifactorial approach has been developed with Massey University [MU] and Auckland University of Technology [AUT] to explore the wider issues of food security.

Isolated Rural Community

The selected isolated rural community is situated on the border of two regional districts. Population is just less than 900 and made up of 30.5% Māori (regional average 15.8% Māori). Median income is \$15,600 per annum. The community contains a Primary School & two early childcare centres. The nearest supermarket 30 minutes drive and two out of ten local retailers sell fruit and vegetables.

Food Security

"Food Security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet dietary needs and food preferences for an active and healthy life" (FAO, 1996).

5+-A-Day Programme

In 1994, to encourage increased public awareness of the importance of fruit and vegetables in the diet, United Fresh promoted a daily intake minimum of five portions, this meant most New Zealanders should consume a minimum of two servings of fruits and three servings of vegetables per day thus giving rise to the slogan '5+-A-DAY'. New Zealand is one of 18 countries globally that has a nationwide 5+-A-DAY campaign. 5+-A-DAY initiative has been promoted in supermarkets, on packaging, on buses, on television and radio, magazines, and in newspapers (5+-A-Day, n.d.).

Scoping

In 2005, the TDHB commissioned a 'Maori Nutrition and Physical Activity Scoping Project' to identify issues and key messages promoted. A key recommendation was to address food security issues in rural Taranaki, particularly around the access and availability of fresh fruit and vegetables.

Key community stakeholders from a suitable community were consulted. Consequently gardens were established at the local Playcentre, Kōhanga Reo and Primary School. These were made possible by a funding grant and an enthusiastic community member.

The project has now grown beyond the gardens to incorporate other supply and access aspects of food security. This has been a result of MU and AUT becoming involved. The project now includes pre and post programme evaluation with community, commercial landscape mapping exercise, case studies, service mapping, information design critique and cost analysis.

Research Plan

Project	Objectives
Education Garden Project	<ul style="list-style-type: none"> Increase 'how to grow' knowledge Increase knowledge of fresh fruit and vegetable varieties Increase consumption benefits knowledge Reduce access barriers Increase consumption
Evaluation (pre/post questionnaires)	<ul style="list-style-type: none"> Assess the effectiveness of the Education Gardens Project Record initial and subsequent knowledge of the following: <ul style="list-style-type: none"> Knowledge of types Likes and dislikes Levels of consumption Awareness of healthy eating Access (shops vs home gardens)
Mapping (commercial landscape)	<ul style="list-style-type: none"> Recording food advertising and litter items within a 500 metres radius of the Primary School
Case Studies (Interviews & photo journals)	<ul style="list-style-type: none"> Generate a qualitative understanding of expense as barrier from the resident's perspective Generate a qualitative understanding of consumer behaviour relating to perceived risks associated with fruit & vegetable consumption
Service Mapping (Blueprinting)	<ul style="list-style-type: none"> To generate an understanding of fresh fruit & vegetable availability, services and access within the isolated Rural Community Visually represent all the isolated rural community fresh fruit and vegetable services Reveal the underlying support processes and connections
Information Design Critique	<ul style="list-style-type: none"> To evaluate the current design solutions used within the isolated Rural Community community relating to improving access and availability of fresh fruit and vegetables
Cost Analysis	<ul style="list-style-type: none"> To conduct market research on the price, and seasonal variation of prices, of available selected fresh and processed fruit and vegetables in order to determine the daily cost of meeting the 5+-A-Day initiative in the isolated Rural Community
Digital Story	<ul style="list-style-type: none"> Create a digital presentation that communicates the findings of the isolated Rural Community Research back to the community Tell the 'story of this garden' from the perspective of those involved in the project
Media	<ul style="list-style-type: none"> Consistent messages to support healthy choices Promote project and healthy choices via local newspaper, notice boards, retailers
Cooking & Gardening Workshops	<ul style="list-style-type: none"> Knowledge, skills and access to fruit & vegetable
Publications	<ul style="list-style-type: none"> Awareness of project by other health professionals & academics
Co-Design Session	<ul style="list-style-type: none"> Design product/service design solutions
Funding Applications	<ul style="list-style-type: none"> Gain funding to refund a percentage of the research costs

Project Progress

- 2005 Scoping project identified food security issues in rural Taranaki.
- 2006 A potential rural community site identified for action.
- 2007 Consulted with key community stakeholders to establish community gardens in the local Primary School. Local Primary School also joined the Fruit in School programme.
- 2008 Vegetable gardens established at Playcentre, Kōhanga Reo & Primary School.
- 2009 Massey University and Auckland University of Technology involved. Project broadened to include food supply and accessibility.

Formative Evaluation

Methods

In October 2008, a pre-programme survey was conducted with the parents and children from the Kōhanga Reo, Play Centre and Primary School. There were 22 respondents to this survey. The main topics of the survey included...

- Fruit and vegetable consumption
- Knowledge of different varieties of fruit and vegetable
- Sources of fruit and vegetables included if they had gardens or fruit trees at home

A post-programme survey is to be conducted in Term 4 (October 2009).

Key Findings

- Respondents were able to identify 39 vegetables and 29 fruit
- Respondents were more likely to dislike vegetables than fruit
- 41% of respondents ate at least three servings of vegetable per day
- 72% ate at least two servings of fruit per day
- 79% of respondents purchase fruit and vegetables out of town

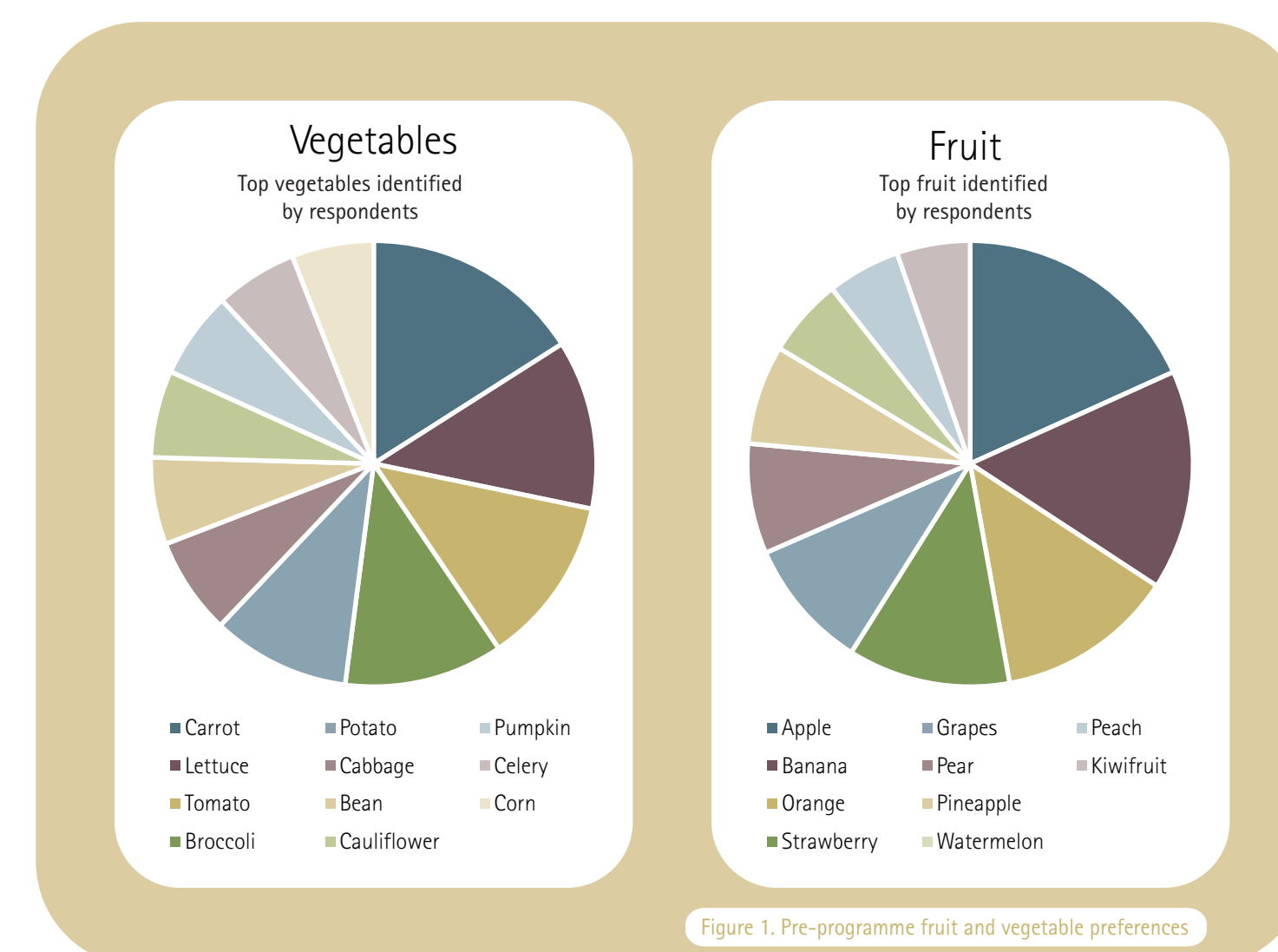


Figure 1. Pre-programme fruit and vegetable preferences

Food Landscaping

Methods

A Food Landscaping exercise was conducted based on a study by Kelly, Cretikos, Rogers & King (2008). This highlighted the impact of the wider environment on consumers food choices. Promotion of healthy food is an important aspects of food security.

Advertisements and food-related litter recorded within a 500m radius from the local Primary School. Food was classified as core, non-core or miscellaneous drinks (tea and coffee) based on criteria from Kelly et al (2008).

A coding schedule was designed to capture data details as follows:

- Advertisement type (food or non-food product)
- Food-related litter type (core or non-core)
- A description of the item found, including product and brand name (<250 m or 250-500 m from the school)
- The size of the item
- Location of item (shopping area, main or residential street)

Key Findings

- Food related litter accounted for nearly all (92%) of recorded data
- Majority (91.5%) of food items were classified as non-core
- Alcoholic beverages (23%) and confectionary (23%) were the most common food items
- Food items were concentrated at the street corners surrounding the primary school

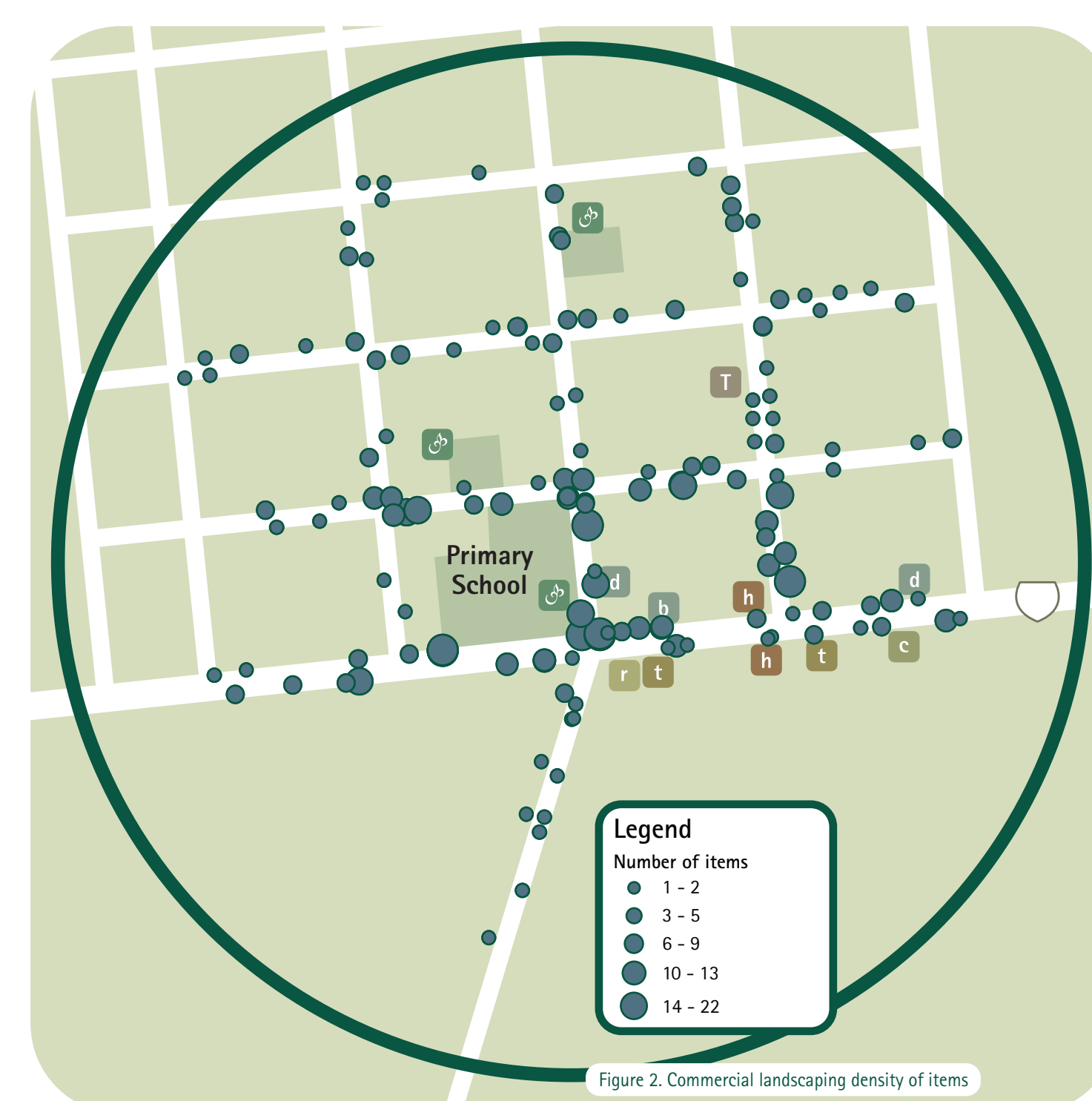


Figure 2. Commercial landscaping density of items

Cost Analysis

Methods

To determine the cost of meeting the objective of a minimum daily intake of two servings of fruit and three servings of vegetables, one wave of data collection was conducted in the sixth week in winter (in July 2009) in the isolated rural town. In this town there were two small stores supplying fruit and vegetables. The data picture was intended to be a 'snapshot' to capture the prices and availability of fruit and vegetables to the consumers of this particular rural community.

In measuring the servings of fruit and vegetables, the recommended daily intake of 80g (total 400g) of fresh, frozen, or canned fruit and vegetables and 30g of dried fruit promoted by the World Health Organization was adopted (World Health Organization, 2003). To establish the price unit/80g and unit/30g, two different strategies were applied:

- The items sold on price per kilogram were converted by dividing the price by 1000 to give price per 1g, and then multiplied by 80 for fresh, frozen, or canned products or 30 for dried products.
- The items sold on weight basis were converted by dividing the actual weight in grams and multiplying by 80 for fresh, frozen, or canned products or 30 for dried products.

There were several forms of foods excluded from the assessment. The fruit and vegetables were restricted to the most common fresh fruit and vegetables, excluding exotic items such as bok choy, guavas, and lychees. In line with other studies examining fruit and vegetable intakes, potatoes and other related root vegetables (considered as 'starchy' food), tomatoes (in ketchup), and fruit (in sauces) were excluded and not assessed as part of the total daily intake (Giskes, Turrell, Patterson & Newman (2002); Roos, Johansson, Kasmel, Klumbiene & Prattälä (2000)). It should be noted that New Zealand 5+-A-Day campaigns include promotion of potatoes and kumara whereas other countries usually exclude these.

To determine whether fresh fruit and vegetables are more expensive than processed, this study compared prices for 29 fruits and 30 vegetables for which prices were available for both fresh and processed forms. For comparison, the fresh fruit and vegetables were matched with their plain, unsweetened, unflavoured, processed counterparts. It is noteworthy that processed fruit and vegetables are not promoted as part of the 5+-A-Day in New Zealand.

In the final analysis, there were 40 different fresh fruit and vegetables and 60 processed fruit and vegetables recorded. Among the processed fruits and vegetables, there were 18 frozen, 17 dried, and 25 canned fruit and vegetables selected from 18 different brands.

