

# Australasian Journal of Market & Social Research

June 2012 • Volume 20 Number 1 • ISSN 1832 7362

## CONTENTS

The 2010 Australian Infant Feeding Survey: Effects of mode, ..... Page 9  
incentive and reminders on the response rate.

*Pramod Adhikari*

Deletion, distortion and data collection: the application ..... Page 15  
of the Neuro-linguistic Programming (NLP) meta-model in  
qualitative interviews.

*Jenny Knight*

Using social networks and Guanxi in case study research ..... Page 22  
on Australian firms doing business in China.

*Stuart Orr and Jane Menzies*

Joseph Banks (1743-1820): The market researcher whose ..... Page 34  
client was the British Empire.

*David T. Bottomley*

# Interested in becoming an AMSRS member?

The Australian Market & Social Research Society Ltd (AMSRS) is a not-for-profit professional membership organisation established to serve those practising or interested in market, economic and social research.

We have a national membership of over 2,000 researchers, marketing executives, market research managers and buyers, field managers, recruiters, interviewers, academics and students.

Being a member benefits those people:

- involved in or interested in market, economic, advertising or social research
- employed in the marketing or research sections of an organisation
- conducting qualitative and quantitative research
- who supervise field operations, interview or recruit participants for research projects
- who teach or study in marketing or social and market research

Membership entitlements include:

- discounted member rates to AMSRS and affiliate events
- a copy of the Annual Directory & Yearbook, and 11 copies of Research News
- regular updates on state and national industry information, developments and events
- membership certificate
- Full members are entitled to use the postnominals MMSRS (Member of the Market & Social Research Society), and vote in divisional and national elections of the AMSRS.

Note: Overseas and Student members receive different membership benefits so please check our website for full details.

All members are bound to observe the AMSRS Code of Professional Behaviour, which covers both ethics and standard conditions of conducting and reporting scientific research.

**JoinToday**

## Contact us at:

Membership,  
Australian Market & Social Research Society  
Level 1, 3 Queen Street  
Glebe NSW 2037



Phone: +61 (0) 2 9566 3100

**Or check out Membership on our website at [www.amsrs.com.au](http://www.amsrs.com.au)**

---

# AUSTRALASIAN JOURNAL OF MARKET & SOCIAL RESEARCH

## Editor

Associate Professor David Bednall - Deakin University - AMSRS member and Fellow

## Editorial Advisory Board

Susan Ellis - Melbourne Business School

Dr. Marie-Louise Fry - Griffith University

Philip Gendall - University of Otago

Lester W. Johnson – AMSRS member and Fellow  
Melbourne Business School

Pascale Quester - University of Adelaide

Liane Ringham - Inside Story – AMSRS member and Fellow

John Rossiter - University of Wollongong – AMSRS member and Fellow

Geoffrey Soutar - University of Western Australia – AMSRS Life member

Jill Sweeney - University of Western Australia – AMSRS member

AJMSR is published by the Australian Market & Social Research Society  
Copyright 2012. ISSN 1832 7362

Australian Market & Social Research Society  
Level 1  
3 Queen Street  
Glebe NSW 2037  
Australia

Phone: +61 (0) 2 9566 3100  
Fax: +61 (0) 2 9571 5944  
Email: [publications@amsrs.com.au](mailto:publications@amsrs.com.au)  
Web: [www.amsrs.com.au](http://www.amsrs.com.au)

---

## Australasian Journal of Market & Social Research

The Australasian Journal of Market & Social Research (AJMSR) is the official journal of the Australian Market & Social Research Society (AMSRS). It is published twice a year in June and December.

All members of the AMSRS receive a complimentary subscription to AJMSR as part of their membership.

### Submissions

Original papers are invited. There is an editorial policy to ensure that a mix of theoretical and practical papers is presented. Papers should be of some relevance to at least a segment of the population of practicing market or social researchers. Purely academic marketing papers are probably more suitable elsewhere. All papers are refereed by independent assessors.

Authors are required to supply their articles electronically in Microsoft Word format, doubled spaced with article references in Harvard referencing style. Diagrams and figures also need to be provided electronically. In writing papers, authors should consider the style of articles in previous issues.

From this December issue onwards all editions of AJMSR will be referenced by EBSCO, an on-line database of journal articles accessible by researchers worldwide. As a writer we need your permission to enable this to occur. Could you please indicate your agreement to your article being referenced in this way when you submit it for publication.

Contributors of paper will receive an electronic copy of the issue in which their article appears.

AJMSR is an open publication. All expressions of opinion are published on the basis that they are not to be regarded as expressing the official opinion of the Australian Market & Social Research Society. The AMSRS accepts no responsibility for the accuracy of any opinions or information contained in this publication and readers should rely on their own enquiries in making decisions.

All papers for submission should be forwarded to:  
Dr. David Bednall, Associate Professor  
School of Management and Marketing  
Faculty of Business and Law  
Deakin University (Burwood)  
221 Burwood Highway  
Burwood VIC 3125 Australia  
Email: dbednall@deakin.edu.au

### Contact details

All enquiries regarding AJMSR matters should be directed to:

Australasian Journal of Market & Social Research  
Australian Market & Social Research Society  
Level 1, 3 Queen Street  
Glebe NSW 2037 Australia  
Phone: +61 (0) 2 9566 3100  
Fax: +61 (0) 2 9571 5944  
Email: publications@amsrs.com.au

Copies of the articles in AJMR may be made for personal or classroom use, without charge and with the publisher's consent. Copying for any other purpose must first be approved by the publisher.

AMSRS recognises the contribution of Associate Professor David Bednall and Deakin University.

---

## Advice to Authors<sup>1</sup>

This journal publishes refereed:

1. Research articles
2. Research Notes
3. Case Studies

and opinion pieces (non-refereed).

### Submissions

Submissions are only accepted by electronic means. Please see [www.amsrs.com.au](http://www.amsrs.com.au)

### Length

*Research Article* submissions should generally not exceed 6,500 words of text, excluding figures, tables, and references. Appendices are not encouraged.

*Research Notes* should generally be under 4,000 words of text, excluding figures, tables, and references. Appendices are not encouraged. They may be shorter reports of single findings, useful extensions or replications of previous research, or other additions to the literature that warrant publication without the more extended theoretical development or detailed analysis characteristic of regular articles.

*Case studies* should generally be under 4,000 words of text, excluding figures, tables, references and appendices. Appendices may be included if they contain reports of studies or other data used to support the case.

### Research Article structure

These guidelines are for regular research article submissions. Authors who want to use a different structure are advised to contact the editor before submission. Innovation is encouraged so long as there is a clear benefit to the readers of the article.

### Subdivision - numbered sections

Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to "the text". Any subsection may be given a brief heading. Each heading should appear on its own separate line.

### Introduction

State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

### Theory/Conceptual

A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for the research. Empirical studies should conclude this section with hypotheses or research questions. Non-empirical papers are encouraged to expand this section to give adequate background and treatment of the issues.

### Material and methods

Where the work is an empirical study, provide sufficient detail to allow another researcher to reproduce the study. Methods already published should be indicated by a reference. Only relevant modifications should be described.

### Results and Discussion

Results should be clear and concise. Discussion should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

### Conclusions

The main conclusions of the study should be presented in a short Conclusions section. Implications for further research, limitations and implications of the research for industry practice must be given.

### Appendices

Appendices are not encouraged.

### Table and Figure Titles

These should appear above the Table or Figure in bold and be numbered consecutively. Supply titles separately, not embedded in the figure or table. Titles should be brief (preferably under 10 words)

### Math formulae

Present formulae using the Word equation editor. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

<sup>1</sup> These guidelines have been extensively adapted from the submission guidelines for the *Australasian Journal of Marketing*, see <http://www.elsevier.com/wps/find/journaldescription.authors/717638/authorinstructions> and *Public Opinion Quarterly*, see [http://www.oxfordjournals.org/our\\_journals/poq/for\\_authors/general.html](http://www.oxfordjournals.org/our_journals/poq/for_authors/general.html)

---

### **Footnotes**

Footnotes should be avoided except in Tables and Figures. Indicate each footnote with a superscript lowercase letter.

### **Essential title page information**

#### **Title**

Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae.

#### **Author names and affiliations**

Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present each author's affiliation (where the actual work was done) after their names.

#### **Corresponding author**

Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. Ensure that your e-mail address and the complete postal address are provided.

#### **Abstract**

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

#### **Keywords**

Immediately after the abstract, provide a maximum of 6 keywords, using UK English spelling and avoiding general and plural terms and multiple concepts (avoid, for example, "and", "of"). These keywords will be used for indexing purposes.

#### **Abbreviations**

Define abbreviations that are not standard in this field in the text. Ensure consistency of abbreviations throughout the article.

#### **Acknowledgements**

Collate acknowledgements in a separate section at the end of the article after the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals

who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

#### **Format**

The default is single spaced, A4 format with 2.54cm margins on each side. The use of colour is acceptable for graphics and figures, but should otherwise be used sparingly. Its use is intended to make each article easier to follow rather than to cater to aesthetics or fashion. It is anticipated that case studies will include colour photographs and by arrangement, videos.