Key Findings

There was a wide variation in prices for fruit and vegetables both in fresh and processed forms between the three stores. Overall, fresh fruit and vegetables were least expensive at the Urban Supermarket, with fruit prices ranging from \$0.08 per serving for Kiwifruit to \$0.64 per serving for Grapes. The vegetables ranged from \$0.08 per serving for Carrots to \$1.92 per serving for Cherry Tomatoes. Only 4 fruits (Mandarins, Nectarines, Grapes, Tamarillo) and 10 vegetables (Avocado, Broccoli, Capsicum, Cherry Tomatoes, Corn, Cucumber, Lettuce, Radish, Spinach, Watercress) cost more than the weighted average price (fruit \$0.29, vegetable \$0.54).

The total average cost of meeting the Fresh 5+-A-Day initiative with in the selected stores ranged from \$2.06 to \$2.61 per person. There was significant difference in the price of fresh fruit and vegetables between the Urban Supermarket and the Rural Mini Mart (T-test = 0.045). Figure 3 shows the cost of meeting the 5+-A-Day from the food stores with the Urban Supermarket being the cheapest.

Furthermore, research indicated that fresh, frozen, and canned foods are nutritionally comparable (Breene, 1994), so with the inclusion of selected items of processed fruit and vegetables into the daily intake, consumers could meet the 5+-A-Day initiative for even less \$1.80 per person and not feel constrained by the limitations of fruit and vegetables being expensive or perishable.

Travel

Methods

The distance was measured from the isolated rural community to the two closest towns in either direction. Both towns have large Supermarkets. Petrol prices were recorded from the same week that the Cost Analysis data was recorded.

Key Findings

- The average distance to a large town with a Supermarket was 43.8km
- Unleaded 91 petrol was priced at \$1.69 per litre
- A return trip to the Supermarket in a car that averages 10lt/100km would cost \$14.80

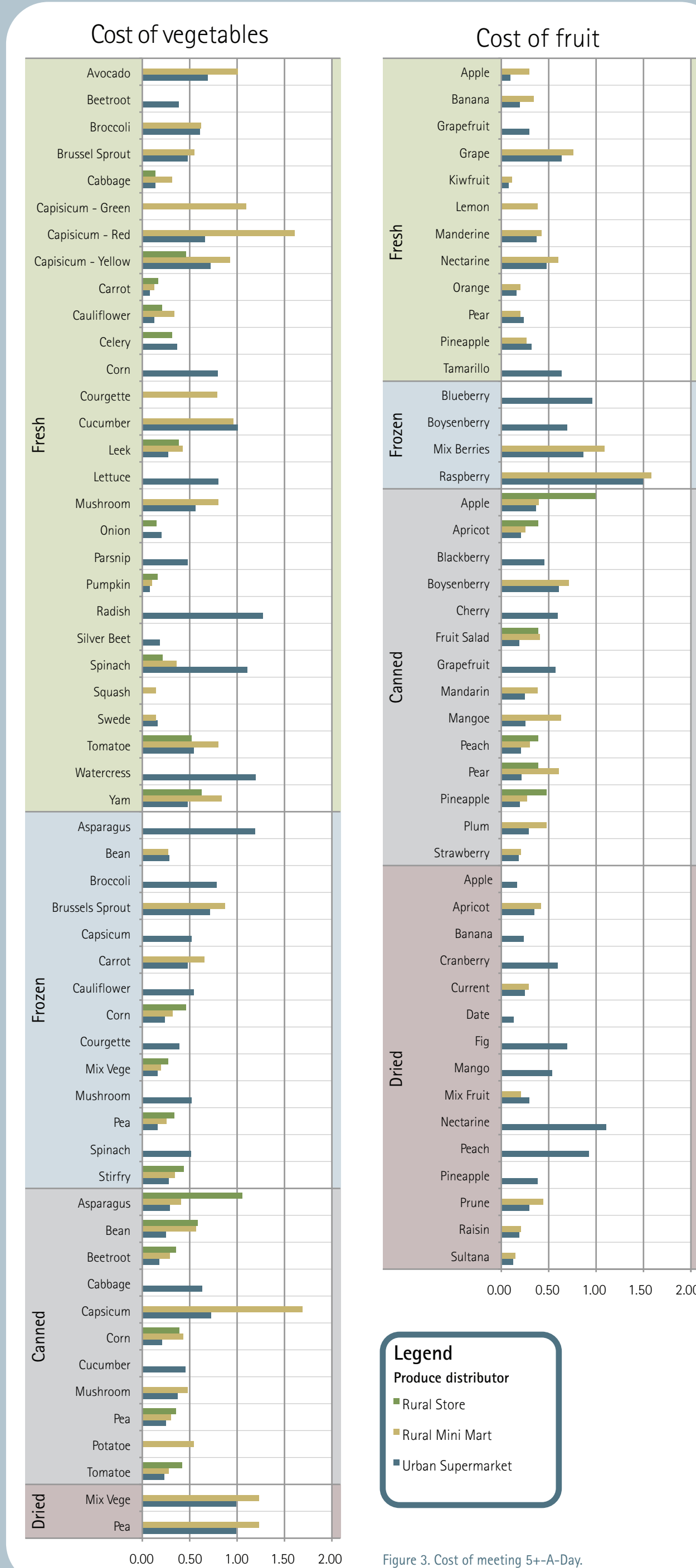


Figure 3. Cost of meeting 5+-A-Day

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Access to fruit and vegetables in an isolated rural community

Visual evaluation techniques

Research Aim | To investigate access and availability to fresh fruit and vegetable consumption in an isolated rural community.

Scoping

In 2005, the Taranaki District Health Board [TDHB] commissioned a 'Māori Nutrition and Physical Activity Scoping Project' to identify issues and key messages promoted. A key recommendation was to address food security issues in rural Taranaki, particularly around the access and availability of fresh fruit and vegetables.

Key community stakeholders from a suitable community were consulted. Consequently gardens were established at the local Playcentre, Kōhanga Reo and Primary School. These were made possible by a funding grant and an enthusiastic community member.

The project has now grown beyond the gardens to incorporate other supply and access aspects of food security. This has been a result of Massey University [MU] and Auckland University of Technology [AUT] becoming involved. The project now includes pre and post programme evaluation with community, commercial landscape mapping exercise, case studies, service mapping, information design critique and cost analysis.

Research Team

The TDHB established a gardening project with local education settings. Since, a multifactorial approach has been developed with MU, AUT and the Universal College of Learning [UCOL] to explore the wider issues of food security.

Isolated Rural Community

The selected isolated rural community is situated on the boarder of two regional districts. Population is just less than 900 and made up of 30.5% Māori (regional average 15.8% Māori). Median income is \$15,600 per annum. The community contains a Primary School and two early childcare centres. The nearest supermarket 30 minutes drive and two out of ten local retailers sell fruit and vegetables.

Food Security

"Food Security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet dietary needs and food preferences for an active and healthy life" (FAO, 1996).

Research Plan

Project	Objectives
Education Garden Project	<ul style="list-style-type: none"> Increase 'how to grow' knowledge Increase knowledge of fresh fruit and vegetables varieties Increase consumption benefits knowledge Reduce access barriers Increase consumption
Evaluation (pre/post questionnaires)	<ul style="list-style-type: none"> Assess the effectiveness of the Education Gardens Project Record initial and subsequent knowledge of the following: <ul style="list-style-type: none"> Knowledge of types Likes and dislikes Levels of consumption Awareness of healthy eating Access (shops vs home gardens)
Mapping (commercial landscape)	<ul style="list-style-type: none"> Recording food advertising and litter items within a 500 metres radius of the Primary School
Case Studies (interviews photo journals)	<ul style="list-style-type: none"> Generate a qualitative understanding of expense as barrier from the resident's perspective Generate a qualitative understanding of consumer behaviour relating to perceived risks associated with fruit & vegetable consumption
Service Mapping (blueprinting)	<ul style="list-style-type: none"> To generate an understanding of fresh fruit & vegetable availability, services and access within the isolated rural community Visually represent the isolated rural community fresh fruit and vegetable services Reveal the underlying support processes and connections
Information Design Critique	<ul style="list-style-type: none"> To evaluate the current design solutions used within the isolated rural community relating to improving access and availability of fresh fruit and vegetables
Cost Analysis	<ul style="list-style-type: none"> To conduct market research on the price, and seasonal variation of prices, of available selected fresh and processed fruit and vegetables in order to determine the daily cost of meeting the 5+-A-Day initiative in the isolated rural community
Digital Story	<ul style="list-style-type: none"> Create a digital presentation that communicates the findings of the isolated rural community research back to the community Tell the 'story of this garden' from the perspective of those involved in the project
Media	<ul style="list-style-type: none"> Consistent messages to support healthy choices Promote project and healthy choices via local newspaper, notice boards, retailers
Cooking & Gardening Workshops	<ul style="list-style-type: none"> Knowledge, skills and access to fruit & vegetable
Publications	<ul style="list-style-type: none"> Awareness of project by other health professionals & academics
Co-Design Session	<ul style="list-style-type: none"> Design product/service design solutions
Funding Applications	<ul style="list-style-type: none"> Gain funding to refund a percentage of the research costs

Project Progress

- 2005 Scoping project identified food security issues in rural Taranaki.
- 2006 A potential rural community site identified for action.
- 2007 Consulted with key community stakeholders to establish community gardens in the local Primary School. Local Primary School also joined the Fruit in School programme.
- 2008 Vegetable gardens established at Playcentre, Kōhanga Reo and Primary School.
- 2009 Massey University, Auckland University of Technology and UCOL involved. Project broadened to include food supply and accessibility.

Formative Evaluation

Methods

In October 2008, a pre-programme survey was conducted with the parents and children from the Kōhanga Reo, Play Centre and Primary School. There were 22 respondents to this survey. The main topics of the survey included...

- Fruit and vegetable consumption
- Knowledge of different varieties of fruit and vegetable
- Sources of fruit and vegetables included if they had gardens or fruit trees at home

A post-programme survey is to be conducted in Term 4 (October 2009).

Key Findings

- Respondents were able to identify 39 vegetables and 29 fruit (figure 1)
- Respondents were more likely to dislike vegetables than fruit
- 41% of respondents ate at least three servings of vegetables per day
- 72% ate at least two servings of fruit per day
- 79% of respondents purchase fruit and vegetables out of town

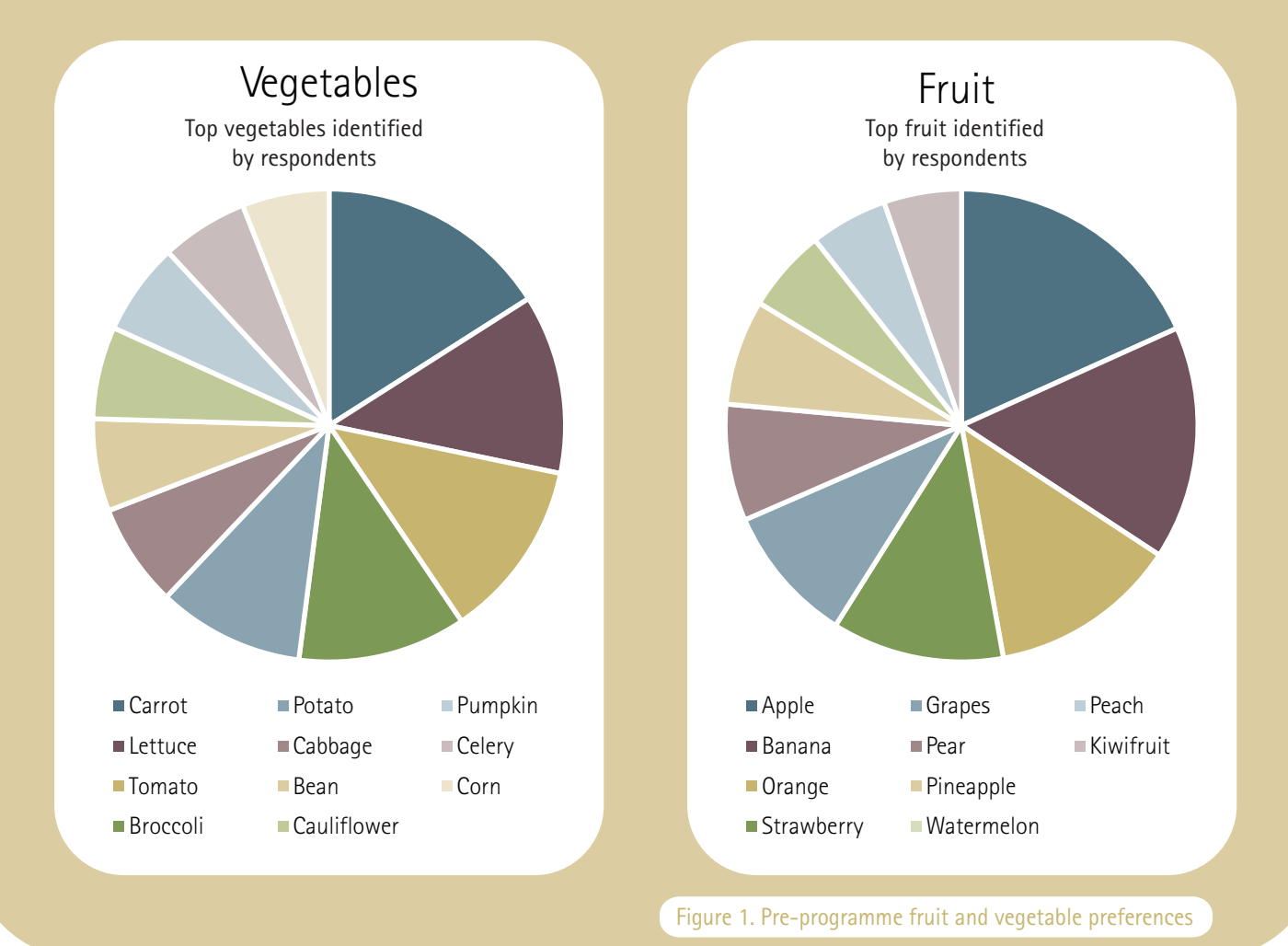


Figure 1. Pre-programme fruit and vegetable preferences

Food Landscaping

Methods

A Food Landscaping exercise was conducted based on a study by Kelly, Cretikos, Rogers & King (2008). This highlighted the impact of the wider environment on consumers food choices. Promotion of healthy food is an important aspects of food security.

Advertisements and food-related litter were recorded within a 500m radius from the local Primary School (figure 2). Food was classified as core, non-core or miscellaneous drinks (tea and coffee) based on criteria from Kelly et al (2008).

A coding schedule was designed to capture data details as follows:

- Food-related litter type (core or non-core)
- A description of the item found, including product and brand name
- The distance of the item from the centre of the school grounds (<250m or 250-500m from the school)
- The size of the item
- Location of item (shopping area, main or residential street)

Key Findings

- Food related litter accounted for nearly all (92%) of recorded data
- Majority (91.5%) of food items were classified as non-core
- Alcoholic beverages (23%) and confectionary (23%) were the most common food items
- Food items were concentrated at the street corners surrounding the primary school

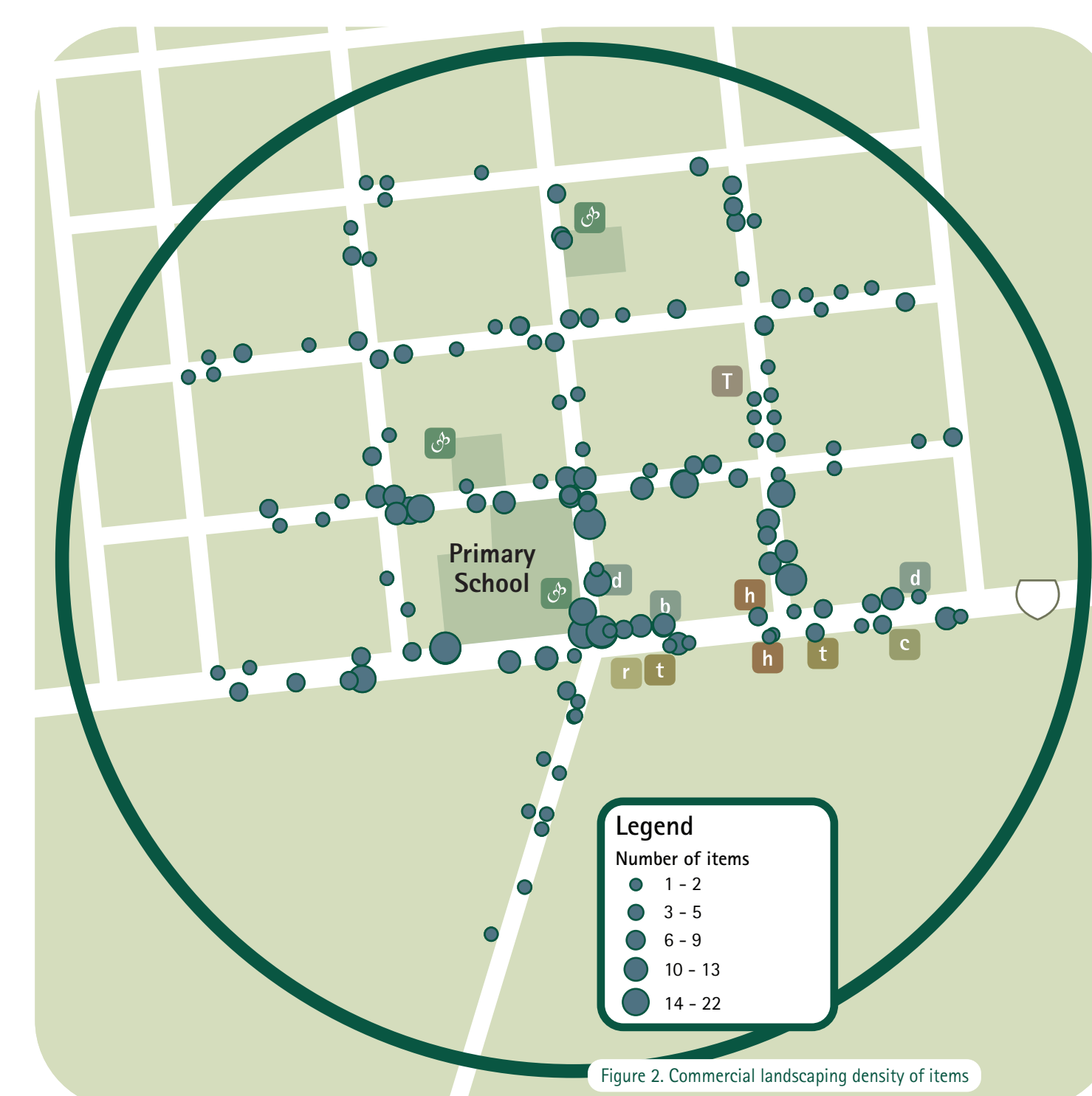


Figure 2. Commercial landscaping density of items

Cost Analysis

Methods

The cost of meeting 5+-A-Day fruit and vegetable recommendations, two and three serves daily respectively, was investigated in the sixth week of winter (July 2009). Firstly data was collected from the two small stores of the isolated rural community. This was repeated at a large urban supermarket in the nearest neighbouring town for comparison. The 'data picture' was intended to be a snapshot of availability for fruit and vegetables for consumers of this particular town.

The distance between the rural community and the nearest supermarket was 43.8km. The cost of Unleaded 91 petrol at the time of data collection was \$1.69 per litre. Thus, an approximate cost for a return trip to the urban supermarket in a car averaging 10L per 100km was \$14.80.

Measurements were based on the international 5+-A-Day programme. This amounts to the recommended daily intake of 80g (total 400g) of fresh, frozen, or canned fruit and vegetables and 30g of dried fruit and vegetables. Two different strategies were applied to establish price per serving

- The items sold on price per kilogram were converted by dividing the price by 1000 to give the price per 1g. This was then multiplied by 80 for fresh, frozen or canned products or 30 for dried products.
- The items sold on weight basis were converted by dividing the actual weight in grams. This was then multiplied by 80 for fresh, frozen or canned products or 30 for dried products.

Only the most common fruit and vegetables were recorded in the assessment. Exotic varieties like bok choy, guava and lychees as well as items like gherkin and pickled onions were excluded. Potatoes, kumara and other starchy root vegetables were also excluded in line with other studies examining vegetable intake (Giskes, Turrell, Patterson & Newman, 2002; Roos, Johansson, Kasnel, Klumbiene & Prättälä, 2000). Highly processed items like tomato in ketchup and fruit in sauce, juice and jams were omitted too.

Research indicated that fresh, frozen, and canned foods are nutritionally comparable (Breen, 1994). So, with the inclusion of selected items of processed fruit and vegetables into the daily intake, consumers could meet the 5+-A-Day initiative for even less and not feel constrained by the limitations of fruit and vegetables being expensive or perishable.

The cost analysis included 40 different fresh fruit and vegetables and 60 processed varieties. The latter consisted of 25 canned, 18 frozen and 17 dried fruit and vegetables from 18 different brands. To determine the difference between fresh and processed products, this study compared prices for 29 fruits and 30 vegetables where both forms were available.

Key Findings

- Total average daily cost of meeting the fresh 5+-A-Day recommendations per person was \$2.61 in the rural community, compared to \$2.18 in the urban supermarket (figure 4).
- There was a wide variation in price for all types of fruit and vegetables, both fresh and processed.
- Substituting fresh fruit and vegetables with processed products reduces the cost per person to \$1.80
- Fresh fruit and vegetables were less expensive at the urban supermarket (\$0.08 per serve kiwifruit to \$0.64 per serve grapes; \$0.08 per serve carrot to \$1.92 per serve cherry tomato).
- In the urban supermarket the average price per serving was \$0.29 for fruit and \$0.54 for vegetable. Four fruit and ten vegetables cost more than the average price (these more expensive items are indicated on Figure 3 with an asterisk).
- The results suggest a household of four people would need to spend \$57.68 to \$73.08 per week to meet recommendations for fresh fruit and vegetables. Substituting fresh with processed equivalents would reduce the cost to \$50.40.
- Prices at the urban supermarket were significantly cheaper ($p < 0.05$). However, adding in the cost of petrol for a return trip (\$14.80) negates some of this saving.

Digital Story

Methods

A digital story is currently being developed with whānau from the Kōhanga Reo, Play Centre and Primary School. The aim of this tool is to feedback evaluation findings to the wider community about establishing gardens in a more engaging way. It is hoped that using an interactive and visual method will 'turn on the lights' for the community to develop their own solutions to the identified issues.

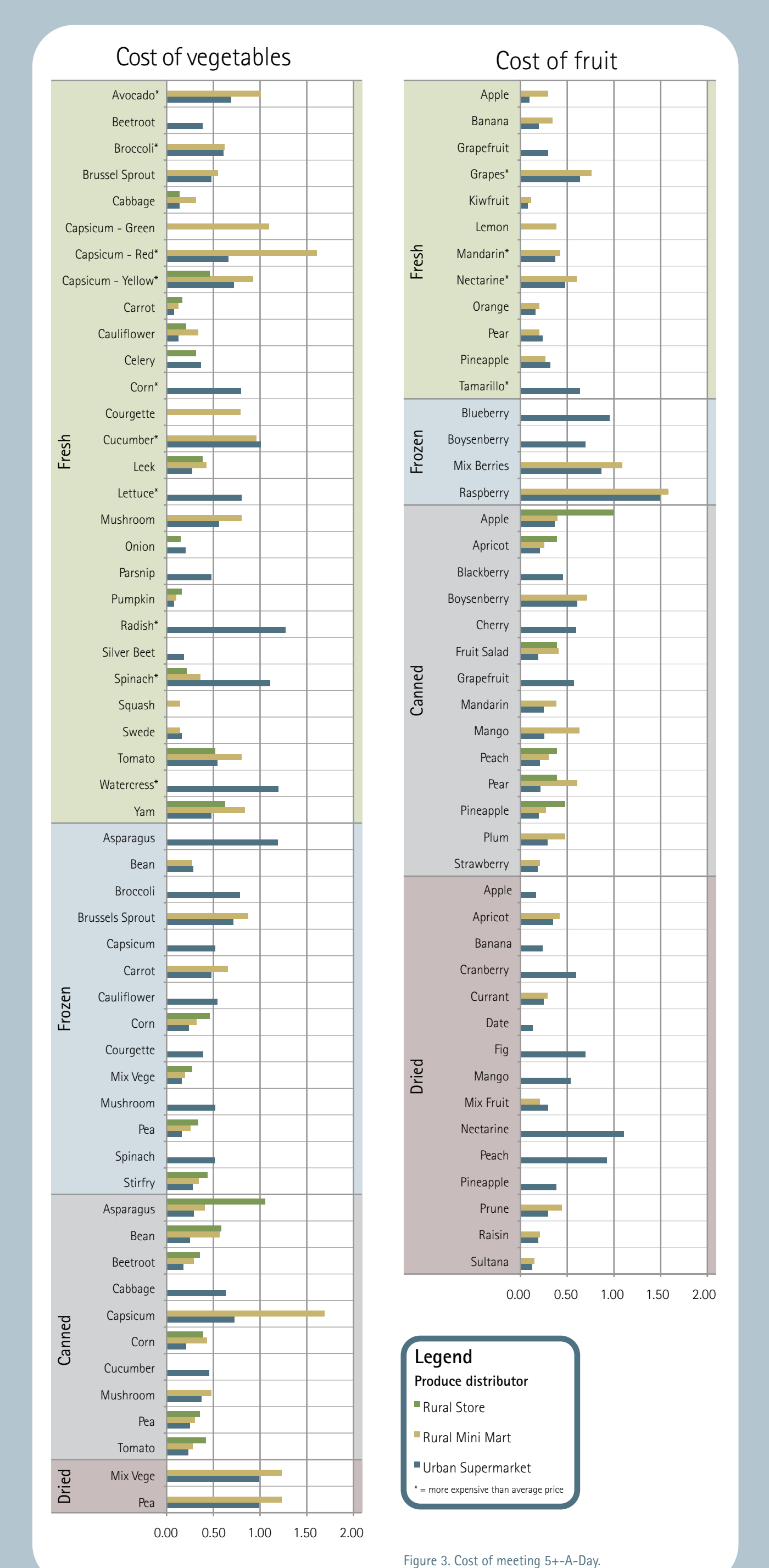


Figure 3. Cost of meeting 5+-A-Day

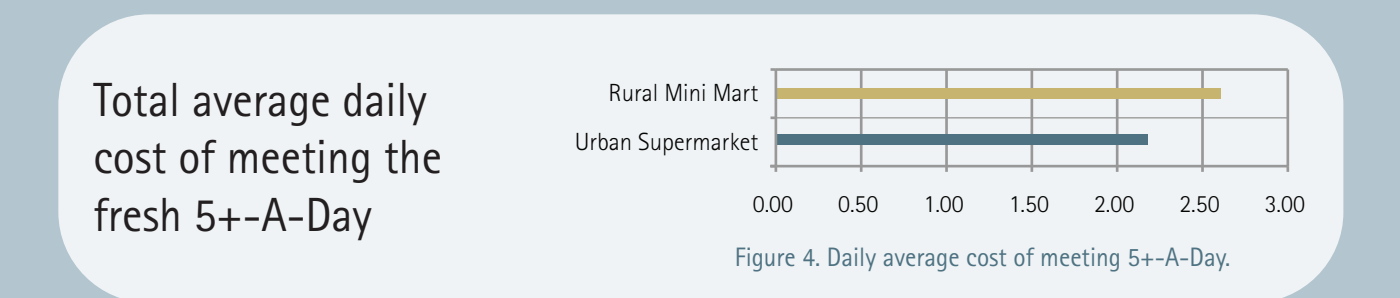


Figure 4. Daily average cost of meeting 5+-A-Day

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Cost as a Barrier to Eating Fruit and Vegetables: A Service Design Approach

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Abstract

Service design is an emerging discipline that has enabled inspired service innovation in a variety of industries. This paper presents the application of three service design methods, *Service Blueprinting*, *Directed Story Telling* and *Photo Journaling*, alongside a quantitative *Cost Analysis* method. Methods were used to explore a societal issue. The research investigated the social issue of ‘cost as a barrier to eating 5+-A-Day’ for residents of an isolated rural community. Research methods were used to investigate food supply and access to food, from both the suppliers and residents’ perspectives. The findings show the positives and negatives of using service design methods within this context.

Keywords: Service design methods, nutrition, 5+-A-Day, expense, isolated rural community

Cost as a Barrier to Eating Fruit and Vegetables: A Service Design Approach

Introduction

Service design is an emerging design discipline that focuses on helping providers develop and deliver improved client experience, through combining traditional design skills with multidisciplinary research methods (C. Burns, Cottam, Vanstone, & Winhall, 2006; Mager, 2008). Discipline enthusiasts advocate that service designers are uniquely qualified to help solve complex problems (C. Burns, et al., 2006). This research project supports the emergence of the new service design discipline and builds on its body of knowledge. Since appearing as a concept in the early 1990s (Maffei, Mager, & Sangiorgi, 2005) a wide variety of service design projects have been implemented in different industries such as telecommunication, transport, retail, financial, health services and the public sectors (Rosted, Lau, Høgenhaven, & Johansen, 2007; Thackara, 2007). Service design projects have predominately been implemented within the context of companies or organisations to investigate or improve a particular service. Limited attention has been paid to the potential of using service design methods within social contexts. The purpose of this research project was to investigate the use of service design methods within a social problem.

A practical project that focussed on a social issue was used as a case study to explore the research question. The practical project selected was 'cost as a barrier to eating 5+-A-Day for isolated rural residents'. This paper documents the methods and results from the practical project. The paper also includes a summary of the observations and reflections on the practical project, forming the findings of the overarching research.

The Practical Project

New Zealand's food supply has been confirmed as being more than adequate to provide enough nutritious and safe food for all New Zealanders (Public Health Commission, 1993). Paradoxically some New Zealanders experience having insufficient food or going hungry as they have run out of food and are unable to afford more (Obesity Action Coalition & Te Hotu Manawa Māori, 2009). Addressing local food supply issues for specifically disadvantaged groups has been recommended as more important than examining and modifying national food supply (New South Wales Centre for Public Health Nutrition, 2003).

In 2006 pilot study McClellan clearly identified that cost was a barrier to eating healthy food in a South Taranaki (McClellan, 2006). This enquiry expands on McClellan's work by taking a more in-depth look into the cost barrier. The research described in this paper formed part of a larger, more comprehensive research project that investigated food security in an isolated rural community, initiated by the Health Promotion Unit from the Taranaki District Health Board. An isolated community in the South Taranaki region of New Zealand was selected as the location for the practical project. There were two reasons behind choosing an isolated community. Firstly, those who live in rural or remote areas have been identified as experiencing cost disadvantages due to their geographic location (New South Wales Centre for Public Health Nutrition, 2003; Obesity Action Coalition & Te Hotu Manawa Māori, 2009). Secondly, people who are socioeconomically disadvantaged and/or have low disposable incomes are more likely to experience cost as a barrier (New South Wales Centre for Public Health Nutrition, 2003). With just less than 900 residents the selected community was a small town, rural in nature and geographically isolated. A high number of residents

were in a low socio-economic income bracket, 83% of households living off incomes of \$30,000 or less (Statistics New Zealand, 2006).

The initial objective of the practical project was to determine how the average cost of purchasing 5--A-Day differed within an isolated rural community to an urban town. The second objective was to generate an understanding of fruit and vegetable availability, services and access within the rural community. Thirdly, in relation to the 5--A-Day initiative, the project sought to gather a record of participants' knowledge, thoughts and current fruit and vegetable nutrition. Finally, a qualitative understanding of the cost barrier was sought from the residents' perspective. The key objectives of which were to 1. Understand feelings, attitudes, behaviours and personal experiences related to fruit and vegetable access and 2. To enable participants to identify and describe any access barriers they perceive. Overall, the study was designed to present a brief summary of the how residing in a small isolated rural community can affect residents' access to fruit and vegetables.