#### **Use of word processing software**

Documents should be submitted in Microsoft Word format. Keep the layout of the text as simple as possible. Please do not use the word processor's options to justify text or to hyphenate words. Please do not use multiple columns of text. However, do use bold face, italics, subscripts, superscripts etc. To avoid unnecessary errors you are strongly advised to use the Word "spell-check" and "grammar-check" functions. The AJMSR uses UK English as its preferred style for spelling.

When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. Only horizontal lines should be used in Tables. Figures should be embedded in the document. If graphics are used, please also provide a separate file with your submission. If you are not the copyright owner of material you have included, you must evidence your permission to use this material.

#### **Artwork**

##### **Electronic artwork**

- Make sure you use uniform lettering and sizing of your original artwork.
- Save text in illustrations as "graphics" or enclose the font.
- Only use the following fonts in your illustrations: Arial, Courier, Times, Symbol.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately.
- Produce images near to the desired size of the printed version.
- Submit each figure as a separate file.

---

### **Please do not:**

- Supply files that are optimised for screen use (like GIF, BMP, PICT, WPG); the resolution is too low;
- Supply files that are too low in resolution;
- Submit graphics that are disproportionately large for the content.

### **Colour artwork**

Please make sure that artwork files are in an acceptable format (TIFF, EPS or MS Office files) and with the correct resolution.

### **References**

The use of Endnote™ bibliographic software is recommended. The APA Sixth Edition is the standard used for referencing.

### **Citation in text**

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be referenced in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either "Unpublished results" or "Personal communication". Citation of a reference as "in press" implies that the item has been accepted for publication.

### **Web references**

As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references should be included in the reference list.

### **Reference style**

Text: Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Sixth Edition, ISBN 978-1-4338-0561-5. Journal names should not be abbreviated. Use journal issue numbers only where these are necessary to identify the source of the article.

List: references should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in

the same year must be identified by the letters "a", "b", "c", etc., placed after the year of publication.

### **Examples:**

#### *Reference to a journal publication:*

Brennan, M. & Charbonneau, J. (2010). The effect of an incentive (chocolate) and a replacement questionnaire on sample composition, item non-response and response distribution in a mail survey. *Australasian Journal of Market and Social Research*, 18(2), 19-31.

#### *Reference to a book:*

Strunk, W., Jr., & White, E. B. (1979). *The elements of style*. (3rd ed.). New York: Macmillan, (Chapter 4).

#### *Reference to a chapter in an edited book:*

Mettam, G. R., & Adams, L. B. (1994). How to prepare an electronic version of your article. In B. S. Jones, & R. Z. Smith (Eds.), *Introduction to the electronic age* (pp. 281-304). New York: E-Publishing Inc.

### **Submission checklist**

The following list will be useful during the final checking of an article prior to sending it to the journal for review. Please consult this Guide for Authors for further details of any item:

- One Author designated as corresponding Author:
- E-mail address
- Full postal address
- All necessary files have been uploaded
- Keywords
- All figure and table titles
- All tables (including title, footnotes)
- Manuscript has been spellchecked and grammar-checked
- References are in the correct format
- All references mentioned in the Reference list are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Web)

The use of a copy editor to check the text for completeness and readability is advised.

If you have further queries, please contact the editor prior to submission.

---

## Effective Research

The Research Industry Council of Australia (RICA) held the Research Effectiveness Awards in May this year. In looking at the entries for these awards, three themes became apparent. First, the industry, along with this journal, proudly wears the “social” tag as part of its work. Significant entries were produced in areas of social policy such as encouraging indigenous communities through involvement in AFL football, finding ways to encourage child care workers to return to a sector that desperately needs them, looking at the growth in divisions in wealth and understanding the plight of imprisoned asylum seekers who were rejected by Australia and of the staff required to manage them in detention. Second, we see the growth through technology in the types of research we can do, be it capturing customers as they leave a supermarket, tracking their vision as they use a service, on-line customer capture and combining market research with customer analytics to produce greater insights. Third, the industry is investing in developing its repertoire of research techniques. We see new ways to measure emotion, new segmentation approaches and a fundamental re-examination of the way we build scales as fine examples.

This vibrancy in research is to be celebrated. The current issue reflects the diversity of our international industry and its techniques and, with David Bottomley's contribution, a new perspective on our history.

Associate Professor David Bedhall  
Editor  
June 2012

# The 2010 Australian Infant Feeding Survey: Effects of mode, incentive and reminders on the response rate.

**Pramod Adhikari, Australian Institute of Health and Welfare, Canberra.**  
**Email: pramod.adhikari@aihw.gov.au**

## ABSTRACT

Minimising nonresponse in surveys is very important to improve the data quality. Numerous strategies have been implemented to minimise nonresponse rates with varying degrees of success. These include better designed survey instruments, quality of communication, multi-mode survey options, incentives, and follow-up reminders. This paper presents findings from the inaugural 2010 Australian National Infant Feeding Survey conducted by the Australian Institute of Health and Welfare, which utilised mixed-mode mail/Web survey, incentive and follow-up reminders. The findings show that the take-up rate for the online option for a main mail-in mail-out survey was not substantial, but a non-monetary incentive and a follow-up questionnaire made big impacts on response rates. The paper argues that to help minimise nonresponse in mail surveys, incentives and follow-up reminders should be considered.

Keywords: response rate, survey incentives, dual-mode, follow-ups

## INTRODUCTION

Sample surveys are important vehicles to collect data for a variety of purposes. Governments, research agencies, market research companies, non-government organisations, national statistical agencies and academic institutions all use surveys to collect data to evaluate programs, to establish baseline data, to find effective ways of delivering products to the market and many other purposes. Since collecting data on the whole of the population is not feasible or practical, with careful design, sample surveys can provide quality data that are essential for evidence base research. At the same time as the demand for survey research has increased, survey response rates have been falling (Atrostic et al., 2001; Nair, Adams & Mertova, 2009; McAllister & Clark, 2008).

Low nonresponse in any population survey is a cause for concern. There have been numerous studies addressing the issue of non-response and how do deal with it. Groves and Couper (1998) have summarised the extensive literature on methods for increasing response rates which show that cash incentives have a positive effect in response rates. The effect of primary approach letter (PAL) and monetary incentives have been found to be most effective methods used to increase response rates (Schwarz, Groves & Schuman, 1995). Research on the effect of non-monetary incentives on increased response rate has shown that there is a positive effect (Hansen, 1980).

A meta-analysis by Fox, Crask and Kim (1988) identified postal survey practices that increased response rates. Their analysis showed that pre-notification of the survey, using a pre-approach letter or similar mail-out, and follow-ups, increased response rates. In addition, they report that some evidence exists to suggest that the colour of the questionnaire influences response rate. They further noted that although monetary incentives increased response rates, the increase in the size of monetary incentive appeared to have decreased marginal gains.

In an experiment to find the effect of prepaid nonmonetary incentive (a pen) on Detroit Area Survey, Willimack et al. (1995) reported that the response rate for pen group was 5 per cent higher. However, when Edwards, Williams and Lea (1998) tried to replicate the effect of pen on response rates, the researchers reported that the pen group response rate was 82.7 per cent compared to 82.5 per cent in the no pen group. This suggests that probably the effects of nonmonetary incentive at best is small and cannot be replicated across surveys. Couper, Ryu and Marans (2006) reported that although incentives increased response rates, cash incentives yielded higher response rates than in-kind incentives.

In recent years, to increase response rates in mail-surveys, respondents have been provided with multiple response modes. However, Millar and Dillman (2011) report that providing a simultaneous choice of response modes (mail as well as web response

options) did not improve response rates compared to providing only a mail response option. They note that sequential offering of response modes, for example, offering web options first, followed by a mail survey follow-up, improved the response rates.

A study by Brennan and Charbonneau (2009) showed the importance of using follow-up mail-outs to improve mail survey response rates. They argue that follow-up mail-outs, in addition to incentives, work better than follow-ups or incentives alone. They report that using a chocolate as an incentive with the first mail-out was effective in generating a significantly higher initial response than the control. They further reported that, the effect on response rate of sending a replacement questionnaire and a chocolate with the first follow-up was significantly higher than sending only a letter.

Based on the literature on the effect of nonmonetary incentive on response rate on mail surveys, the Department of Health and Ageing (the funding agency) used a pen as an incentive among the participants of 2010 Australian National Infant Feeding Survey. The reason a pen inscribed with Department of Health and Ageing was chosen as an incentive was that it reiterated the message about the survey sponsor being a federal government agency.

### **The inaugural 2010 Australian National Infant Feeding Survey**

The 2010 Australian National Infant Feeding survey was funded by the Australian Government Department of Health and Ageing. The survey examined how Australian mothers and carers feed their children in the first 24 months of life, and included questions about breastfeeding, infant formula and introducing babies to other foods and fluids. Initially the survey was designed as a mail-out, mail-in only survey. Later, to increase the survey participation, an on-line option was included.

A pilot survey to test the survey method and survey instrument was conducted in August–September 2010. The main survey was conducted between October 2010 and February 2011. The sampling frame for the survey was the Medicare Australia enrolment database. A total of 52,008 infants and children aged up to 24 months were selected in the sample. The reason such a large sample was selected is that the survey aimed to estimate infant feeding behaviour for infants and children in each month of age from 0 to 24 months. Further, to obtain

a reasonable accurate baseline data, the sample size for each month of age had to be sufficiently large in order to have narrower confidence intervals.

### **METHOD**

Table 1 illustrates the design for the survey. Table 2 shows the important survey dates. A total of 52,008 mothers or primary carers of infants and children aged 24 months or less were sent a primary approach letter on 27 October 2010. A week after this, on 4 November 2010, a survey pack was sent to all respondents followed by a thank-you/reminder letter a week later (regardless of response status). A second set of survey form was sent to non-responding mothers/carers after three weeks of the thank-you/reminder letter, on 6 December 2010. The respondents were provided with toll-free telephone number and email address to contact the survey team with any question they may have. The mail-out was managed by Medicare Australia due to privacy reason. The AIHW received information only on number of mail-outs, the number of returned-to-senders (RTS) and refusals. Updates on daily responses were provided by the Educational Assessment Australia, who were contracted to collect the completed survey forms from a designated post office in Sydney and electronically scan the responses.

To assess the effect of response rates on follow-up questionnaire, a subset of non-responding sample (5,000) were randomly selected and subsequently excluded from the follow-up mailing. Although it would have been preferable to conduct a 'strict' study design where the researcher had total control over the allocation of respondents into whether to send a follow-up questionnaire or not, due to the nature of the survey, it was not possible to follow the exact design. For example, respondents who were randomly chosen for not to receive any follow-up survey forms contacted the survey team asking for replacement forms to be sent. On ethical ground, the research team sent the forms when requested by the respondents even though technically these respondents were in no follow-up group. The ethical approval for this study was obtained from the AIHW Ethics Committee.

**Table 1: The study design**

Follow-up questionnaire			
Pen as an incentive	Yes	No	Row Total
Yes	19,360	634	19,994
No	27,639	4,358	31,997
<b>Column total</b>	46,999	4,992	51,991

**Table 2 Important survey dates**

Date	Days from initial mail-out of survey forms	Activity undertaken
27 October 2010	-8	First mail-out: primary approach letters were sent to all parents/ carers inviting to participate in the survey
4 November 2010	1	Second mail-out: first survey form mailed to the respondents
11 November 2010	7	Third mail-out: a thankyou/reminder letter sent to all respondents
6 December 2010	32	Fourth mail-out: follow-up survey form sent to the selected non respondents
11 February 2011	92	Survey officially closed: responses received after this date were not processed

*First mail-out:* The first mail-out consisted of a primary approach letter signed by the CEO of the Australian Institute of Health and Welfare (AIHW), and another letter from the Privacy Commissioner of Medicare Australia. Also included was a colour brochure with answers to frequently asked questions. The primary approach letter included a toll-free number and an email address to contact the project team if the selected respondent had any questions about the survey or if they preferred not to take part in the survey. About 300 selected respondents opted out of the survey at this initial contact.

*Second mail-out:* In the second mail-out, respondents were sent a survey form, a reply-paid envelope to send back the completed form, along with another letter from the AIHW explaining the survey. The letter also contained user ID, password and website details for on-line completion if the respondents chose to do so, and another letter from Medicare Australia. In addition, about 20,000 respondents selected randomly received a Department of Health and Ageing pen as a survey incentive.

*Third mail-out:* The third mail-out was a letter which acted like a thankyou letter for those respondents who had already responded and a reminder for those who were yet to complete the survey.

*Fourth mail-out:* A second set of survey materials (a survey form, a reply-paid envelope and letters from the AIHW and Medicare Australia respectively) was sent to majority of the non-responding sample on 6 December 2010. To assess the effect of the follow-up survey form on response rate, a sub-sample of 5,000 records were excluded from this mail-out.

**RESULTS**

**Overall Response rate**

The survey was officially ‘closed’ on 11 February, 2011. By this time, of the 52,000 initial mail-outs, 27,025 responses had been received in paper form and 1,720 online responses. The survey obtained a 56.4% response rate<sup>1</sup>.

<sup>1</sup> The response rate is the number of completed forms received divided by the total useable sample expressed as percentage.

**Table 3: Response rates by whether pen was sent as incentive or not with the survey form**

Responded to the survey					
	Yes		No		
Pen as incentive	number	per cent	number	per cent	Row total
Yes	11,859	60.5	7,735	39.5	19,594
No	16,886	53.8	14,521	46.2	31,407
Total	28,745	56.4	22,256	43.6	51,001

**Effect of pen as an incentive on response rate**

When response patterns were monitored for the two groups—those who were sent a pen and those who were not—the results showed that the response among the group who were sent a pen as an incentive was higher than those who were not sent a pen (61% and 54% respectively (Table 3).

The daily response pattern showed that, proportionately more respondents who received a pen as an incentive completed and mailed back the survey forms early and this trend remained during the entire survey period (Figure 1).

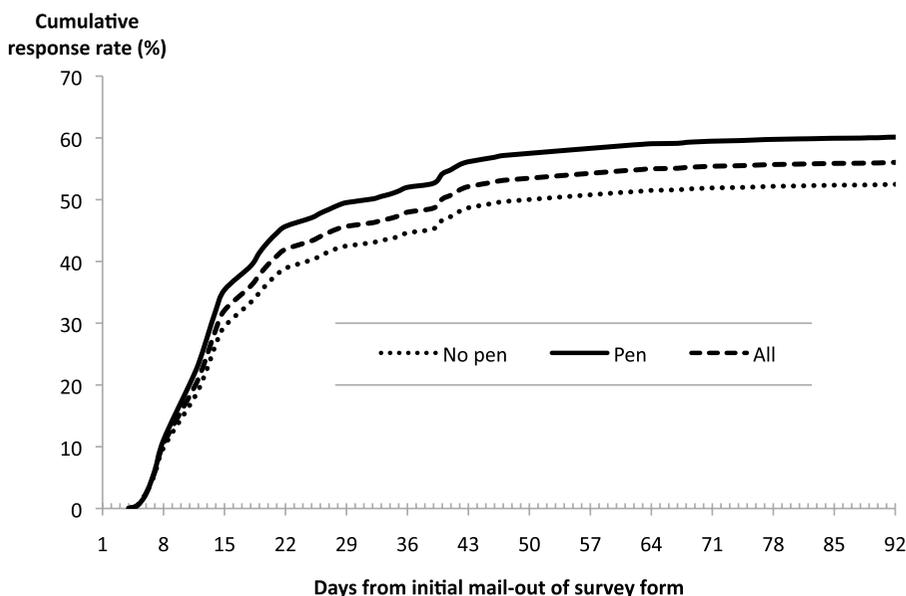
**Effect of follow-up on response rate**

Four weeks after the initial mail-out of the survey form, a second follow-up questionnaire was sent to those respondents who had not yet responded to the survey (either by completing the form, or by opting-out from the survey). In the follow-up mail-out, no incentive was included. Around 22,000 respondents were sent the

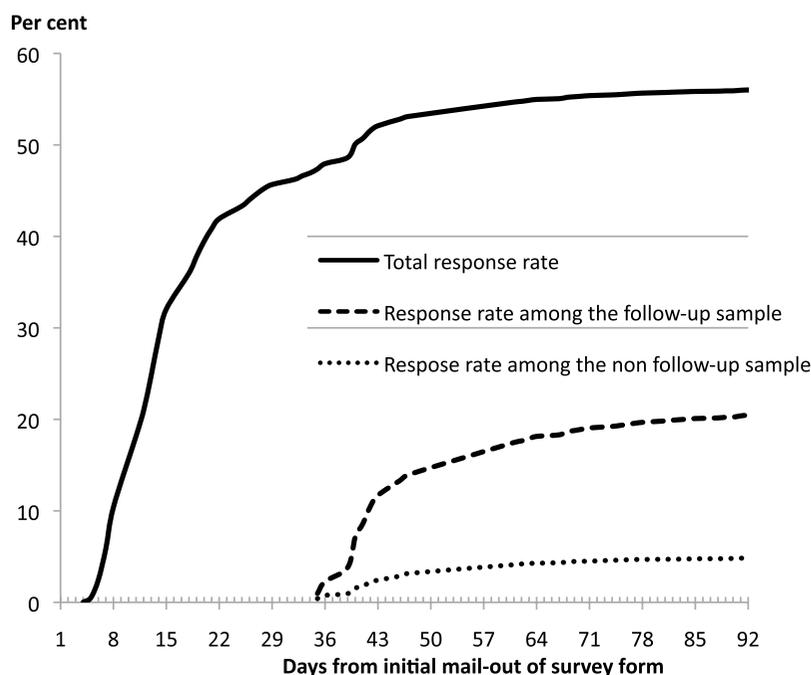
follow-up questionnaire. As explained earlier, about 5,000 non-responding respondents were excluded from this mail-out. Since these non-responding group were randomly selected one week prior to the follow-up mail-out, these were not balanced across both groups (pen/no pen).

While the survey allowed respondents to complete the survey online, the take-up rate was fairly low; with only six per cent of total completion. The majority of the online completions were completed within the first three weeks of the survey. The total response patterns and response rates for follow-up and non-follow-up sample are shown in Figure 2. The dark solid line shows the total cumulative response rate. The horizontal axis shows the days from the initial mail-out of the survey form. The first questionnaire was mailed out more than a month before the follow-up mail. The graph shows that the response rates dropped dramatically after the third week of the first mail-out while the response rates increased immediately after sending the follow-up questionnaire.