Sample

Two shops were identified as the only fruit and vegetables suppliers in the community, a Mini Mart and a butcher. Both owner/operators were provided with information that explained the nature and intent of the study, they were happy to participate. A vegetable grower and the petrol service station were also identified as handling fresh produce, however both were excluded from the research. The grower did not directly supply the community and the petrol station had a sporadic supply of items such as lemons and onions.

Ten rural residents and their families were recruited as participants to explore the issues around access to fruit and vegetables. Participants were recruited by word of mouth through the Community Health Centre and three education providers; the Primary School, the Play Centre and the Te Kōhanga Reo. Participants were recruited if they could identify with the following statement... '*Expense is a barrier to eating fruit and vegetables for our family*'. This small convenience sample was used due to time and cost constraints. The researchers acknowledge that the data collected from participants can only be viewed as exploratory in nature and may not be representative of the wider population. This small sample was appropriate as we do not intend to generalise and because the practical project was only used as a pro forma that explored how service design methods could be used within social issues.

Methods

A research plan was developed that included investigating both food supply and access to food, in order to understand how residing in a small isolated rural community can affect residents' access to fruit and vegetables. *Service Blueprinting* was used in combination with a qualitative *Cost Analysis* method to generate an understanding of fruit and vegetable supply. Qualitative data was gathered from the residents about their access to fresh fruit and vegetables through *Directed Storytelling* and *Photo Journals*.

Service Blueprinting was selected as an appropriate method for investigating the supply of fresh fruit and vegetables in the community, because key factors that influence food supply could be explored: the location of food suppliers; the availability of food within the stores; the quality and variety of food available; and the way that foods are identified and promoted. A Service Blueprint is a diagram of a service system, typically drawn as a flowchart, which has

been described as being useful for both innovation and improvement. Service processes are examined and gathered data is used to depict steps of a service, touch-points and evidence of service (Zeithaml, Bitner, & Gremler, 2009). Blueprints are created through observations of customer actions, employee actions, support processes and physical evidence (collected tangibles) (Bitner, Morgan, & Ostrom, 2007). Whilst typically used to investigate a service in a specified business, in this instance the Blueprint was used to generically represent all community services. The *Cost Analysis* method supplemented *Service Blueprinting* by investigating the cost of meeting the 5+-A-Day fruit and vegetable recommendations (two and three serves daily respectively) in the sixth week of winter during July 2009. Measurements were based on the international 5+-A-Day programme. The 'data picture' provided a snapshot of both availability and cost of fruit and vegetables during the most costly season.

Directed Storytelling and *Photo Journals* methods were selected as appropriate for exploring the community's access to fresh produce. The combination of methods was selected because sometimes what a participant says does not match what they do. The methods were deemed appropriate because narrative inquiries are described as being good for enabling researchers to gain a more thorough understanding of individuals' experiences (Anderson, 1990; R. Burns, 2000; Mattelmäki, 2005). *Directed Storytelling* is a method that can quickly reveal consistent patterns in people's situations by asking participants to narrate personal experiences (Everson, 2006). Reported advantages include how researchers can quickly get to the core of an experience and do so without big financial investments (Everson, 2006). A *Photo Journal* is a self-documentary technique that allows participants to personally portray their experience in response to a series of questions. A *Photo Journal* is described as a suitable research technique for documenting experiences, allowing participants to 'narrate' these experiences without researchers being present. It is also touted as being useful for gathering residential language and the privacy of this technique makes it less invasive (Mattelmäki, 2005).

Data Collection

Two researchers collected the *Service Blueprinting* data. The first member of the research team became an actor and performed the role of a customer. A second researcher shadowed the acting team member as they experienced the service. Observed information was recorded through note taking, photography and recording reflections after the service encounter. A rough draft of the service experience was quickly sketched and then used as a prompt for discussions with the service owner/operator. The process of gathering data for each component followed the same steps for each service provider. Data was then used to create a community service blueprint including details of all the available food supply services. The *Cost Analysis* data collection method used was consistent with that of Dresler-Hawke's (Dresler-Hawke, 2007) 'Fresh vs. processed fruit and vegetables' research.

Following recruitment researchers met with participants either in their own homes or at the community health centre to conduct the *Directed Storytelling* interviews. An opportunity was given to ask questions about the research and then participants signed consent forms. Participants recounted experiences in a focused interview, which followed an interview guide based on Everson's *Directed Storytelling Protocol* (Everson, 2006). The *Directed Storytelling* conversations were digitally recorded and notes were taken throughout. Audio recordings were transferred onto a computer. At the end of the *Directed Storytelling* participants were offered the opportunity to participate in the *Photo Journal* research. Half of the participants agreed to take part. The researcher checked that those participants knew how to use a disposable camera and talked briefly through the journal with them. Participants were asked

to photograph aspects of their individual experiences and annotate these images within a provided journal. Important words, themes or issues were extracted from the interviews and photo journals by writing them onto post-it notes and adhered to a whiteboard for eventual reordering into key concepts. Analysis focussed on identifying key words and concepts, exploring connections and patterns based on the data participants provide of their experiences.

Findings

The costs of meeting the 5+-A-Day recommendations in the rural community are represented in the table below.

Table 1. Average costs of 5+-A-Day, daily per person and weekly for a family of four.

	Fresh produce		Cheapest combination of fresh, frozen, canned or dried produce	
	<i>Individual Daily</i>	<i>Family Weekly</i>	<i>Individual Daily</i>	<i>Family Weekly</i>
Rural Mini-market	\$2.61	\$73.08	\$2.33	\$65.24
Urban Supermarket	\$2.18	\$57.68	\$1.80	\$50.40

Service Blueprinting findings showed that there were only two main food supply services in the community, both located on the main road, easily accessible to all. The Mini Mart stocked a wide variety of fruit and vegetables, whereas the butcher only stocked a range of staple vegetables. When the butchery was asked why they stocked vegetables the response indicated that they were filling a need. The butcher referred to the Mini Market as being an expensive and it was mentioned that locals had expressed the need for an alternative supplier. The primary service flow recorded within the community could be described as a relatively standard produce retail experience, where customers would enter, view the individual or bulk bagged items, then select, purchase and exit the stores. The stores appeared responsive to their customers needs, for instance the butcher was happy to break open a bag of potatoes and repack a few of these into a smaller bag. Discussions with the Mini Mart owner following service mapping exercise exposed more tailored service options, such as seasonal 'Soup Mix' bags and 'Christmas Mix' hampers. Owners were aware of the cost of produce in urban supermarkets being lower, however they felt they catered specifically for their local customers. Both owners claimed that their produce was fresher and that rather than having to buy bulk customers could buy as much as they needed - reducing cost by limiting waste from spoiling. It was interesting to note that produce that was due to perish was first reduced in cost for quick sale and then dumped. Staff described the quantity of dumped produce as large.

Two very memorable stories were recorded in the *Directed Storytelling* interviews. One mother told us about a time when she had not been able to afford enough mandarins for all of her children and how her littlest girl was upset when she discovered that she had missed out. A father told about a particular tough week when he couldn't afford a bag of carrots for his family, tears came to his eyes during this story. All participants shopped for groceries out of town. Nine of the ten participants said that any travel costs were negated through having additional reasons for their travel, such as picking up school children, work, etc. One participant used the community bus service to go shopping once a week in the nearby town (\$12 return). Several purchasing, transporting and storage issues affected this particular participant, due to not being able to afford a car, not being able to afford the running cost of refrigeration and having a total budget of \$70 per week for all groceries (household made up

of 1 adult and 3 secondary school aged children). In nine out of ten participants expressed that fruit and vegetables were important food items to include in their diet. Eight participants were aware of the 5+-A-Day recommendations. Three participants felt it was important to strive for five portions, the remaining participants either stated that a lower quantity was fine (between one to three portions) or commented on cost “not everyone can afford 5+-A-Day”. It is surprising that only one participant regularly ate five portions daily, for remaining participants the average consumption was two and a half portions per day.

There was a strong sense of a ‘gap’ in low price fresh produce services within the community recorded in the Interviews and *Photo Journals*. A strong aversion to the rural storeowners was also very apparent, as was a feeling that the services catered for only some of the community, ‘farmers’ and not ‘townies’. The excessive cost of a ‘\$6 Broccoli the size of a softball’ was frequently mentioned. Local produce (from the vegetable grower) was noted as sometimes being ‘almost twice the price in its own community’. Residents stated that local fruit and vegetables were sometimes not as fresh as urban produce. Many participants mentioned additional supply avenues such as; personal and community gardens, swapping produce with neighbours and ‘Fruit in Schools’. Several participants did not purchase fruit, instead relying on the ‘Fruit in Schools’ initiative for providing their children with fruit, leaving the adults going without.

Overarching Research Findings

The purpose of this research project was to investigate the use of service design methods within a social problem. The most successful technique explored was *Service Blueprinting*. Blueprinting is described as provided a common platform for everyone to review existing service process and facilitate innovative developments (Bitner, et al., 2007). The resulting blueprint provided a good platform for community lead discussion and innovation, because the blueprint highlighted the lack of service variety in the community – especially in services that cater for lower-socioeconomic groups. There were also several unexpected outcomes experienced while using *Service Blueprinting* including; the ease with which service owner/operator participants were recruited and the unrestricted access to business operations (surprising especially as the topic of ‘cost’ was potentially quite contentious). *Directed Storytelling* had mixed success. The true benefit of this research method was in the rapid analysis technique conducted after the interview, results were quickly recovered from the interview recordings without transcription. The *Directed Storytelling* supplied emotive stories about what it is like to experience cost as a barrier, which were useful in ensuring the food suppliers are aware of the gaps in services from the resident’s perspectives. Unfortunately several participants struggled with the technique, not being able to think of a story to tell and instead responded better to structured interview questions. Using *Photo Journals* in combination with Interviews should have enabled a better understand the participants’ experiences, however this was not the case. The *Photo Journals* were often returned incomplete and tended to lack new or insightful data. It is hard to assess the potential of this research method due to the poor result. However it may be a poor choice of method given that the participants mentioned that they simply didn’t have enough time to allocate towards journal completion. Overall using a service design approach to investigate ‘cost as a barrier to eating 5+-A-Day for isolated rural residents’ did generate insights into the barrier and as a result does have potential for further use within social contexts.

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Cost as a Barrier to Eating Fruit and Vegetables: A Service Design Approach

ANZMAC 2010 | Leigh Parker & Emma Dresler-Hawke

Wednesday 1 December 2010 | Session 10.5



MASSEY UNIVERSITY



project methodology



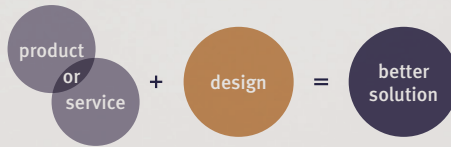
cost as a barrier to eating fruit and vegetables



- New Zealand's food supply is adequate
- Cost as a barrier to eating 5 + A Day for isolated rural South Taranaki residents
- The two reasons behind choosing an isolated community
- Community statistics

service design for social problems

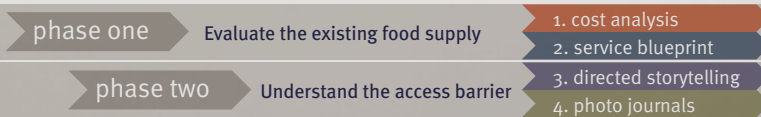
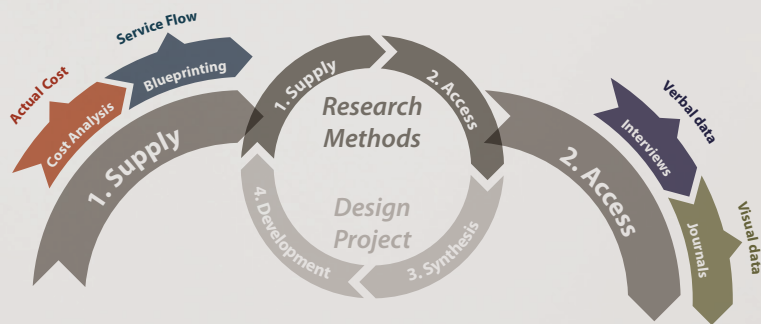
- Service Design - an emerging discipline



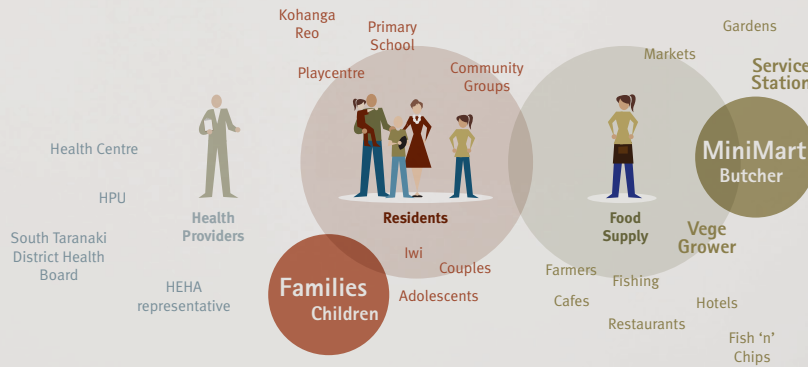
- Service Design for social problems?



case study objectives



case study sample



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Slide 6

case study method and findings

phase one

Evaluate the existing food supply

1. cost analysis

2. service blueprint

method

- Recorded actual costs of fruit and vegetables during the sixth week of winter during July 2009
- Measurements based on the international 5 + A Day programme
- A snapshot of availability and cost during the most costly season
- Method consistent with *'Fresh vs. processed fruit and vegetables'* research

findings

Average costs of fresh 5 + A Day

	Per Serve	Individual Daily	Family Weekly
Rural	54c	\$2.61*	\$73.08*
Urban	48c	\$2.18*	\$57.68*

*Including average prices for 3 servings of vegetables and 2 servings of fruit

- Fresh produce was less expensive at the urban supermarket ($p < 0.05$)

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Slide 7

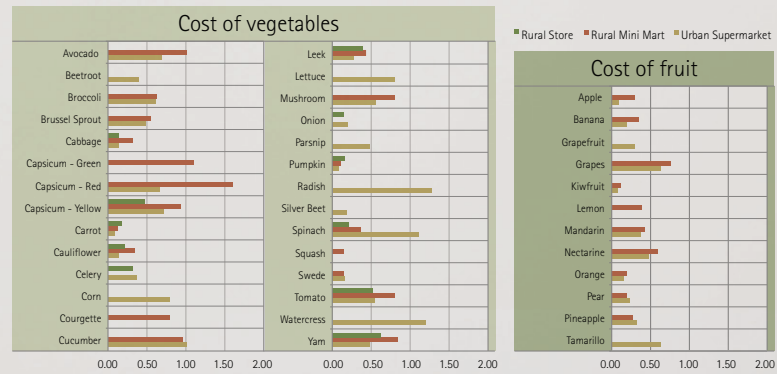
case study method and findings

phase one

Evaluate the existing food supply

1. cost analysis

2. service blueprint



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Slide 8

case study method and findings

phase one

Evaluate the existing food supply

1. cost analysis

2. service blueprint

method

- A Service Blueprint is a diagram of a service system
- Blueprints are created through observations of...
 1. Customer actions
 2. Employee actions
 3. Support processes and
 4. Physical evidence
- Two researchers collected the Service Blueprinting data

findings

- Two main food supply services
- The butchery stocked vegetables in response to a perceived service gap
- Service flow was a relatively standard produce retail experience
- Owners were aware of cost differences
- Catered specifically for rural customers

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Slide 9

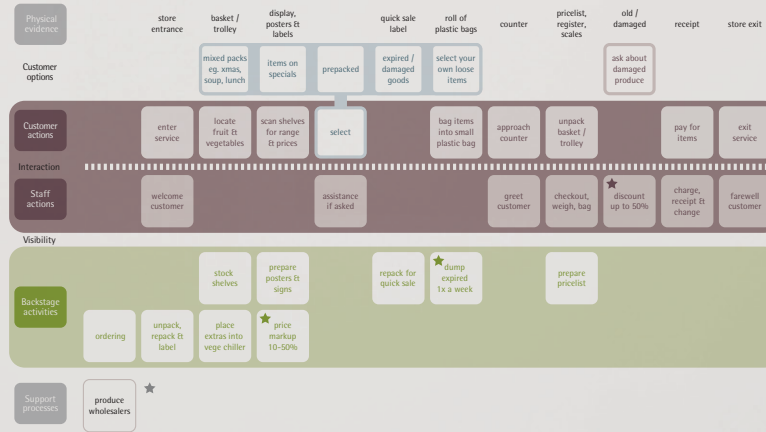
case study method and findings

phase one

Evaluate the existing food supply

1. cost analysis

2. service blueprint



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Slide 10

case study methods

phase two

Understand the access barrier

3. directed storytelling

4. photo journals

methods

- Combination of methods, because sometimes what a participant says does not match what they do

Everson's Directed Storytelling

- "Tell me a story about..."
- Participant, leader & recorder

Photo Journals

- Disposable cameras & booklets
- Post-it-note analysis



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Slide 11

case study findings

phase two

Understand the access barrier

3. directed storytelling

4. photo journals

findings

Findings confirmed that participants...

- Tend to shop out of town, topping up rurally between shopping trips
- Were acutely aware of unit prices, price spikes and 'mark-ups'
- Tend to have strong negative opinions about the Mini Mart owner
- Describe prices as being very expensive
- Struggle in the off season
- Are savvy 'staples' shoppers
- Ranked retailers in order of price
- Believe that average families are not able to afford to shop locally
- Differ in opinion to the store owners about the quality of the fresh produce
- Feel there is demand for a cheaper produce service, however...
- Don't believe the situation could change
- Rely heavily on 'Fruit in Schools'
- Lead very busy lives

case study findings

phase two

Understand the access barrier

3. directed storytelling

4. photo journals



research key findings

- Most successful technique was Service Blueprinting
- Directed Storytelling had mixed success
- The potential of Photo Journals was hard to assess
- Overall a service design approach did generate insights into the barrier

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the end

thank you | any questions?





Design Work Design Solution

E Design Solution



The 5+ Best Buys System a design solution developed in response to the social project research. This component is the main practise-based outcome.

› Discussed in Chapter 3, Section 3.7
introduced on page 60.



5+ Best Buys

A user guide

Informing your customers about the 10 cheapest fruit and vegetable items available in your store.

Thank you for being involved in the Taranaki District Health Board's Food Security Research Project 2008-2010.

Our research findings showed that lower socioeconomic residents would like to have local access to regular basic good quality staples at consistent cheap prices. They are both unable and unwilling to purchase items with high markup, due to their budget restrictions. As shoppers they are acutely aware of unit prices and could vividly recall price spikes. These residents felt 'ripped off', angry and frustrated with fruit and vegetable prices. During the research we also discovered how you are aware of the community residents who sit in a lower socioeconomic income bracket and that you are willing to take on new initiatives that might help this residential group.

The 5+ Best Buys System is one design solution inspired by the research. It is a comprehensive kit designed for your store. It will inform your lower socioeconomic customers about a way to shop that avoids high prices. It does this by identifying the most cost effective items in your store and raising awareness about the nutritional equivalence of processed items.

- The aim from a residential perspective is to help equip residents with tools and a strategy that they can use to help reduce the amount of money that the 5+ A Day dietary recommendations require.
- The second aim is to increase your own awareness of your minimum price produce range so that you might help guide your customers choices.

Posters should be displayed in store in a prominent position, perhaps near the fresh food area for example.

They are designed to inform your customers of the cheapest seasonal fruit and vegetable items available in your store and include processed items substitute suggestions (frozen, canned or dried).

In your [IRC] Local Store

5+ Best Buys : Winter


for less than \$1 per day

During the winter months these 10 items are the cheapest fruit and vegetable items you can buy in our store.

Choose 3 servings of these vegetables...				
				
Carrots	Pumpkin	Squash	Swede	Frozen Beans
				
Frozen Vegetables	Frozen Peas	Canned Beetroot	Canned Peas	Canned Tomato

Choose 2 servings of these fruits...				
				
Kiwifruit	Orange	Pear	Pineapple	Canned Apricots
				
Canned Pineapple	Canned Strawberry	Dried Mixed Fruit	Raisins	Sultana

Frozen, canned and dried fruit and vegetables are as good for you as fresh, but cost less saving you money.



Fresh

=



Frozen



Canned



Dried

Look out for the 5+ Best Buy labels around the [IRC] Local Store to find these cheap items.

5+ Best Buys

Look out for next seasons best buys...


Winter


Spring


Summer


Autumn

TARANAKI DISTRICT HEALTH BOARD

IRC Mini Mart Logo

The Taranaki District Health Board will fund this initiative. All we ask is that you help us out by becoming familiar with the system and displaying it in store for your customers.

Each season you will be provided with...

- A 5+ Best Buy Poster
- 10 Shelf Markers
- Price Guides
- Recipe Leaflets

We will also provide you with...

- Better Buy Labels
- Better Buy Shelf Markers

The 20 seasonal Shelf Markers are for you to display in store. These identify the cheapest 10 fruit and 10 vegetable items each season to your customers.

To use, rip up the perforated sheets provided and place each Shelf Markers next to the fresh, frozen canned or dried items identified in the seasonal posters.



↑ Seasonal Best Buy Shelf Markers.



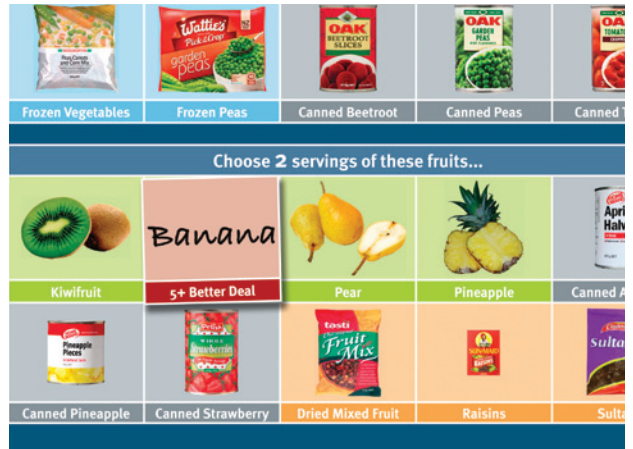
↑ An example of a Shelf Marker placed next to a fresh item in store.

Throughout the season prices of items pictured in the posters may change, for example when fresh produce items spike in price due to bad weather.

Posters can be adapted to suggest alternative items in these instances. Use a Better Deal Label to stick a suggestion directly onto the seasonal poster and use a Better Deal Shelf Marker to identify this alternative in store.



↑ Better Deal Labels and Shelf Markers.



↑ How to use the Better Deal Labels on the posters.

Price Guides and Recipe Sheets are additional components designed to provide further information to your customers, on both the full range of seasonal serving prices and how to use the cheapest items.

You could keep these behind the counter for regular customers or put them out in the provide brochure holder next to the seasonal poster.

Key

Fresh	Frozen
Canned	Dried

Frozen, canned and dried fruit and vegetables are as good for you as fresh, but cost less saving you money.

IMPORTANT: Use these prices as a guide only. The prices listed here were calculated during Winter in 2009.

10c - 25c
Cabbage
Carrot
Cauliflower
Onion
Pumpkin
Silver Beet
Squash
Swede
Mixed Vegetables
Peas

5+ Best Buys Winter

A fruit and vegetable serving price guide to use during winter.

5+ Best Buys Winter Recipe

Easy Pumpkin!

1. Cook a pumpkin on high power in the microwave until the base is soft (allow 12–15 minutes for a 2 kg pumpkin) or in a pot of boiling water.
2. Cut in half, remove seeds and peel.
3. Use in soups, pies or baking. Try mashed with lite sour cream, seasoned with nutmeg or ginger, cut into cubes and stirred through salads, or added as a layer to lasagne.

From www.vegetables.co.nz

Pumpkins are often cheap in season and store well. Use them in both savoury and sweet dishes, including:

- Baked pumpkin
- Pumpkin soup
- Casserole – cube and add at the beginning of cooking.
- Boil and mash with potatoes.
- Muffins or scones – add about 1 cup mashed pumpkin

From www.familybudgeting.org.nz/documents/lookbook.pdf

5+ Best Buys supplied by...

Your contact for any questions or feedback
about the 5+ Best Buys initiative is...

First name Surname

Job Description

Public Health Unit, Taranaki District Health Board, Taranaki.

Wk: (06) 753 7799

Em: maree.young@tdhb.org.nz



IRC Mini Mart Logo

In your [IRC] Local Store 5+ Best Buys : Winter



for less than \$1 per day

The 10 cheapest Winter fruit and vegetable items you can buy in our store.

Choose 3 servings of these vegetables...				
\$ →				→ \$\$
Pumpkin	Carrots	Swede	Squash	Frozen Vegetables
\$\$ →				→ \$\$\$
Frozen Peas	Frozen Beans	Canned Tomato	Canned Beetroot	Canned Peas

Choose 2 servings of these fruits...				
\$ →				→ \$\$
Kiwifruit	Sultana	Pear	Canned Strawberry	Dried Mixed Fruit
\$\$ →				→ \$\$\$
Raisins	Orange	Canned Apricots	Pineapple	Canned Pineapple

Frozen, canned and dried fruit and vegetables are as good for you as fresh, but cost less saving you money.

Look out for the 5+ Best Buy labels around the [IRC] store to find these cheap items.



5+ Best Buys

Look out for next seasons 5+ Best Buys...



In your [IRC] Local Store

5+ Best Buys : Summer



for less than \$1 per day

The 10 cheapest Summer fruit and vegetable items you can buy in our store.

Choose 3 servings of these vegetables...

\$ →		→ \$\$		
Carrots	Frozen Vegetables	Beans	Tomato	Cauliflower
\$\$ →		→ \$\$\$		
Frozen Peas	Frozen Beans	Canned Tomato	Canned Beetroot	Canned Peas

Choose 2 servings of these fruits...

\$ →		→ \$\$		
Watermelon	Sultana	Peach	Canned Strawberry	Dried Mixed Fruit
\$\$ →		→ \$\$\$		
Raisins	Canned Apricots	Pineapple	Canned Pineapple	Plum

Frozen, canned and dried fruit and vegetables are as good for you as fresh, but cost less saving you money.

Look out for the 5+ Best Buy labels around the [IRC] store to find these cheap items.



5+ Best Buys

Look out for next seasons 5+ Best Buys...



In your [IRC] Local Store

5+ Best Buys : Spring



for less than \$1 per day

The 10 cheapest Spring fruit and vegetable items you can buy in our store.

Choose 3 servings of these vegetables...

\$ →		→ \$\$		
Pumpkin	Cabbage	Frozen Vegetables	Frozen Peas	Frozen Beans
\$ \$ →		→ \$ \$ \$		
Canned Tomato	Canned Beetroot	Canned Peas	Frozen Corn	Frozen Stir fry

Choose 2 servings of these fruits...

\$ →		→ \$\$		
Sultana	Canned Strawberry	Dried Mixed Fruit	Raisins	Orange
\$ \$ →		→ \$ \$ \$		
Canned Apricots	Kiwifruit	Canned Pineapple	Grapefruit	Tamarillo

Frozen, canned and dried fruit and vegetables are as good for you as fresh, but cost less saving you money.

Look out for the 5+ Best Buy labels around the [IRC] store to find these cheap items.



5+ Best Buys

Look out for next seasons 5+ Best Buys...



In your [IRC] Local Store

5+ Best Buys : Autumn



for less than \$1 per day

The 10 cheapest Autumn fruit and vegetable items you can buy in our store.

Choose 3 servings of these vegetables...				
\$ →				→ \$\$
Pumpkin	Corn	Frozen Vegetables	Frozen Peas	Mushroom
\$\$ →				→ \$\$\$
Frozen Beans	Canned Tomato	Canned Beetroot	Broccoli	Canned Peas

Choose 2 servings of these fruits...				
\$ →				→ \$\$
Sultana	Grapes	Apple	Canned Strawberry	Dried Mixed Fruit
\$\$ →				→ \$\$\$
Raisins	Orange	Canned Apricots	Pear	Canned Pineapple

Frozen, canned and dried fruit and vegetables are as good for you as fresh, but cost less saving you money.

Look out for the 5+ Best Buy labels around the [IRC] store to find these cheap items.



5+ Best Buys

Look out for next seasons 5+ Best Buys...



5+ Best Buys

5+ Best Buys

5+ Best Buys

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5+ Better Deal	5+ Better Deal	5+ Better Deal
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5+ Better Deal	5+ Better Deal	5+ Better Deal
5+ Better Deal	5+ Better Deal	5+ Better Deal
5+ Better Deal	5+ Better Deal	5+ Better Deal



Key	
 Fresh	 Frozen
 Canned	 Dried

Frozen, canned and dried fruit and vegetables are as good for you as fresh, but cost less saving you money.

IMPORTANT: Use these prices as a guide only. The prices listed here were calculated during Winter in 2009.

Winter Vegetable Price per Serve

10c - 25c	25c - 35c	35c - 50c	50c - 80c	80c - \$1.50 +
Cabbage	Celery	Beetroot	Broccoli	Avocado
Carrot	Leek	Brussel Sprouts	Capsicum - Yellow	Capsicum - Green
Cauliflower	Beans	Parsnip	Courgette	Capsicum - Red
Onion	Corn	Capsicum	Mushroom	Corn
Pumpkin	Stir-fry	Courgette	Spinach	Cucumber
Silver Beet	Beetroot	Mushroom	Tomato	Lettuce
Squash	Corn	Spinach	Yam	Radish
Swede	Peas	Beans	Broccoli	Watercress
Mixed Vegetables	Tomato	Cucumber	Carrot	Asparagus
Peas		Mushroom	Cauliflower	Brussels Sprouts
			Asparagus	Capsicum
			Cabbage	Mixed Vegetables
			Potatoes	Peas

Winter Fruit Price per Serve

10c - 25c	25c - 35c	35c - 50c	50c - 80c	80c - \$1.50 +
Apple	Banana	Lemon	Tamarillo	Grapes
Kiwifruit	Grapefruit	Mandarin	Apple	Blueberries
Orange	Pineapple	Nectarine	Boysenberries	Boysenberries
Pear	Apricot	Blackberries	Cherries	Mixed Berries
Strawberries	Fruit Salad	Mango	Grapefruit	Raspberries
Apples - Rings	Mandarin	Pear	Cranberries	Nectarine
Banana - Chips	Peach	Plum	Fig	Peach
Dates	Pineapple	Apricot		
Raisins	Currents	Mango		
Sultanas	Mixed Fruit	Pineapple		
	Prune			

5+ Best Buys supplied by...

TARANAKI DISTRICT HEALTH BOARD

5+ Best Buys Winter



A fruit and vegetable
serving price guide to
use during winter.



5+ Best Buys Winter Recipe



Pumpkin

Easy Pumpkin!

1. Cook a pumpkin on high power in the microwave until the base is soft (allow 12–15 minutes for a 2 kg pumpkin) or in a pot of boiling water.
2. Cut in half, remove seeds and peel.
3. Use in soups, pies or baking. Try mashed with lite sour cream, seasoned with nutmeg or ginger, cut into cubes and stirred through salads, or added as a layer to lasagne.

From www.vegetables.co.nz

Pumpkins are often cheap in season and store well. Use them in both savoury and sweet dishes, including:

- Baked pumpkin
- Pumpkin soup
- Casserole – cube and add at the beginning of cooking.
- Boil and mash with potatoes.
- Muffins or scones – add about 1 cup mashed pumpkin

From www.familybudgeting.org.nz/documents/cookbook.pdf



5+ Best Buys supplied by...