**Figure 1 Response rates by pen or no pen**



**Figure 2 Response rates by follow-up questionnaire**



The broken lines in Figure 2 represent the cumulative response rates among the two groups of the sample—those who were sent a follow-up survey and those who were not. The rates are calculated after the mailing of the follow-up questionnaire. The lines show that among the follow-up sample, over 20% completed the survey after receiving the follow-up questionnaire compared to only 5% who were not mailed a follow-up questionnaire. The data also showed that although the numbers of returns went up sharply immediately after the follow-up mail, the effect tapered off after about three weeks.

## DISCUSSION

The decreasing trend in survey participation is a major concern for policy makers because there is no other way of measuring program effectiveness or attitudes or perception from non-responding part of the sample. Research agencies are implementing strategies to improve response rates in order to reduce the survey bias. In the case of mail surveys, incentives (both monetary and in-kind), follow-ups with a replacement questionnaire, informing respondent about the survey with a pre-approach letter, the design and colour of questionnaire, and the prominence of the sponsoring agency, have shown to improve mail survey response rates. While conducting the 2010 Australian National Infant Feeding Survey, the AIHW used a survey incentive,

a printed survey brochure and a survey instrument in colour, sent follow-up questionnaires and provided an option for on-line completion. In addition, the survey was conducted by the AIHW, a respected independent national health statistics office, and sponsored by a federal health department. The use of these techniques and other aspects of the ‘tailored design method’ (Dillman, Smyth & Christian, 2009) had positive effect on survey response rates.

The study showed that response rate among the group who received a survey incentive was higher than the group who did not receive the incentive. Further, mailing a reminder letter with a follow-up questionnaire improved response rates. This paper argues that to minimise non-responses in surveys, in-kind survey incentives and follow-up questionnaires should be considered while designing a project. While there was no study done in the quality of data among pen/no pen group or among follow-up/no follow-up group, the increased participation in the survey itself will reduce non respondent bias. Care should be taken to generalise the findings that pen can be an effective incentive to all postal surveys because the topic on infant feeding survey may meant that respondents were much more willing to participate in this survey in the first place. More studies on the effect response rates using pen as a survey incentive in different survey setting are recommended.

## REFERENCES

- Atrostic, B. K., Bates, N., Burt, G. & Silberstein, A. (2001). Nonresponse in U.S. Government Household Surveys: Consistent Measures, Recent Trends, and New Insights. *Journal of Official Statistics*, 17(2), 209–226.
- Brennan, M. & Charbonneau, J. (2009). Improving mail survey response rates using chocolate and replacement questionnaire. *Public Opinion Quarterly*, 73(2), 368–378.
- Couper, M. P., Ryu, E. & Marans, R.W. (2006). Survey Incentives: Cash vs. In-Kind; Face-to-Face vs. Mail; Response Rate vs. Nonresponse Error. *International Journal of Public Opinion Research*, 18(1), 89-106.
- Dillman, D.A., Smyth, J.D. & Christian L.M. (2009). *Internet, mail and mixed-mode surveys: the tailored design method*. New Jersey: John Wiley & Sons.
- Edwards, B., Williams, A. & Lea, S. (1998) *Nonmonetary incentives: can their effects be replicated?* Papers Presented at the 53rd Annual Conference of the American Association for Public Opinion Research May 14-17, 1998 St. Louis, Missouri.
- Fox, R. J., Crask, M. R. & Kim, J. (1988). Mail survey response rate: A meta-analysis of selected techniques for inducing response. *Public Opinion Quarterly*, 52(4), 467-491.
- Groves, R.M., & Couper, M.P. (1998). *Nonresponse in household interview surveys*. New York: John Wiley and Sons.
- Hansen, R.A. (1980). A self-perception interpretation of the effect of monetary and nonmonetary incentives on mail survey respondent behavior. *Journal of Marketing Research*, Vol. XVIII, pp. 77-83.
- McAllister, I., & Clark, J. (2008). *Trends in Australian Political Opinion: Results from the Australian Election Study, 1987-2007*. Canberra: Research School of Social Sciences, Australian National University.
- Millar, M. M. & Dillman, D.A. (2011). Improving Response to Web and mixed-mode surveys. *Public Opinion Quarterly*, 75(2) 249–269.
- Nair, C. S., Adams, P. & Mertova, P. (2009). Issues Concerning the Delivery of Surveys: An Institutional View [online]. *Evaluation Journal of Australasia*, 9(2), 33-38. Availability: <<http://search.informit.com.au/documentSummary;dn=823056587565570;res=IELBUS>> ISSN: 1035-719X. [cited 09 Aug 11].
- Schwarz, N., Groves, R.M., & Schuman, H. (1995). Survey Methods, SMP Working Paper Series, No.30. Preliminary Chapter for *Handbook of Social Psychology*, D. Gilbert, et al., New York: McGraw-Hill.
- Willimack, D.K., Schuman, H., Pennell, B., & Lepkowski, J.M. (1995). Effects of a Prepaid Nonmonetary Incentive on Response Rates and Response Quality in a Face-to-Face Survey. *Public Opinion Quarterly*, Vol. 59, pp. 78-92.

### Author's note

The views expressed in this paper are author's personal views and they do not necessarily reflect the views of the Australian Institute of Health and Welfare, or the Australian Government Department of Health and Ageing. The author acknowledges the advice by Mark Cooper-Stanbury in developing this paper. Thanks are due to an anonymous reviewer whose comments were very helpful in polishing the paper further.

# Deletion, distortion and data collection: the application of the Neuro-linguistic Programming (NLP) meta-model in qualitative interviews<sup>1</sup>.

Jenny Knight.<sup>1</sup>

## ABSTRACT

The skills required of the researcher undertaking qualitative interviews are considerable. A range of writers discuss the importance of a conversational approach, avoiding inhibiting interviews, a skilled approach to asking follow-up questions and strong listening skills. These questioning and listening skills are of crucial importance in the context of semi-structured, exploratory interviews where themes are emergent. Whilst it could be argued that these skills are a natural part of any conversation, if the qualitative researcher fails to pay sufficient attention to how language is used and ask adroit follow-up questions they may fail to gather rich and meaningful data. This paper explores the usefulness of the application of the NLP meta-model to qualitative interviews, drawing on the experience of a researcher undertaking doctoral research and applying this approach to semi-structured interviews. The main conclusions are that (1) The NLP model is an eclectic model and as such draws on the mode 1 knowledge of academics and the mode 2 knowledge of professional practitioners, or 'praxis' (the connecting of learning to 'real life' situations); (2) the good qualitative researcher remains conscious of the importance of skilled questioning, as well as the danger of colluding with or influencing participants. The NLP 'meta-questioning' model provides the researcher with a 'tool' for critical questioning, as well as a set of underpinning principles (i.e. the operating principles) as a possible way of ensuring questioning remains rigorous and, where appropriate, challenging; (3) Subsequently the model may provide a reference point against which to consider data. Whilst the model is traditionally applied to individuals, it could be argued that specific concepts and techniques could usefully be applied to whole organisations or systems.

Key words: Neuro-linguistic programming; deletion; distortion, generalisation; qualitative research; qualitative interviews

## INTRODUCTION

While this paper does not attempt to attack or defend Neuro-Linguistic Programming (NLP), it highlights the usefulness of the application of the NLP meta-model to qualitative interviews, drawing on the experience of a researcher undertaking doctoral research and applying this approach to semi-structured interviews. The main conclusions are that (1) The NLP model is an eclectic model and as such draws on the mode 1 knowledge of academics and the mode 2 knowledge of professional practitioners, or 'praxis' (the connecting of learning to 'real life' situations). The model is 'alive and kicking' even if not highly regarded by all who study it; (2) the good qualitative researcher remains conscious of the importance of skilled questioning, as well as the danger of colluding with or influencing participants. The NLP 'meta-questioning' model provides the researcher with a practical 'tool' for critical questioning, as well as a set of underpinning principles (i.e. the operating principles) as a way of ensuring questioning remains rigorous and, where appropriate, challenging; (3) Subsequently the model may provide a reference point against which to consider data. Whilst the model is

traditionally applied to individuals, specific concepts and techniques can be usefully applied to whole organisations or systems, thereby strengthening both the research and analysis processes.

## BACKGROUND

The skills required of the researcher undertaking qualitative interviews are considerable. A range of writers discuss the importance of a conversational approach, avoiding inhibiting interviews, a skilled approach to asking follow-up questions and strong listening skills. (McGivern, 2006, Patton, 2002, Rossman & Rallis, 2003, Yin, 1994 Gomm, Hammersley & Foster, 2000, Miles and Huberman, 1984) These questioning and listening skills are of crucial importance in the context of semi-structured, exploratory interviews where themes are emergent. Whilst it could be argued that these skills are a natural part of any conversation, if the qualitative researcher fails to pay sufficient attention to how language is used and ask adroit follow-up questions they may fail to gather rich and meaningful data. The Neuro-linguistic programming (NLP) meta-model offers qualitative researchers a practical way of ensuring a more rigorous and disciplined approach to critical questioning, one

<sup>1</sup> This article originally appeared in the Proceedings of the European Conference on Research Methodology for Business and Management Studies, Caen 2011 and is reproduced with the kind permission of the organisers.

which is likely to increase both the reliability and validity of their research. This suggestion is based on the experience of a doctoral researcher undertaking a qualitative, phenomenological approach (Pekala & Kumar, 2007) to researching blocks to change in an organisation. For some researchers the NLP meta-model may also provide an additional reference point against which to consider the emerging data, as is demonstrated in this paper.