TARANAKI DISTRICT HEALTH BOARD





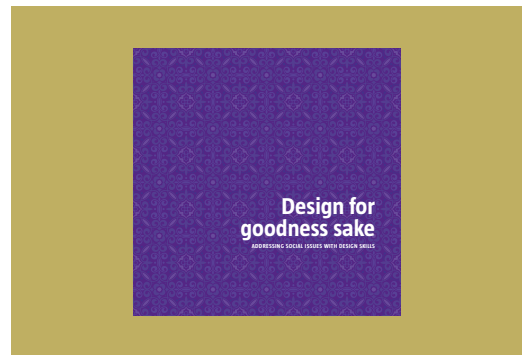
Design Work Social Design Booklet

F Social Design Booklet



An information booklet titled '*Design for goodness sake: Addressing social issues with design skills*'.

› Discussed in Chapter 3, Section 3.7.3 on page 71.





design for goodness sake

ADDRESSING SOCIAL ISSUES WITH GRAPHIC DESIGN SKILLS





DESIGN FOR GOODNESS SAKE

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ONLY THE START OF A CONVERSATION

Short and succinct, the information enclosed here is subjective and as such I would like to emphasize that the contents should not be viewed as definitive. My intent is to raise awareness, ask questions and to get conversations started. I'd welcome the opportunity to converse with you about your thoughts on this booklet or about your designs for goodness sake.

Contact : leigh_parker@orcon.net.nz

design for goodness sake

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Booklet cover: Pattern 0762

Design Credit: © Designfruit L.L.C.





An introduction to what 'design for goodness sake' means. →

Section One →

An overview of what design skills and methods can be used in social design projects, as well as details on a few topics that help set the scene.

SECTION TWO →

More in depth details about a range of opportunities in which designers can make contributions in social design projects by employing their design skills and methods.

REFERENCES →

A case study and some further reading suggestions.

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USING THIS BOOKLET



WHO THIS INFORMATION IS FOR

The primary audience, for which this booklet was developed, is New Zealand based designers who are interested in social design. The contained information may be useful for designers working in firms of any size or type. Those outside the design discipline who are contemplating involving design thinking in a social project may also get some insight from this booklet around what roll a designer could play on their team.

This information booklet includes both inspirational and practical information.

KEY:

→ = CONTENT CONTINUES

→| = CONTENT ENDS

It contains summaries of several social design related topics and is designed to generate reflection.

It doesn't need to be read sequentially. The text and pull out panels may be read together or independently.

EXAMPLE : PULL OUT PANELS

Question : What do the main text and pull out panels contain?

Answer : The main text of the document includes concept definitions, opportunity descriptions and other materials. Alongside the descriptions pull out boxes like this one include anecdotes, examples and references to other projects.

A resource list is provided at the end of the booklet. Footnote panels like this one are used to indicate the references from that list which relate best to the content on that page.

USEFUL RESOURCES

→ Author/s name. **Reference title** (reference type)

→ Methods → Case study / example → Further information

4 🗣️ It's just design for goodness sake





INTRODUCTION | WHO YOU MIGHT BE



NEEDING A CHANGE?

Do you (or your trainees) love graphic design, but find that you are...

- Unhappy with the status quo?
- Uncomfortable with the overwhelming commercial focus of the graphic design industry?
- Willing to give something else a try, but don't know what to do or where to start?
- Interested in doing something 'good' that doesn't involve logos for non-profit organisations or a social advocacy campaign?
- In a position where you can take on some pro bono work?

Then this booklet is for you.

I'm a designer and I felt the same way, but knew I wasn't alone. So I set out on a quest to find something to do about it. This booklet will provide you with all the useful things I uncovered and learnt during my first journey into socially inspired graphic design project work.

SETTING THINGS STRAIGHT

This booklet is about using design for a good purpose. 'Good' is a contentious topic within the design industry, so there are a few things that need to be set straight right away. Information in this booklet is designed to be useful for designers...

- It provides insight into social design projects opportunities
- It is designed to encourage more designers to contemplate project work that is social in nature
- It puts forward an argument that designers can both apply and extend their skills and methods in different ways
- It raises awareness of complimentary disciplines
- It provides advice that is designed to generate discussion within the design community

The booklet is not...

- All encompassing or definitive, the information in this booklet is based on subjective experience and should be treated as such
- Focussed on the visual aesthetics or sustainable practice of 'good design' (however it certainly doesn't aim to shun these valuable aspects either)

Put simply, this booklet is an attempt to illuminate and provide better access to options that are less frequently pursued. When I started out on my quest I struggled to find information about what I envisioned doing. I suspect this may also be your experience. The aim is that this booklet fills that information gap. 💡





SOCIAL DESIGN PROJECTS | WHAT IS SOCIAL DESIGN?



DESIGN FOR GOODNESS SAKE

The social design projects referred to in this booklet are examples where design thinking has been applied to the problems that exist within communities such as humanity, health and education issues. These projects are currently called a variety of things by different people; 'design for the greater good', 'design for social change' 'design that makes a difference' or just 'social design'. The titles vary, but there is a common theme of doing design for the public good.

SOCIAL DESIGN PROJECT SCOPE

The term social design can conjure up assumptions about the type of work or types of projects. This is because designers already have a great history in social design work, especially in areas like social activism. The scope of social design projects has broadened in recent years and continues to do so. Several extensive resources are available, particularly online, with case studies of graphic design social community based project work.

INSIDE OR OUTSIDE ORGANISATIONS

Work in social areas, like commercial work, can be situated within or outside organisations. Designers can initiate and contribute ideas without client commission.

OBSERVATION : THE SCOPE OF SOCIAL DESIGN PROJECTS

Question : What is a designer doing that for?

Observation : From the beginning of my personal journey I have met a large number of people who have seemed very sceptical of my quest. Without fail each time I have explained aspects of my social project design work I have received surprised looks. My audience were quite clearly contemplating the question 'why is a graphic designer doing that?'

Although I am now able explain my practical project work a lot better than I used to, I am still at a lost for a succinct project description, such as 'I design logos and brochures'.

'Design for goodness sake' would begin to provide some answers to the surprised looks. It should also provide those interested in tackling similar projects with an understanding of problem scope and methodological process.

USEFUL RESOURCES

- Adobe Foundation & World Studio projects. **Design ignites change.** (website)
- SocialDesignSite.com. **We cannot not change the world. Fostering a discourse on social design.** (website)
- DESIGN 21: Social Design Network. **Better design for the greater good.** (website)



DOMAINS & DISCIPLINES | WHERE TO USE YOUR SKILLS



DOMAINS OF SOCIAL DESIGN

This diagram shows some areas where social design project opportunities can be found. Projects addressing issues in these domains may in many cases attract government or non-governmental funding. Within each one of these broad domains a wide range of issues can be identified and refined into project opportunities.

BY ANY OTHER NAME

There are a number of terminologies used to describe social design projects, the following list provides a few key search terms useful for tracking down project examples...

- Social design
- Design for change / social change
- Socially responsible design
- Design for the greater good

TAKING A SERVICE DESIGN APPROACH

The last two decades have seen the emergence of a new area of study and practice in the field of design, Service Design. Service Designers employ a multidisciplinary approach to design, combining several traditional design skills with additional skills such as ethnography and user participation. By using a holistic and participatory approach to problem solving a service designer focusses more on the overall design process and the users perspective, rather than just the end products. Borrowing the approach and methods from service design is useful in social design endeavours.

USEFUL RESOURCES

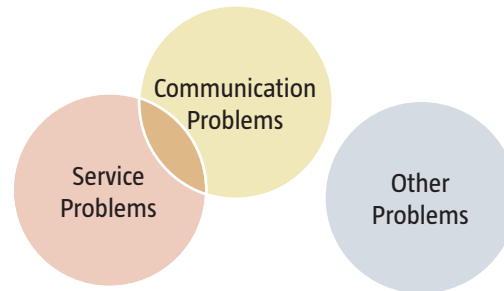
- ➔ Andrew Wootton's diagram in > Design for the surreal world? A new model of socially responsible design. (Paper)
- ➔ ➔ ➔ Stefan Moritz. Service design - Practical access to an evolving field. (Thesis)
- ➔ IDEO. Human-Centered Design Toolkit. (Digital Booklet)

UNDERSTANDING PROBLEMS | WHAT YOU FIND MIGHT



IDENTIFYING APPROPRIATE TYPES OF PROBLEMS

We are surrounded by product and service problems in our everyday daily lives both big and small, and varying in level of complexity. However, narrowing down an issue to address within a social domain can be a challenge in itself. Ensuring that the problem is one that a designer's skills are well suited for adds to the challenge.

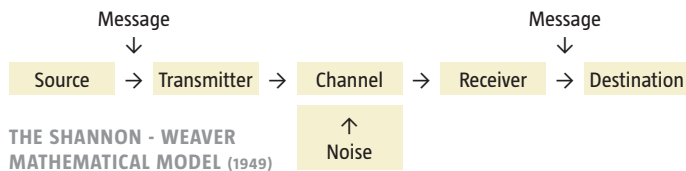


COMMUNICATION THEORY

The more commonly discussed communication theories by graphic designers are those of a semiotic nature, that is how messages are constructed of signs which readers produce meaning from. While semiotics are significant perhaps the more important communication theories for social design projects are those concerned with process. A process driven approach allows underlying issues and barriers to communication to be identified in order that they may be addressed appropriately. The illustration below depicts an example of a useful process driven communication theory as discussed further by Shannon and Weaver in their book (see reference below).

THE TYPES OF PROBLEMS

Another step towards social design project selection can involve problem classification. A possible process for this could be to mind map the most important problems and classify these as 'information/communication', 'service' or 'other'. Information/communication problems are those that result in incomplete or incorrect data being transmitted and/or data not being transmitted to the correct audience. Service problems result from the existing services not working, catering or being available for the right audience.



USEFUL RESOURCES

- Deborah Adler. [Target ClearRX case study](#). (Website)
- The RED team (Design Council UK). [The diabetes agenda: new services for type 2 diabetes](#). (Website/article)
- Shannon & Weaver. [The Mathematical Theory of Communication](#). (Book)



DESIGN SKILLS IN USE | HOW TO USE YOUR SKILLS



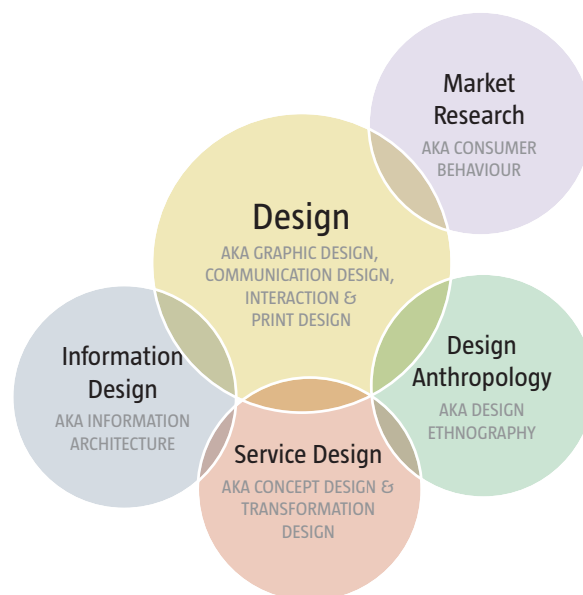
IN WHAT WAYS CAN YOU USE YOUR SKILLS?

In section two of this booklet a range of opportunities found within projects is provided. These explore *where*, *when* and *how* design skills and methods can be used in social design projects;

- Creating visuals for clarity
- Developing research methods & tools
- Being involved in gathering research data
- Illuminating & illustrating problems
- Creative ideas / ideation & developing end products
- Information literacy

Design as a practice has many cross-overs and boundary ambiguities. As the scope of design expanded over the last three decades the old disciplinary boundaries blurred. One exciting aspect of this is the chance to push design practice into new areas and to transfer skills and methods.

Many of the ideas and examples provided in this booklet are examples of this expansion. The diagram to the right illustrates the boundaries explored within this booklet, no doubt there are plenty more beyond this collection.



It's just design for goodness sake 🙌 9



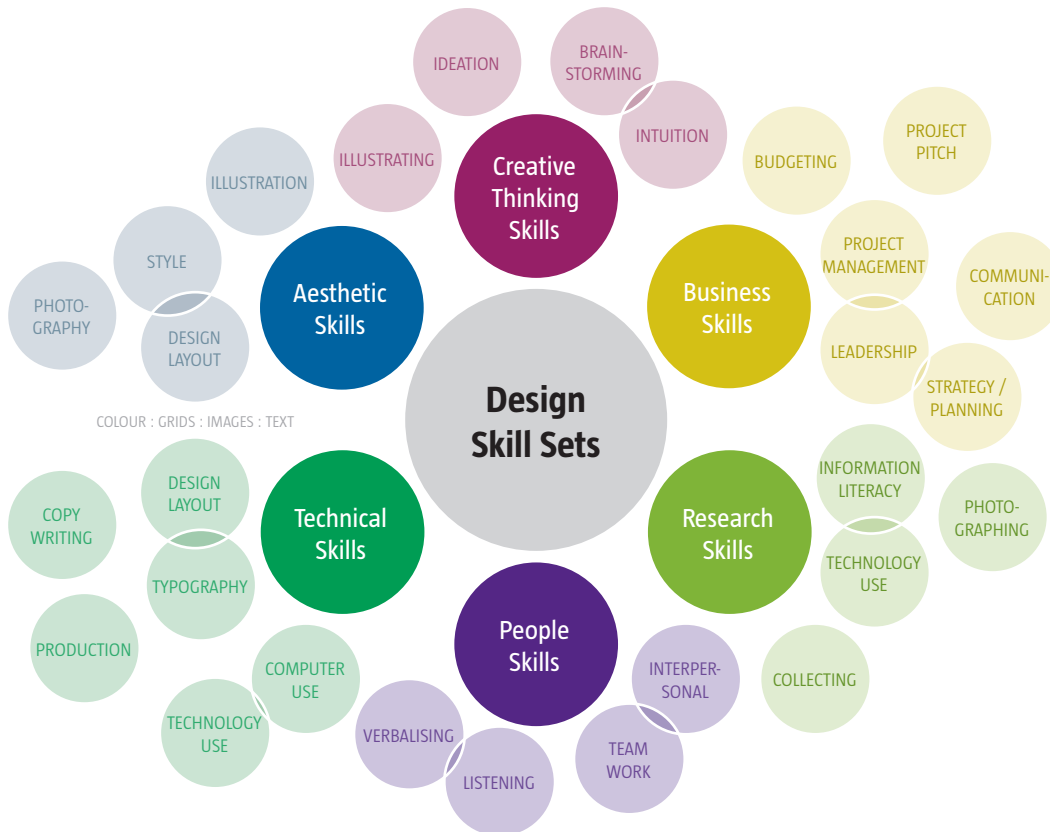
DESIGN SKILLS & METHODS | THE SKILLS YOU HAVE



WHAT ARE THE SKILL AND METHOD SETS NEEDED?

The skill and method sets that designers possess vary, due to different disciplinary focusses and individual personal experiences. However, there are generic skill sets that most designers utilise. The following diagram attempts to map these out.

This collection of skills and methods are referenced in the following pages in the discussions about social design projects.



THE OPPORTUNITIES THAT EXIST | YOUR SKILLS FOR GOOD

A WAYS & SKILLS OPPORTUNITY MAP

This opportunity map provides details of the ways various design skills and methods may be used within social

design projects. Page numbers reference the location in this booklet where more information is provided.