There follows an explanation of NLP, including definitions, belief systems and the use of the NLP meta-model. The diverse views of NLP are discussed briefly in the context of an exploration of the usefulness of the model.

## NEURO-LINGUISTIC PROGRAMMING

### An explanation

Set out below are some broad definitions of NLP which provide some indicators of the field:

- NLP is the study of the structure of subjective experience
- NLP is an accelerated learning strategy for the detection and utilisation of patterns in the world' (John Grinder)
- NLP is an attitude and a methodology, which leave behind a trail of techniques (Richard Bandler)
- NLP is the influence of language on our mind and subsequent behaviour
- NLP is the systematic study of human communication (Alix Von Uhde)
- NLP is the method for modelling excellence so it can be duplicated (O'Connor, 2001, p. 2)

The 'Neuro' in NLP acknowledges the fact that information about the world is processed neurologically, using the brain and the nervous system, through our five senses: sight, hearing, touch, taste and smell. 'Linguistic' refers to the verbal language that used to communicate, as well as internal thoughts and external 'body language'. 'Programming' relates to 'programmes' or patterns of behaviour; in other words, the way we organise our thoughts and our behaviour to produce results.

NLP evolved in the early seventies out of the work of John Grinder and Richard Bandler of the University of California. Their work was informed by the work of Fritz Perls, the originator of Gestalt Therapy;

Virginia Satir, a family therapist, and Milton Erickson, a hypnotherapist. Grinder and Bandler studied the underlying patterns of behaviours and communication making these therapists so effective in assisting people to change their lives for the better. They also drew on the insights and ideas of many others, including Gregory Bateson, the writer and thinker on anthropology, cybernetics and communications theory. This work informed the development of a set of models of human skills and behaviours that they called 'Neuro-Linguistic Programming'. – described by O'Connor and McDermott (1996) as the 'the psychology of excellence'.

### Belief Systems and NLP

O'Connor and McDermott provide a simple explanation of how our belief systems affect what we think and how we act:

*"Our mind, body and spirit meet in our beliefs. What we believe deeply affects what we think and how we act. NLP sees beliefs not in terms of true or false, but in terms of useful or not useful. What are the consequences of your beliefs? What actions flow from them? As we cannot know everything about the world, in many areas our beliefs are simply our best guess at the moment....."* (p.XIII)

O'Connor and McDermott go further to describe the strategies we employ to help us make meaning of the world and which can be both an asset and a liability. They call these '*The Gatekeepers at the Doors of Perception*'. NLP suggests that these 'gatekeepers' transform experience into internal representations. They also transform our internal representations when we use language. First we delete, distort and generalise to make sense of our experience and then our choice of words to describe the experience deletes, distorts and generalises it all over again. O'Connor and McDermott therefore describe spoken language as a map of a map, and thereby two levels away from sensory experience.

### Deletion, distortion and generalisation

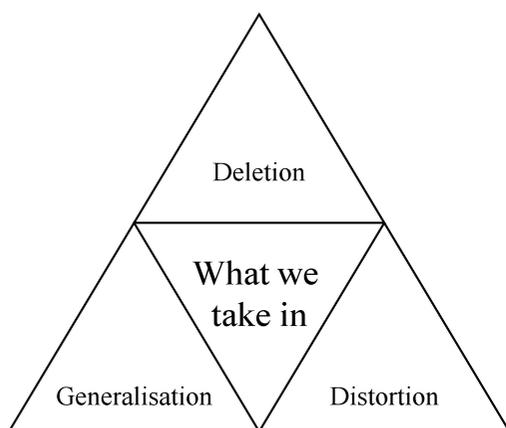
*Deletion* - human beings select the experiences they remember and delete others, either by discounting them as unimportant or by failing to register them.

*Distortion* – it is possible to change experiences by exaggerating, diminishing or choosing to see them differently.

*Generalisation* – it is common practice for us to take certain aspects of our experience as representative of the whole, and pay no attention to exceptions. This enables us to respond to new situations on the basis of what we have learned from similar ones in the past.

These are all ways in which we can fit new experiences into the ways in which we already see the world.

**Figure 1: A Model of Communication (from an NLP perspective)**



### Using the NLP meta-model

The NLP meta-model was the first model developed by Bandler and Grinder (1975), and was designed to demonstrate how deletion, distortion and generalisation are used when experiences are translated into language, and then to identify specific questions which can be asked to re-connect experience with language. The meta-model is a series of questions which seek to unravel some of the inevitable selections and distortions in language to clarify communication for both speaker and listener. Bandler and Grinder modelled the linguistic skills of Virginia Satir, one of the prime forces behind family therapy; and Fritz Perls, a psychologist and the originator of Gestalt therapy, and combined these with Grinder's research into transformational grammar into a meta-model. The term 'meta' means above or beyond – so the meta-model is a model whereby we clarify meaning by getting above the meanings that language is conveying. It seeks to unravel some of the inevitable distortions in language to provide clarity for both speaker and listener.

The model comprises 13 patterns divided into the three categories: deletion, distortion and generalisation. O'Connor (2001) provides examples of language used against each of these patterns together with

suggestions about what to listen for and how to recover information which has been left out. Examples from the research interviews are given later in this paper.

### Perspectives on NLP

While the author does not propose to attack or defend NLP in this article, it is important to note the continued debate about its worth and legitimacy. It is described by many as a 'pseudo-science', and it has received strong criticism from a range of disciplines, e.g. psychologists, linguists and psychotherapists. The 'model for subjective experience' has been challenged by, e.g. Salas, Degroot and Spanos (1989); Yeager (1985) and Graunke and Roberts (1985). Management scholars also have reservations about its usefulness as a tool for management coaching and development, although it has become an increasingly popular model amongst practitioners, working in, for example, education and training. (Kudliskis & Burden, 2009). There is, then, a difference of opinion about its usefulness between academics and practitioners, as discussed by Tosey and Mathison (2009), who highlight the pragmatic as opposed to theoretical approach by the founders as a key source of criticism. Whatever the debate about the legitimacy of NLP, what is beyond argument is that it is used extensively as a management technique and studied and practiced by a range of professionals working in a wide range of settings – education, training etc. Type 'NLP' into your search engine and you will be directed towards an array of courses, books, explanations and articles focusing on NLP and how to use it. NLP is, as stated earlier, 'alive and kicking', and so it would seem churlish not to explore its possibilities.

The NLP model is an *eclectic* model, one which has been developed by drawing from many different schools. It has been described as 'whatever works', which suggests that by studying the work of such writers, philosophers, linguists and therapists such as Erickson, Perls, Bateson and Satir, Bandler and Grinder (1975) developed strategies which reflected this broad study. The NLP model draws on the mode 1 knowledge of academics and the mode 2 knowledge of professional practitioners, or 'praxis' (the connecting of learning to 'real life' situations). The NLP study of human experience and communication and the subsequent development of NLP tools and techniques now provide a model which captures a wide range of perspectives and applies them to human experience, beliefs and actions and to the use of language as a way of changing beliefs of an individual. For the researcher undertaking interviews 'whatever works' is worth trying.

The NLP meta-model, if used well, will provide the researcher with a 'tool' for critical questioning, as well as a set of underpinning principles (i.e. the operating principles) to ensure that each interview is approached in a positive and open frame of mind. Subsequently the model may well support and inform analysis of interview data. It enables the interviewer to go below the surface structure of language employed to the deeper structure, thereby helping him/her to get closer to the ways in which the interviewees make sense of personal experiences.

There follows an example of the application of the model to qualitative interviews, together with some acknowledgement of the potential weaknesses of the research and of qualitative research in general. This serves to provide some justification for the use of the NLP meta-model

#### **An example of the application of the NLP meta-model to qualitative interviews**

The central purpose of the research, in this case, was to find out why an organisation appeared to be 'stuck', unable to change behaviours and practices despite knowing that it was necessary. The organisation in question was under-performing and despite having the skills and resources necessary to change, seemed unable to move forward. The researcher chose to adopt the qualitative, phenomenological approach, constructing questions so that patterns, categories and theories would emerge during the process (i.e. an iterative process). This approach would enable the researcher to develop an understanding of the whole person/system, and to establish a non-judgemental, non-evaluative but interactive relationship with those being researched. Maslow (Reason & Rowan, 1981) talks of the importance of a relationship, or an intimacy, between the researcher and the researched, and argues for caring objectivity and understanding in order to research more difficult issues.

The study of the data involved reading and re-reading the transcripts, noting the emergent themes and categorising them (the phenomenological approach), without a strong or 'a priori' theory. (Glaser & Strauss, 1967). The intention was to develop a sense of what was interesting through a growing understanding of the phenomenon, and to explore these areas of interest.

In choosing the above option, the researcher remained conscious of the range of perspectives existing on the strengths and potential weaknesses of qualitative

research. (e.g. Walker, 1981; Miles, 1979; Rossman & Rallis, 2003; Stake, 1995; Yin, 1994; Gomm, Hammersley & Foster, 2000; Miles & Huberman, 1994). The issues of bias, subjectivity, interpretation, validity and time were taken into account by the researcher while at the same time acknowledging the strength of qualitative research in dealing with complexity and identifying root causes of unspecified problems Yin (1994).