KEY	PROJECT PHASES	IN WHAT WAYS	SKILLS OR METHODS
C Creative Thinking Skills	Project initiation	Identifying project opportunities p.13	C T A R B P
T Technical Skills		Creating proposal visuals p.17	C T A R B P
A Aesthetic Skills		Creating visuals for funding applications p.17	C T A R B P
R Research Skills	Research methodology	Searching for research methods p.18	C T A R B P
B Business Skills		Creating research methods p.14	C T A R B P
P People Skills		Designing research tools p.14	C T A R B P
	Participant recruitment	Designing participant recruitment tools p.15	C T A R B P
		Designing recruitment advertising p.15	C T A R B P
	Gathering data	Designing data collection tools p.15	C T A R B P
		Collecting data p.15	C T A R B P
	Collating data / analysing data	Designing data analysis method or tools p.15	C T A R B P
		Identifying opportunities in data p.13	C T A R B P
		Creating visuals that illustrate problems p.16	C T A R B P
		Identifying innovative idea directions p.16	C T A R B P
	Designing prototypes	Creating prototype or scenario visuals p.17	C T A R B P
		Designing ideas or concepts p.17	C T A R B P
		Searching for similar concepts p.18	C T A R B P
		Designing prototypes & products p.17	C T A R B P
	Presentation/pitch	Designing product launch materials p.17	C T A R B P
		Creating visuals for funding applications p.17	C T A R B P

SPOTTING PROBLEMS | HOW YOU CAN SPOT PROBLEMS

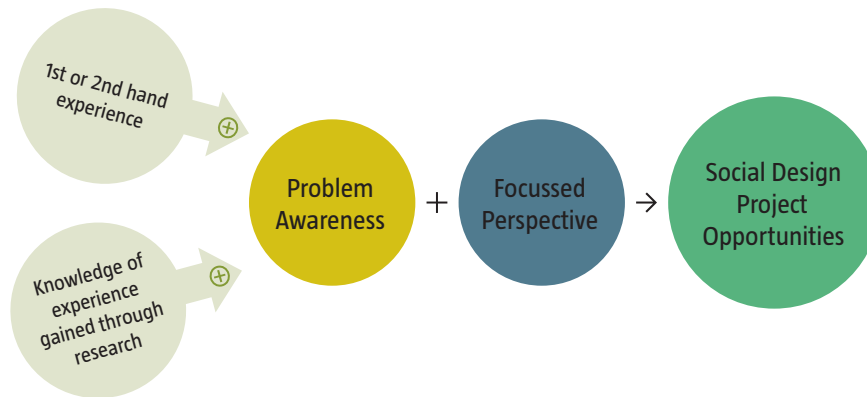


EXAMPLE : A TRAVEL INSURANCE CLAIM FORM

Question : What helps a designer to spot problems?

Story : My mother needed to fill in an insurance form to make a travel insurance claim. Although she did start, the form remained incomplete for three weeks. The problem? She was unsure how to fill the form out. I sat down with her to help, it took me (a designer of forms) three passes to begin to understand the requirements (her doctor also needed a new copy of his section after filling out the first copy incorrectly).

Observation : Now you could argue the form was strategically designed very well by the company - it probably stopped clients pursuing claims. However the more important observation was that I recognised this scenario as an example of a process communication problem, when previously I would not have made that connection. I spotted this because of a shift in focus. Rather than looking for semiotic problems as I would have previously (the form's layout), I was noticing communication process problems (the form's purpose).



FINDING SOCIAL DESIGN PROJECTS

Identifying projects to work on can in itself be a daunting and tricky task, especially as designers are used to having others directly present them problems. Successfully spotting problems can be enhanced by two interconnected components – being exposed to the experience of a problem and perspective of looking for a communication/service problem opportunity.

- Problem awareness = To personally be exposed to a problem experience, to hear of experiences through others or to hunt for experiences through research.
- Focussed perspective = Understanding the concept of communication, information or service problems, combined with a raised interest in discovery.

DEVELOPING RESEARCH METHODS & TOOLS



RESEARCH METHODOLOGY

CREATING RESEARCH METHODS **C**

Creative thinking can be a useful design skill to employ when developing the research approach or methodology. Likewise these skills can be useful when either there are no appropriate research methods for the task at hand or an existing method needs refinement. A designer's skills can be especially useful here when combined with good knowledge about research methods.

DESIGNING RESEARCH TOOLS **C T A R B**

The term 'research tools' used here refers to items such as photo journals, survey forms, online questionnaires and so on, or the tangible tools used to gather research data. From creative thinking to text layout, designers can make these tools useful, usable and enjoyable to use.

OBSERVATION : A SIGNIFICANT OPPORTUNITY

Comment : In my experience the opportunities for a designers to get involved in the research projects and develop research methods is the most salient observation. Significant opportunities exist to improve research through design thinking and design skills. In addition to this there seems further opportunities to improve research findings by promoting visual research methods.

Dream lunch box checklist form

Used with permission: © Leigh Parker & Emma Dresler-Hawke.

EXAMPLE : DESIGNING RESEARCH TOOLS **C T A R B**

Question : How do you find out what kids would choose for their lunch boxes?

Discussion : This study examined childrens' awareness of healthy food choices by investigated which food groups children would choose for their own lunch-box. A visual method was designed that ensured kids could recognise and indicate the items they would include with ease and accuracy from a large variety of possible options. Checklists were used in combination with a series of food charts that contained photographic references. Results indicated that children understand that fruit and vegetables are healthy, but that they do not necessarily translate this knowledge into behaviour.

USEFUL RESOURCES

- Roberta Tassi. *Service Design Tools*. (Website)
- Stefan Moritz. *Service design - Practical access to an evolving field*. (Thesis)

BEING INVOLVED IN GATHERING RESEARCH DATA



DISCUSSION : COLLECTING DATA R P

Question : Are there benefits to designers doing user research?

Discussion : Collecting data can be a time consuming and expensive process. Involving designers in data collection can have financial downsides. However, designers bring creative thinking and technical skills to the analysis of research data. These skills help to identify both problems and possible solutions from the data. By getting involved in the collection of data

designers will have a greater understanding of the problem and the people involved, meaning any solutions developed at the end will be grounded, rather than heavily reliant on intuition.

Having designers involved directly with other team members throughout a social design project also gives those involved an insight into the skills which designers bring to the table, extending the possibilities.

PARTICIPANT RECRUITMENT

DESIGNING PARTICIPANT RECRUITMENT TOOLS C T

Academic based projects that involve human participants for interview or observational research, will typically go through an ethics approval process. Participant recruitment requirements involve providing information sheets and consent forms to recruits. Existing examples of these sheets and forms often have the appearance of being designed with content rather than communication in mind. Design improvement opportunities exist in both the visual layout and content communication aspects of these ethics forms. Design forms ensure participants can understand what their involvement might entail.

DESIGNING RECRUITMENT ADVERTISING C T A

Creating an advertising plan and various advertising components are tasks commonly tackled by designers. These skills can be easily transferred into helping gain the attention and interest of potential research participants.

GATHERING DATA

DESIGNING DATA COLLECTION TOOLS C T A R

In addition to designing the research tools used directly within the research methods, designer can contribute skills in designing to the overall format of data collection.

COLLECTING DATA R P

As keen observers, listeners and researchers, designers can easily assume and perform the roles of data collectors. Having designers present during data collection can contribute in other ways too (see above).

COLLATING ANALYSING DATA

DESIGNING DATA ANALYSIS METHOD OR TOOLS C T A R

When faced with large quantities of information designers normally begin to look for ways to categorise and format raw materials.

USEFUL RESOURCES

→ → Noble, I., & Bestley, R. (2004). *Visual research: An introduction to research methodologies in graphic design.* (Book)

ILLUMINATING & ILLUSTRATING PROBLEMS



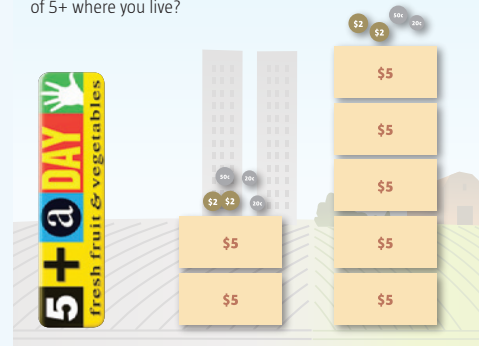
DISCUSSION : *CREATING VISUALS THAT ILLUSTRATE PROBLEMS* C T A P

Question : What type of visuals could illustrate problems?

Discussion : Information design, a discipline within graphic design, is a practice concerned with transforming data into information. By illustrating facts and figures information design visual can both explain and illuminate problems. Several comprehensive resources exist providing both guides to creation and catalogues of examples. The example provided here illustrates the financial difference between buying fresh fruit and vegetables in a city verses in an isolated rural community.

Illustrating cost differences
Credit: Leigh Parker

What is the minimum cost of 5+ where you live?



COLLATING ANALYSING DATA

CREATING VISUALS THAT ILLUSTRATE PROBLEMS C T A P

Creative thinking, technical and art skills can all be used to creatively visualise the surprising relationships and compelling data in social design projects. Visuals illustrations might be useful for the team to use in discussion, to illustrate directions or to take back to the community who will use any designed end products for further input.

Data analysis visuals are useful in an academic or commercial realms. Project visuals can be included into papers, conference posters or presentations.

IDENTIFYING INNOVATIVE IDEA DIRECTIONS C

Design concepts, ideas or solutions can come to a designer at any stage throughout project work through the use of creative thinking skills. While involved in the processes of conducting, analysing and understanding research data insights and ideas might not only surface, but may also affect a project's direction.

USEFUL RESOURCES

- David McCandless. **Information is Beautiful.** (Book)
- Jenn Visocky O'Grady. **The Information Design Handbook.** (Book)
- Good (company). **Infographics.** (Website section)
- **Wir Hier: The Intelligent Service System.** (Project example)

CREATIVE IDEAS / IDEATION & DEVELOPING END PRODUCTS

PROJECT INITIATION

CREATING PROPOSAL VISUALS **C T A**

Designers have the ability to take ideas that are tricky to verbalise in words, due to either complexity or size, and make those ideas easy to interpret as a visual. This can help when trying to identify or confirm project opportunities. By creating visuals designer can help explain to clients or organisation what it is they would like to do or have to offer.

CREATING VISUALS FOR FUNDING APPLICATIONS **C T A**

Design materials can be created in order to assist with funding applications for social design research and design projects.

DESIGNING PROTOTYPES

Each of these three opportunities can easily be identified as designer activities. They are in essence the core activities of design and can easily be transferred into social contexts.

CREATING PROTOTYPE OR SCENARIO VISUALS **C T A R**

DESIGNING IDEAS OR CONCEPTS **T R**

DESIGNING PROTOTYPES & PRODUCTS **C T A**

PRESENTATION/PITCH

DESIGNING PRODUCT LAUNCH MATERIALS **C T A R B P**

When a product is bought to market designers tend to be brought in to help with the marketing and promotion material. This approach can be transferred into social project product launches.

CREATING VISUALS FOR FUNDING APPLICATIONS **C T A R B**

At the completion of social design projects further funding may be required to bring the end products into fruition. Again, designers can assist by creating visuals of key concepts, by preparing visuals of the end products and by preparing the funding application materials.

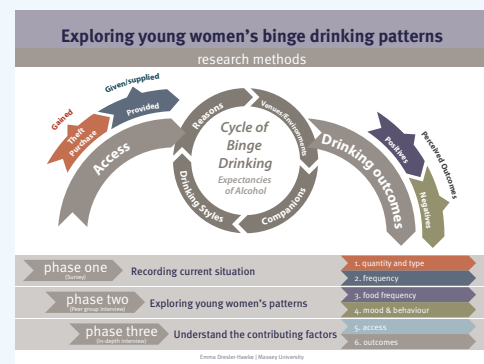
EXAMPLE : CREATING PROPOSAL VISUALS **C T A**

Question : How can visuals contribute to research plans?

Example : This example is a research methods diagram from a project that explores binge drinking patterns in young women. Useful in the funding application, the bigger contribution this visual made in the project was during early research planning discussions. It was helpful in presenting the research plan, explaining the phases and research methods to the many parties involved (ALAC, District Health Board, local secondary schools, etc.).

Research concepts and phases diagram

Used with permission: © Leigh Parker & Emma Dresler-Hawke.



INFORMATION LITERACY



WHAT IS INFORMATION LITERACY?

This is a term used to describe an individual's ability to access, critically evaluate, categorise and use information derived from a variety of different sources.

Designers and design students spend large amounts of time hunting down, sifting through and working with information. One particular area of information literacy comes in the form of internet use. A key component of the professional design process is the ability to understand how and where to search for things they require, how to judge authenticity and how to incorporate their findings as needed.

RESEARCH METHODOLOGY

SEARCHING FOR RESEARCH METHODS T R

By using internet searching skills designers may be able to contribute towards research methodology development by finding useful resources, such as examples of existing research tools and descriptions of research methods.

DESIGNING PROTOTYPES

SEARCHING FOR SIMILAR CONCEPTS T R

A benchmark analysis of similar solutions can be performed by designers at any stage of a project, but most importantly at the start of the design process. Benchmarking analysis not only provides insights into what types of similar products or services are already available, but can also help provide some sense of what solutions might work or not work and will confirm there is an opportunity or a gap.

The content and form of gathered resources can be critiqued for usefulness, usability and desirability. This can contribute towards specification guidelines, especially in areas such as how resources relate to the important project criteria, such as cost of implementation, service or community for example.

A SOCIAL DESIGN PROJECT CASE STUDY →

COST AS A BARRIER TO EATING FRUIT AND VEGETABLES

This case study is one of my social design projects, design work that focussed on the cost barrier that prevents or limits isolated rural residents from accessing fresh fruit and vegetables. There are some tips, tricks and insights here that you might find useful for your own endeavours.

PROJECT INITIATION

IDENTIFYING PROJECT OPPORTUNITIES

The public perception of a graphic designer's role is, to a certain extent, at odds with social projects. Throughout the process of identification, of this my first social design case study project, I found myself regularly explaining: 'Yes, I do create business cards, logos and brochures – however, I want to do something different with my skills'. The first, and only, solution I used to overcome this perception challenge was a designed visual presentation (in PDF format), in which the quest was graphically illustrated. This presentation was taken to meetings on a computer and presented to the audience. Having a visual presentation proved to be an effective solution, by seeing visual examples my audience understood what I was talking about. Both the facial expressions and the questions asked by the audience after showing the visuals demonstrated that they had a much better understanding of the project.

CREATING VISUALS FOR FUNDING APPLICATIONS

A 14 page booklet was designed that accompanied a successful funding application. The image top right shows a few visuals from the pages of that booklet.



Pages from the funding application

Used with permission: Dean Whitehead & Emma Dresler-Hawke.

RESEARCH METHODOLOGY

SEARCHING FOR RESEARCH METHODS

Cost barrier as an issue needed to be investigated from two perspectives, that of local businesses or services and from the perspective of rural residents affected by the barrier. Taking a service design approach towards the project was logical, because service design methods have a strong emphasis on experience. The service design community are also very good at publishing the tools and methods that they use, making it easy to search and discover appropriate research methods.

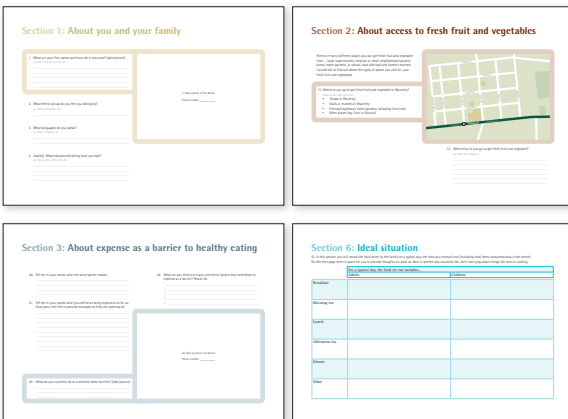
A SOCIAL DESIGN PROJECT CASE STUDY cont.



→ RESEARCH METHODOLOGY

DESIGNING RESEARCH TOOLS

Three service design research methods were used in this project; blueprinting, photo journals and directed storytelling. The printed tools needed for all methods were prepared using technical computer and layout skills. The image below shows a few pages from the photo journal.



Pages from the Photo Journal

PARTICIPANT RECRUITMENT

DESIGNING RECRUITMENT ADVERTISING

Owners of the businesses involved in the research were approached directly and in person. However, to recruit rural residents as participants a small advert was designed and displayed locally, both on notice boards and in newsletters. Copy writing and technical layout skills were used.