In this case, the researcher had recently been part of the organisation (s)he was researching, and so a critical challenge was to avoid such pervasive bias and reflexivity that his/her own beliefs were merely confirmed as a result of the research. Acknowledgement of bias and awareness of the qualitative researcher's part in creating meanings is required, and whereas the quantitative researcher seeks to eliminate bias the qualitative researcher should seek ways of minimising bias and reflexivity. The researcher will not be able to control reflexivity thereby achieving objectivity, and neither will they be able to eliminate bias from the research process, but he/she should recognise the existence of reflexivity in social interactions and should focus on understanding its effects. The researcher should remain 'consciously self-conscious' (Delamont, 1992) about their roles and interactions as researchers and about the theoretical and empirical material as it accumulates.

*'as long as qualitative researchers are reflexive, making all their purposes explicit, then issues of reliability and validity are served'*. (Delamont, 1992, p. 8).

The debate surrounding the advantages and disadvantages of qualitative research and the persuasive arguments for persisting with it despite the challenges outlined above informed the approach to undertaking the research and to analysing the data. Interviews represent the personal face of data collection, providing the researcher with the opportunity to observe body language, to note hesitations, to take account of nuances of speech and phrase, to follow up leads not followed up by the researched and to take into account other contextual factors.

Standardised and open-ended interviews were conducted with the researched, preparing open-ended questions which would be consistently used from one interview to another, but allowing flexibility to go beyond the set questions in order to follow any lead the interviewee provided, i.e. to allow the

interview to be exploratory. By asking the interview to elaborate on certain points the researcher gives a strong indication of their interest in more than just superficial responses (Rossman & Rallis, 2003) Follow-up questions will take the interview to a deeper and more detailed level, and *'are a natural part of any conversation'* (Ulin, Robinson, Tolley & McNeill, 2002, p.86). Patton (2002) describes the skill in asking good follow up questions as *'knowing what to look for in the interview, listening carefully to what is said and what is not said, and being sensitive to the feedback needs of the person being interviewed'*. (p. 374). Patton's perspective sits comfortably with the Neuro Linguistic Programming (NLP) 'meta-model', which talks of the importance of sensory acuity, rapport and active listening as part of effective communication. These questioning and listening skills, whilst being a natural part of any conversation, are of crucial importance in the context of exploratory interviews where themes are emergent.

The researcher in this case was interested in establishing 'reality' as seen by the participants, and had no specific 'truth' or theory to pursue. In this

case the interviewees were encouraged to express personal views, rather than stick to facts, and the approach was to be informal accepting the use of metaphor and stories on the part of the researched, as well as allowing for informal conversation as a way of finding out about the organisation. Of critical importance, however, was the need to minimise the likelihood of bias and reflexivity, given the informal nature of the interview process and the danger of the researcher's own perspective or frame of reference colouring his/her judgement (Morgan, 1983).

The NLP meta-model, as discussed, comprises 13 patterns divided into the three categories: deletion, distortion and generalization. The categories and the patterns have been reproduced with examples of responses, drawn directly from interviews (See Table 1).

There follows an explanation of the relationships between NLP principles and theories of motivation which serves to demonstrate the usefulness of NLP principles as an initial reference point against which to analyse data.

**Table 1: The NLP meta-model and the language of the research interview**

Patterns of <i>deletion</i>	Interviewee's assertion	Interviewer's response
Simple deletion	'We don't have the skill...'	'Is there a time when you did have the skill?'
Lack of referential index	'The organisation doesn't value people....'	'Who? What has happened? Specifically?'
Unspecified verb	'Management stifle us'	'How specifically does management stifle you?'
Judgement	'It's obviously the Senior Management Team's responsibility'	'Obvious to whom? Who is making this judgement, and on what grounds?'
Comparison	'He was a better person'	'Compared with? Than what? Against what?'
Patterns of <i>distortion</i>		
Nominalization	'We need to improve our communication'	How could we communicate well with each other?'
Mind reading	'He thinks I'm difficult'	'How do you know?'
Cause and effect	'They make me angry'	'How could they make you angry?'
Complex equivalent	'I'm not closely managed because I'm trusted'	'How does this mean, or lead to, that?'
Patterns of <i>generalisation</i>		
Modal operator of necessity	'You must complete your WD40 in triplicate...'	'What would happen if we didn't?'
Modal operator of possibility	'The staff can't solve the problem'	'What prevents them? What would happen if they did?'
Universal quantifiers	'It's always been like that'	'Has it ever been different?'

Source: O'Connor (2001) and examples from the research interviews

### **NLP and its use in data analysis**

As well as those writers who have directly influenced the development of the NLP models and perspectives, a range of studies of organisational life also reflect NLP principles and perspectives, and accord with philosophical, psychological, linguistic and therapeutic perspectives. It is suggested that the question of which came first is neither here nor there. What we have in the NLP framework is a central reference point which can be used by researchers as a prompt to re-visit a range of organisational theories and perspectives, as well as exploring the origins of the meta-model and their relevance to the data.

The principles of NLP cover belief systems, deletion, distortion and generalisation, neurological levels and meta questioning. In the case of the research discussed in this paper, for each new theoretical perspective explored and applied to the organisation, from defining climate via the identification of shared meanings and mental models through to addictive thinking, there was a direct relationship to NLP theories and perspectives. The term 'meta' means above or beyond. The meta-model is a model whereby we clarify meaning by getting above the meanings that language is conveying. It seeks to unravel some of the inevitable distortions in language to provide clarity for both speaker and listener.

This simple explanation, then, sits very comfortably alongside attribution theory (Martinko, 1995), and expectancy-based models of motivation (Vroom, 1966; Porter, & Lawler, 1968). NLP perspectives and models were developed out of a study of a range of writers, philosophers, linguists and therapists and as such can support the researcher to make connections to diverse perspectives relating to the nature of reality, motivation, levels of change, organisational climate. The very fact that the meta-model can be used to uncover deletion, distortion and generalisation will provide the researcher with clues about, for example, prevailing organisational climate or culture, beliefs about self-efficacy and resistance to change/role change.

In this case, the researcher used the NLP model of levels of subjective experience as an initial way of developing an understanding of the beliefs and values within the organisation, and how these were blocking organisational change. The model provided a starting point.

### **CONCLUSION**

This paper has explored the potential for using the NLP meta-model for qualitative interviews and draws on the experience of a researcher undertaking doctoral research and applying this approach to semi-structured interviews. While there remains considerable criticism of the model in the academic community, it is clear that many practitioners in the fields of education and training see the model as both pragmatic and impactful. The description of the model as 'whatever works' has perhaps done little to enhance its legitimacy, but the descriptor merely points out that the model, developed from knowledge of a range of writers from diverse disciplines, provides a practical approach to real life. ('praxis').

The qualitative researcher, faced with the dilemmas of bias, reflexivity, subjectivity, interpretation, validity, time and complexity, will benefit from as many tools and techniques as possible to strengthen their approach and ensure validity and reliability. Skilled questioning and avoiding colluding with or influencing participants will produce meaningful data. The NLP 'meta-questioning' model provides the researcher with a valuable 'tool' for critical questioning, as well as a set of underpinning principles (i.e. the operating principles) as a possible way of ensuring questioning remains rigorous and, where appropriate, challenging.

The model has been developed as a result of the study of a range of perspectives from diverse disciplines, and so may provide a reference point against which to consider qualitative data. Whilst the model is traditionally applied to individuals, specific concepts and techniques could usefully be applied to whole organisations or systems. In the case of the research discussed in this paper, the researcher was able to re-visit key organisational concepts as a result of reference to NLP principles.

Accepting the diverse criticisms of NLP and the meta-model, it should be acknowledged that NLP is alive and kicking. Perhaps this is because practitioners can work with it whereas it remains, at best, challenging to apply theoretical perspectives to everyday life; that is until they are transformed into understandable models of some sort.

As a mechanism for improving interviewing skills and ensuring that data is as meaningful as is possible the NLP meta-model should be regarded as something which works. And 'whatever works' is a good place to start.