GATHERING DATA

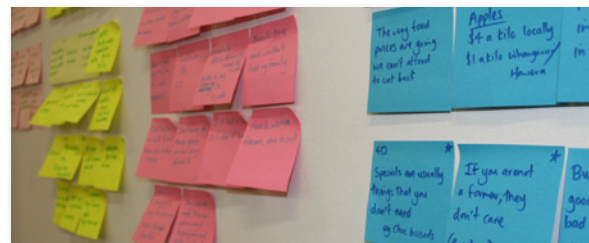
COLLECTING DATA

I was directly involved in data collection alongside other team members. It was time consuming, there's no doubt about it. However, it was very worthwhile providing several insights into the problem as well as a much deeper connection and understanding of the target audience; for example their IT access / competency, language use and emotional responses to the situation they were in. Being involved in all stages of the process allows designers to develop a strong sense what is really needed, avoiding a reliance on intuition or assumption.

COLLATING DATA / ANALYSING DATA

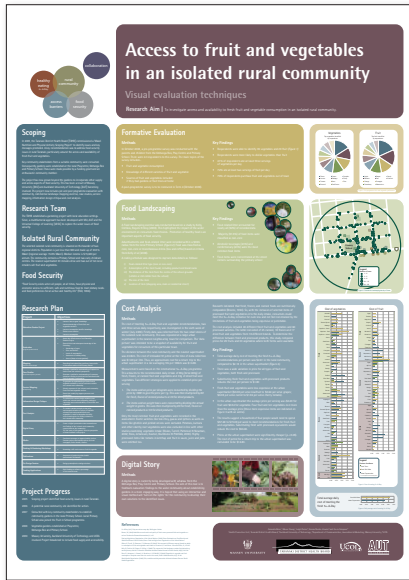
IDENTIFYING OPPORTUNITIES IN DATA

Designers are visual people and highly visual approaches to data collection and analysis engage them. The image below shows the post-it-note approach used in interview analysis and the service blueprint. Analysis was much quicker than anticipated and enjoyable due to the visual nature.



Post-it-note analysis of interview notes

A SOCIAL DESIGN PROJECT CASE STUDY cont.



Health Conference Poster Presentation (A1 size).

Brien, A., Dresler-Hawke, E., Parker, L., Simpson, C., & Young, M. (2009, September).

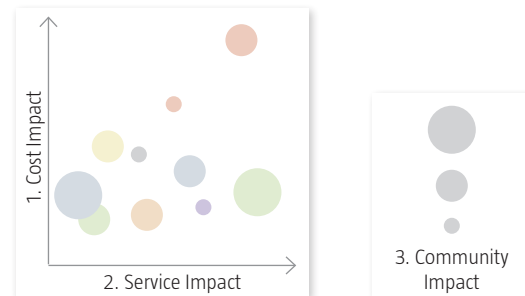
CREATING VISUALS THAT ILLUSTRATE PROBLEMS

The cost barrier case study project had regional Health Board support and was conducted as an academic project. Consequentially key findings were presented at both health and academic conferences. The image above is of a conference poster. Technical design and art skills have been used to bring order and visual interest to the large quantity of information. Visuals down the right hand side of the poster depict the problems identified during data analysis.

DESIGNING PROTOTYPES

DESIGNING IDEAS OR CONCEPTS

Creative thinking skills were used to come up with a variety of possible ideas, concepts or directions that solutions could take. Each idea responded to the three key themes found in the data analysis; cost (fresh product being too expensive), service (the service options not catering to economically disadvantaged rural residents) and community (fostering community spirit to enhance the possibility of change). Technical and art skills were used to create a matrix to help evaluate the ideas and directions, similar to the example below.



Idea evaluation matrix tool.

SEARCHING FOR SIMILAR CONCEPTS

Before starting the design process a search was undertaken to find what was already available or used elsewhere. Internet research skills were used to quickly locate information and digital examples of similar solutions. Benchmarking also provided insights into what solutions might work or not work and confirmed there was an opportunity or a gap.

A SOCIAL DESIGN PROJECT CASE STUDY cont.



In your [IRC] Local Store

5+ Best Buys : Winter

5+ @ DAY for less than \$1 per day
Fresh Fruit & Vegetables

During the winter months these 10 items are the cheapest fruit and vegetable items you can buy in our store.

Choose 3 servings of these vegetables...

Carrots	Pumpkin	Squash	Swede	Frozen Beans

Choose 2 servings of these fruits...

Kiwifruit	Orange	Pear	Pineapple

Frozen, canned and dried fruit and vegetables are as good for you as fresh, but cost less saving you money.

Look out for the 5+ Best Buy labels around the [IRC] Local Store to find these cheap items.

5+ Best Buys

Look out for next seasons best buys...

Winter Spring Summer Autumn

IRC Mini Mart Logo



5+ Best Buys
5+ Best Buys
5+ Best Buys
5+ Best Buys

Winter Vegetable Price per Serve

10c - 25c	25c - 35c	35c - 50c	50c - 80c	80c - \$1.50 +
Cabbage	Celery	Beetroot	Broccoli	Avocado
Carrot	Leek	Brussels Sprouts	Capicola - Yellow	Capicola - Green
Cauliflower	Beans	Wendy	Courgette	Capicola - Red
Onion	Corn	Capicola	Mushroom	Corn
Pumpkin	Silo-fry	Courgette	Spinach	Cucumber
Silver Beet	Beetroot	Mushroom	Lettuce	Lettuce
Squash	Corn	Spinach	Radish	Radish
Swede	Peas	Beans	Strawberry	Strawberry
Mixed Vegetables	Tomato	Cucumber	Orange	Orange
Peas		Mushroom	Peas	Peas

5+ Best Buys
Winter
5+ @ DAY
A fruit and vegetable serving price guide to use during winter.

5+ Best Buys is an information system consisting of in-store posters, pocket guides and shelf labels. The aim is to help customers afford 5+ a Day. It does this by raising awareness of the nutritional equivalence of process items and bringing attention to the best seasonal deals.

A collection of prototype presentation visuals.



A SOCIAL DESIGN PROJECT CASE STUDY cont.



→ DESIGNING PROTOTYPES

DESIGNING PROTOTYPES & PRODUCTS

A range of design skills were used in combination to create the '5+ Best Buys' solution, presented on the left page. Creative thinking was used throughout the development of this prototype, from the initial inspiration and idea, through to problem solving various aspects as to how the system would work. Technical and art skills were used to create the various product components. 5+ Best Buy components are all printed material, designed and constructed on the computer using Adobe software. Research skills were employed to track down the various graphic elements used. For example a free online New Zealand resource was found that provided access to high quality fresh vegetable images. Business skills such as project management, strategy and budgeting were used, especially as the cost of implementation was an important consideration.

PRESENTATION/PITCH

DESIGNING PRODUCT LAUNCH MATERIALS

The illustration on the left page is made up of the visuals used in the prototype pitch. The 5+ Best Buy components visuals were created from the prototype files and a photo from the initial research was used to create the scenario illustration.

DISCUSSION : OTHER INSIGHTS AND TIPS

Road blocks : I experienced four main barriers during the journey of this project; 1) hunting for a project, 2) the ethics application, 3) rural resident participant recruitment and 4) moving forward from phase to phase. Here is what I have learnt...

1) Hunting for projects : I'll be taking this booklet with me as a tool to explain what I mean by social design project work.

2) Ethics application : Ethics applications will be done as small components - method by method - as opposed to a big all inclusive application. Hopefully this will ensure the project can start sooner, rather than experiencing ethic approval delays.

3) Participant recruitment : I stalled regularly before cold calling recruits, because I had feeling of being 'a fraud' - what right did I as a designer have to take directly to participants?! My confidence, experience and belief in purpose will help with this in the future.

4) Moving forward : If a project is not moving forward there are several tools and techniques that can help. Social design, much like my experience of graphic design, does not necessarily follow a linear process, sometimes the way forward is taking a few steps back. 🧠



FURTHER READINGS



USEFUL RESOURCES REFERENCED WITHIN THIS BOOKLET

DIGITAL RESOURCES

- **Better design for the greater good.**
DESIGN 21: Social Design Network
www.design21sdn.com/
- **Design ignites change.**
Adobe Foundation & World Studio projects
www.designigniteschange.org/
- **Human-Centered Design Toolkit. (Digital Booklet)**
IDEO
<http://www.ideo.com/work/human-centered-design-toolkit/>
- **Infographics.**
Good
<http://www.good.is/infographics/>
- **Many Eyes.**
IBM Research and the IBM Cognos software group
www-958.ibm.com/
- **Service design - Practical access to an evolving field.**
Stefan Moritz (Thesis)
http://stefan-moritz.com/welcome/Service_Design.html
- **Service Design Tools.**
Roberta Tassi
www.servicedesigntools.org/
- **Target ClearRX case study.**
Deborah Adler
<http://www.deborahadlerdesign.com/casestudy/>
- **The diabetes agenda: new services for type 2 diabetes.**
The RED team (Design Council UK)
www.designcouncil.info/RED/health/REDDESIGNNOTES01Bolton.pdf

- **The Eight tenets of Socially Responsible Design.**
Andrew Wootton's diagram in...
Design for the surreal world? A new model of socially responsible design. (Conference Paper)
http://ead.verhaag.net/fullpapers/ead06_id176_2.pdf
- **We cannot no change the world.**
SocialDesignSite.com
www.socialdesignsite.com/
- **Wir Hier: The Intelligent Service System.**
http://www.ianlcrawford.co.uk/images/Projects/9.contradiction/Wir_Hier_Mag.pdf

PRINTED RESOURCES

- **Information is Beautiful.**
David McCandless. Collins, 2010.
- **The Information Design Handbook.**
Jenn Visocky O'Grady. F & W Media, 2008.
- **The Mathematical Theory of Communication.**
Claude E Shannon & Warren Weaver. University of Illinois Press, 1998.
- **Visual research: An introduction to research methodologies in graphic design.**
Ian Noble & Russell Bestley. AVA Publishing, 2004.



ADDITIONAL RECOMMENDED RESOURCES

DIGITAL RESOURCES

- **Concept design. How to solve the complex challenges of our time.**
Jørgen Rodsted, Danmark. Copenhagen: FORA, The Danish Authority for Enterprise and Construction's Division for Research and Analysis.
<http://www.ebst.dk/file/7661/conceptdesign.pdf>
- **The open book of social innovation.**
Robin Murray, Julie Caulier-Grice & Geoff Mulgan.
http://www.nesta.org.uk/library/documents/Social_Innovator_020310.pdf
- **Transformation Design. Red paper 02.**
Burns, C., Cottam, H., Vanstone, C., & Winhall, J. (2006).
<http://www.designcouncil.info/mt/RED/transformationdesign/TransformationDesignFinalDraft.pdf>

PRINTED RESOURCES

- **Cradle to cradle: Remaking the way we make things.**
William McDonough & Michael Braungart. North Point Press, 2002.
- **Design studies: theory and research in graphic design.**
Audrey Bennett. Princeton Architectural Press, 2006.
- **Design for the real world; human ecology and social change.**
Victor Papanek. Academy Chicago Publishers, 1985.
- **Do good design.**
David B. Breman. Peachpit Press 2008.

ACADEMIC RESOURCES

- Shostack, G. L. (1982). **How to design a service.**
European Journal of Marketing, 16(1), 49-63.
- Margolin, V., & Margolin, S. (2002). **A 'social model' of design: Issues of practice and research.** *Design Issues, 18(4), 24-30.*





ABOUT THE AUTHOR



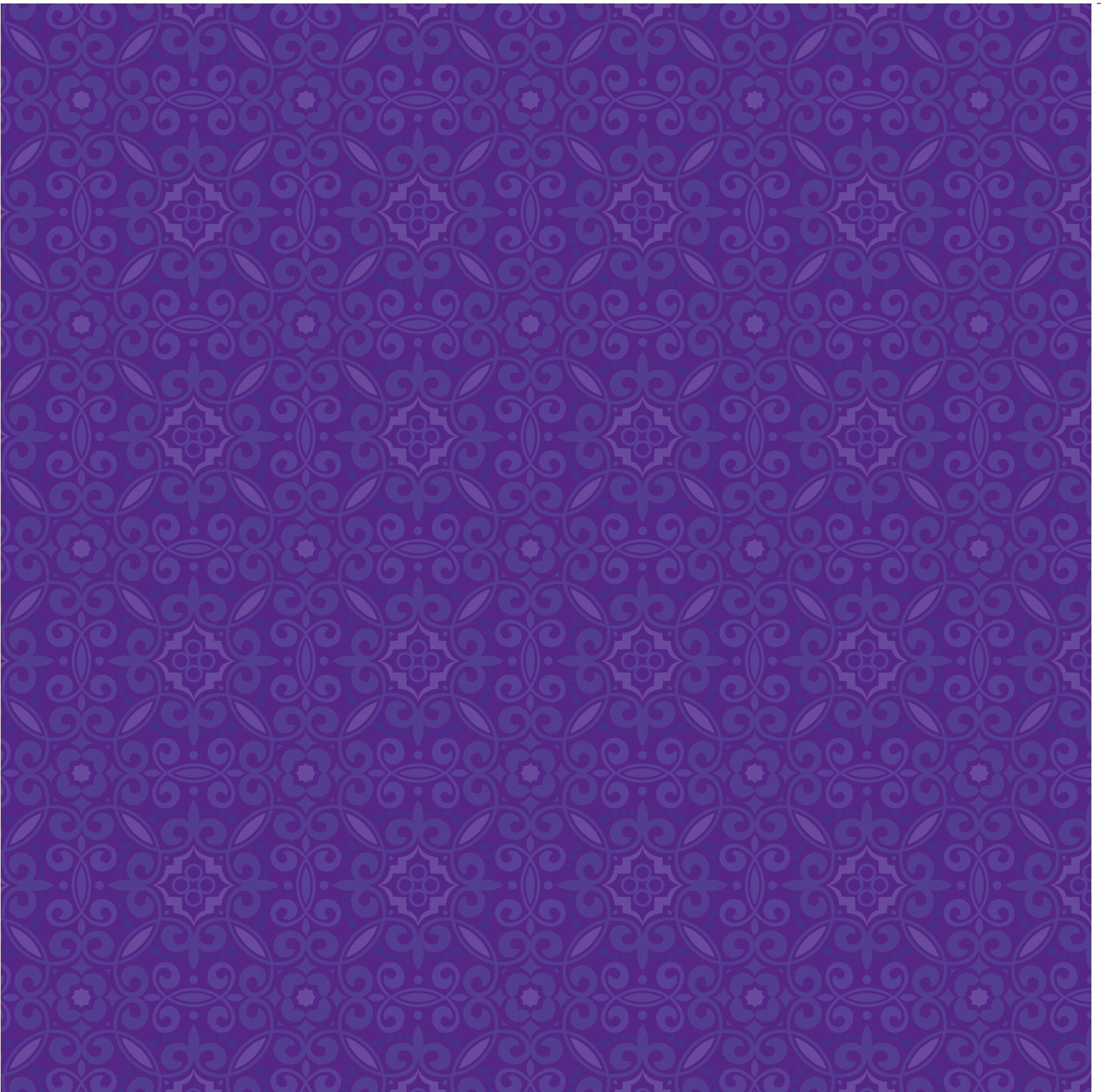
Leigh Parker has over 15 years of experience in the design industry. A graduate of the Bachelor of Design at CPIT in Christchurch, she currently teaches on the Bachelor of Applied Visual Imaging at UCOL in Palmerston North.

As a result of receiving a Fulbright Scholarship Leigh spent seven months as a Visiting Scholar at the School of Design, Carnegie Mellon University in America.

Her career to date has included a wide variety of jobs in a number of different areas, from industry to education. The roles have varied from Junior Graphic Design through to Course Leader as a design lecturer. Her design skill set includes print management, team motivation, creative direction, information design and now social and service design. Her passion is split evenly between the loves of design, teaching and research.







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