## REFERENCES

- Bandler, R. & Grinder, J. (1975). *The Structure of Magic, Vol. 1*. Palo Alto: Science & Behavior Books.
- Delamont, S., (1992). *Fieldwork in Educational Settings: Methods, Pitfalls and Perspectives*. London: Falmer.
- Glaser, B. G. & Strauss, A.L. (1967). *The Discovery of Grounded Theory*. Chicago: Aldine.
- Gomm, R., Hammersley, M. & Foster, P. (Eds), (2000). *Case Study Method* London: Sage.
- Graunke, B., & Roberts, T. (1985), Neurolinguistic programming: The impact of imagery task on sensory predicate usage, *Journal of Counselling Psychology*, 32(4), 525-530.
- Kudliskis, V & Burden, R. (2009). Applying 'what works' in psychology to enhancing examination success in schools: The potential contribution of NLP. *Thinking Skills and Creativity*, 4(3), 170-177.
- McGivern, Y. (2006) *The Practice of Market and Social Research*. Saddle River, N.J.: Prentice Hall Publishing.
- Miles, M.B. (1979). Qualitative data as an attractive nuisance: The problem of analysis. *Administrative Science Quarterly*, 24, 590-601.
- Miles, M. and Huberman A., (1984), *Qualitative Data Analysis: A Sourcebook of New Methods*. Beverley Hills, CA: Sage
- Morgan, G (Ed). (1983). *Beyond Method*. London: Sage.
- O'Connor, J. (2001). *The NLP Workbook*, London: Harper Collins.
- O'Connor, J and McDermott, I. (1996). *Principles of NLP*. San Francisco: Harper Collins.
- Patton, M.Q. (2002). *Qualitative Evaluation and Research Methods (2nd ed.)*, Thousand Oaks. CA: Sage.
- Pekala, R. J. & Kumar, V. K. (2007). An empirical-phenomenological approach to quantifying consciousness and states of consciousness, in Jamieson, G. (Ed.), *Towards a Cognitive-neuroscience of Hypnosis and Conscious States: A Resource for Researchers, Students and Clinicians*, London: Oxford University Press, 167-194.
- Porter, L. W. & Lawler, E. E. (1968). *Managerial Attitudes and Performance*. Homewood, IL: Dorsey.
- Reason, P. & Rowan, J. (1981). *Human Enquiry*. Chichester: Wiley & Sons.
- Rossmann, G.B. & Rallis, S.F. (2003). *Learning in the Field* London: Sage.
- Salas, J., Degroot, H. & Spanos, N. (1989). NLP and hypnotic responding an empirical evaluation, *Journal of Mental Imagery*, 13(1), 79-90.
- Tosey, P. & Mathison, J. (2009). *NLP: a Critical Appreciation*. London: Palgrave Macmillan.
- Stake, R.E. (1995). *The Art of Case Study Research* Thousand Oaks: Sage.
- Ulin, P.R., Robinson, E.T., Tolley, E.E. & McNeill, E.T. (2002) *Qualitative Methods: A Field Guide for Applied Research in Sexual and Reproductive Health*. Research Triangle Park, NC: Family Health International.
- Vroom, V. H. (1966). Organizational choice: A study of pre- and post-decision processes. *Organizational Behavior and Human Decision Processes*, 1, 212-225.
- Walker, R. (1981). The Conduct of Educational Case Studies: Ethics, theory and procedures. In Dockrell, W.B. & Hamilton, D. (Eds.) *Re-thinking Educational Research*. London: Hodder and Stoughton.
- Yeager, J. (1985). *Thinking about Thinking with NLP* Meta Publications, USA.
- Yin, R. K. (1994). *Case Study Research Design and Methods*. London: Sage.

<sup>1</sup> University of Brighton Business School, Brighton, East Sussex.  
jk92@brighton.ac.uk

# Using social networks and Guanxi in case study research on Australian firms doing business in China

Stuart Orr<sup>1</sup> and Jane Menzies, Deakin University, Australia

## ABSTRACT

This paper describes the application of Social Networking Theory (SNT) and *guanxi* to assist in the acceptance of participants for case study research. The research project method was developed for inductive research into the factors influencing Australian firms doing business in China. Case study research frequently encounters both active and passive participation resistance and non-response, especially when senior staff (CEO or Executive level managers) participation is required, which is why SNT and *guanxi* were incorporated into the participant recruitment. The process utilised social networks to establish shared understanding, mutual trust and facilitate the exchange of anecdotes, all of which increased the participation acceptance rate. The mechanisms adopted included gaining the external endorsement of a trade association, transferring researcher connection status from weak- to strong-tie levels, drawing on existing strong and weak ties and following up email requests with repeat emails, phone calls and trade association event attendance. This process increased the organisational participation acceptance rate for a given population by 400%.

Keywords: Qualitative Interview Recruitment, Social Networking Theory, Guanxi.

## 1.0 INTRODUCTION

Research into a large-scale business development phenomenon such as internationalisation often encounters initial participant resistance (Beaunae, Wu, & Koro-Ljungberg, 2011), which makes it difficult to achieve good response rates and balanced respondent profiles. This is often due to the confidential nature of the event being investigated, uncertainty about the details of the event (event recordkeeping is frequently less thorough than routine recordkeeping), and because the participants most equipped to represent the organisation are usually senior and, consequently, time poor. In addition, potential research participants of this type are likely to decline an interview request from an unknown researcher. Social Networking Theory (SNT) can be used to improve participant acceptance rates. In the case of research on Australian businesses operating in China, the Chinese concept of '*guanxi*' can also be incorporated to further improve participant recruitment. These methods should be applicable to improving acceptance rates in a range of other contexts, including research in international marketing and business. The objective of this paper is to 'demonstrate how social networking and *guanxi* can assist with recruiting suitable research participants'. Connections between SNT and *guanxi* will also be considered in the context of inductive research participant recruitment.

## 2.0 SOCIAL NETWORK THEORY AND GUANXI

SNT explains how relationships form in the context of active self-organising communities. Recent studies

have advocated SNT as a framework for understanding behaviours within social and business organisations (Barabási, 2002; Buchanan, 2002; Watts, 2003). SNT is becoming increasingly important for business in areas such as partnerships and so it is logical that SNT may be a useful research method tool. One of the key features of social networks is that they are important mechanisms for accessing critical personal resources, such as knowledge (BarNir & Smith, 2002). Frequently, these resources are the subject of inductive research. A social network can be defined as 'formal and informal connections', which 'can extend across professional ties, to include friends, former classmates, co-workers, organizations, associations, as well as regions, nations or cultural groups' (Bartholomew & Smith, 2006, p. 83). SNT is based on the concept that social networks are made up of strong- and weak-ties with other actors (Granovetter, 1973). Strong ties involve clusters of individuals with whom an individual has regular and direct contact. They may be close contacts, family, friends, or co-workers. Barabási (2002) notes that groups of individuals joined by strong ties usually have a similar social and economic status. They are usually in regular communication with one other and are likely to share similar values, beliefs and morals. Strong ties are central to the creation of effective social networks by introducing reliable and trustworthy relationships. As the strength and characteristics of ties vary between individuals, strong, socially-constructed rules on issues such as dealing with friends, family and co-workers, provide consistency within social groups. Frequently, these rules contain the dimensions of truthfulness, loyalty and commitment.

Weak ties are nodes in social networks that extend beyond connections such as immediate friends and family. They are often created by random factors and usually connect the individual to entirely separate social groups. Barabási (2002, p. 43) noted that, 'weak ties play a critical role in our ability to communicate with the outside world'. Granovetter (1973) argued that weak ties generate the new paths of influence, activity and innovation that allow us to expand our influence and information channels. This is important because, from an information perspective, the actors connected by strong ties will tend to possess similar information because of their frequent communication and shared beliefs. Weak ties provide access to new social networks (Granovetter, 1973), making them very important tools for data collection. For this reason, weak ties were the primary mechanism for connecting with potential participants as part of the method presented in this paper.

The concept of '*guanxi*' is a key Chinese cultural value which comprises ties, relationships, networks, and the development of trust within those relationships (Wang, Zhang, & Goodfellow, 1998). It facilitates useful connections to networks of family, friends and associates. *Guanxi* is a form of SNT which also defines the individual's place in the social network and determines security of position within the network, their trustworthiness and prescribed role (Hammond & Glenn, 2007). An individual possessing *guanxi* relevant to a particular situation can draw on their connections to gain a competitive advantage, or as Bell (2000, p. 132) suggests, access a 'network of assistance'. For example, facilitation of exportation and importation to and from Australia is a complicated process requiring an intimate knowledge of the process and departments involved – and good connections with the decision-makers in those departments. An exportation/importation agent with good connections can assist the expedition of importation and exportation to a greater extent than an agent not possessing those connections. As a result, their connections provide them with a competitive advantage and they can charge higher fees. *Guanxi* can speed up formal transactions and the completion of regulatory obligations to allow organisations to take advantage of short-term opportunities (Linong, 2006). *Guanxi* requires the development and maintenance of an intimate and pervasive relational network in which network members energetically, subtly, and imaginatively engage (Hammond & Glenn, 2007).

*Guanxi* is more than a network of connections, it can be considered to be a business (and research) 'mechanism by which individuals are able to achieve personal, family, or business objectives' (Bell, 2000, p. 132). Each link in a Chinese person's *guanxi* is defined in terms of a dyadic social tie or wang (Bell, 2000). The use of the term *guanxi wang* for such a network indicates that *guanxi* has tangible dimensions rather than just being a network. Graham and Lam (2003) argue that *guanxi* also incorporates reciprocity. For example, favour entitlement is retained in perpetuity and is transferable, which confirms its tangible nature. *Guanxi* also incorporates controls, which maintains the effectiveness of the network. For example, if favours are not returned, social status is reduced (*mianzi*). The transferability of favours is one of the control mechanisms by which these social networks are able to expand and is an important differentiator between *guanxi* and other social networks.

Developing *guanxi* requires time, financial and personal investment (Linong, 2006). Valuable *guanxi* can take years to establish. The staff time and expenses (e.g., travel) associated with establishing and maintaining *guanxi* networks can be significant. The personal investment of making a commitment to maintain the established relationships can also be a significant undertaking. Thus, *guanxi* meets the criteria for a strategic resource - valuable, rare, difficult to imitate and able to be leveraged for a competitive advantage (Grant, Butler, Hung, & Orr, 2011), and can be considered to be a valuable strategic resource. The value of *guanxi* has already been established. An established *guanxi* network effectively precludes the establishment of a competitive network involving any of the same actors. This makes *guanxi* networks in any industry segment relatively rare. The process of building *guanxi* involves activities including gifts, charity, donations, and forms of financial support, which makes it difficult/costly to imitate. As a very practical and flexible tool, it provides a competitive advantage wherever it is relevant – even in the recruitment of interview participants.

The systematic and strategic resource nature of *guanxi* means that it has some similarities to Western business network and relationship mechanisms. One example is relationship marketing theory; a theory about the process of creating and maintaining relationships with business stakeholders (Bjorksten & Hagglund, 2010). In both this theory and in *guanxi*, 'who you know, not what you know' is

more important as networks and relationships enable network members to secure favours. There is, however, a difference in favours and behaviours permissible within the two types of networks. In western networks, outward displays of favours to connections or family members would be considered to be nepotism and are generally not permissible. There are some exceptions to this, however, such as recruiting relatives of existing employees as a recruitment strategy. Making payments to officials and preferentially awarding contracts to friends, network members or family members is not permissible in western networks and most Western cultures, however, they are permissible under *guanxi* where the correct network connections exist.

These findings suggest that both SNT and *guanxi* are valuable empirical research tools because, as Bartholomew and Smith (2006) noted, the research process is a form of information exchange between the researcher and participant. For example, a participant manager may complete a survey to exert influence over and in exchange for a report of the findings. For the influence to occur there needs to be an element of trust.

Trust can be increased by developing a relationship with a potential participant. Professional, trade, regional and social networks improve response rates by creating the trust necessary for managers to agree to participate (Bartholomew & Smith, 2006; Tomaskovic-Devey, Leiter, & Thompson, 1994). Therefore, the concept of an endorsement will also be influential, as it can be used to improve the credibility of the message. Increased credibility resulting from endorsement increases respondent participation acceptance rates (Bartholomew & Smith, 2006; Rochford & Venable, 1995). For credibility to be increased, the endorser must be perceived to possess legitimate, credible, attractive, appropriate and powerful features relevant to the conditions. These endorsements can be either external or internal; in this paper we will focus on external endorsements. External endorsement can be derived from the research organisation, as well as third parties, such as social networks and associations (Cycyota & Harrison, 2002). In the case of research in China, *guanxi*, as well as SNT should be important tools for increasing participant acceptance rates. Table 1 provides a summary of the key predictions of SNT and *guanxi*.

**Table 1: Key Characteristics of SNT and Guanxi for Attracting Research Participants**

Features	Social Networking Theory	Guanxi
<b>Benefits</b>	Ability to access critical resources	Draw on connections to secure favours and network of assistance
<b>Involves</b>	Formal and informal connections, professional ties, friends, classmates, co-workers, organisations, associations, regions, strong ties (family, friends & co-workers) and weak ties (individuals beyond strong ties)	Ties, relationships, networks, connections. Individuals' roles in the social structure (i.e., husband & wife, father & son)
<b>Trust is developed</b>	Through membership in groups, strong ties and weak ties, endorsement through social networks.	Through time, gifts, friendship, eating together, money, bribery, membership in groups, family, school and work.
<b>Trust results in</b>	Exchanges and favours, weak ties can generate new paths of influence, innovation & activity	Continued exchange, favours, introduction to other <i>guanxi</i>
<b>Transferability</b>	Ties are transferable	<i>Guanxi</i> is transferable, if A & B and B & C know each other, A & C, will also come to know each other.

### 3.0 PRACTICAL APPLICATIONS IN PLANNING & CONDUCTING FIELD WORK

Planning for recruiting interview participants requires a number of considerations, which include identifying the selection criteria for participants and the interview site (a place, organisation or service used by members of the population of interest), gaining the approval of and participants suggestions from the interview site, and identifying how many participants are required for each category of participant under consideration (Acury & Quandt, 1999, p. 129). The criteria selected for participants in this project were: (1) being involved in either the operations or the establishment of the China business activity, and (2) were they sufficiently senior to understand the objective of the internationalisation event in the broader context of the organisation. These criteria resulted in the need for a senior organisational representative in most cases.

An industry association (described in the section Data Collection Method) was chosen as the interview site for this research. Location is also a key feature of the interview site selection. China would have been a preferable location for this research; however, the interview site management team was able to suggest suitable Melbourne-based participants who regularly travelled to China. As the researchers were located in Melbourne, this location choice offered a substantial cost advantage. Selecting a suitable interview site was a major reason why the interviews could be conducted in Melbourne. After the participants were selected, it was necessary to conduct only one interview outside

of Melbourne. As the study was inductive, it was important that a cross-industry perspective was incorporated to improve the internal validation of the results (Sheu & Lee, 2011). A cross-industry study also provides different disciplinary perspectives on the phenomenon, which improves the representativeness of the findings (Terho, 2009). A review of the literature indicated that three industries (manufacturing, service and finance) were the Australian industries particularly active in China.

In addition to Acury and Quandt's (1999) criteria, research based on perceptual and subjective (interview) data requires sound competencies in interviewing and qualitative analysis (Yin, 2009). The data collection and analysis capacity of the research team made it possible to achieve sufficient depth in the interviews and improve internal validity by ensuring that the full interviews contained common points of reference. Table 2 indicates the experience and skills of the researchers.

### 4.0 OBJECTIVES OF THIS PAPER

The objective of this paper is to demonstrate how to improve interview participant acceptance rates using techniques based on social networks and guanxi. The effectiveness of this approach will be demonstrated by describing its impact on research participant recruitment for a study of Australian firms doing business in China. Research participants were Australian organisations with business activities in China. The data collected addressed the participant's approach to assessing the Chinese market and industry

**Table 1: Key Characteristics of SNT and Guanxi for Attracting Research Participants**

	Researcher 1	Researcher 2	Researcher 3
<b>Training</b>	PhD trained in Qualitative research methods & analytical techniques	Honours, Masters and PhD, research and methods training, taught research methods	PhD trained in Qualitative research methods
<b>Experience</b>	Has conducted 5 studies recruiting & interviewing over 200 interviewees. Experienced in thematic analysis.	12 qualitative research projects completed in Australia and overseas, 15 years of HDR supervision, experienced project manager. Published on the subject matter.	Completed several qualitative studies and sets of interviews. Research and publication focus on the subject matter.

conditions, the entry approaches they adopted and the level of success that resulted. The purpose of the research was to determine whether the Uppsala model of internationalisation theory (Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975) and network models (Johanson & Vahlne, 2009) adequately explained entry mode decisions into China. The research question being investigated in the research project was, "to what extent can internationalisation theory explain the entry mode decisions of Australian companies internationalising to China?"

The phenomenon of internationalisation and entry mode choice to China can be described as a long-term event as the decision-making process can involve lengthy time periods. Internationalisation theory is reasonably well developed. Some of it, however, is based substantially on data from fully developed economies, including the rejection of the Uppsala model. The paucity of the literature examining this model in the context of major developing economies such as China, along with the changing nature of globalisation (which was different when the Uppsala model was rejected) makes it important to re-examine and refine such theory developments (Welch, Piekkari, Plakoyiannaki, & Paavilainen-Mantymaki, 2011).

To examine the explanatory power of this theory in the context of China and refine it (and other potential theories), it was necessary to undertake abductive (both inductive and deductive) research in order to identify the constructs most likely to explain the phenomenon and allow new constructs to emerge (Hyde, 2000). New constructs would be identified by the inductive component. The deductive component was aimed at confirming the validity of existing constructs for internationalisation, including learning, experiential knowledge, incremental steps, social networks, proactivity and motivation.

A structured interview protocol was prepared for interviews with managers of Australian companies who were involved in business in China. The interview protocol was designed to provide sufficient critical examination of the constructs around the theory being examined, whilst allowing sufficient flexibility to accommodate the different approaches taken by each participant in order to identify potential new constructs. It was expected that the data would include inconsistent approaches (Stephan, Murmann, Boeker, & Goodstein, 2003), which necessitated the degree of flexibility in the design. The participants

were unable to provide much documented data, however, because of their status in the organisation and familiarity with the internationalisation process, they were able to provide very specific observations and numerical data (such as dates) of the internationalisation decision and process. The clarity of their observations reflected the significance to their companies of internationalising to China and the difficulties that they experienced. Several papers have been prepared (Chung & Menzies, 2010; Menzies & Orr, 2010) which analysed and interpreted the key findings from this research.

## 5.0 QUALITATIVE RESEARCH & CASE STUDIES

Qualitative research is frequently in-depth, exploratory, experience-based, interpretive and subjective, and refers to research methods that describe and explain persons' experiences, behaviours, interactions and social contexts (Fossey, Harvey, McDermott, & Davidson, 2002). Qualitative research often also asks the 'how', 'why' and 'when' questions (Yin, 2009), and deals with the operational links between constructs. Qualitative research is also suited to deductive research (Creswell, 2007) when research considers new, undeveloped, or complex events which vary in mode and outcome between participants. Yin (2009) and Fossey (et al. 2002) argue that good qualitative research occurs where the research participant's subjective meaning, actions and social contexts can be illuminated by the research.

Case study research is one variant of qualitative research; it excels in aiding the understanding of a complex issue and can extend depth to deductive research results. Case studies incorporate detailed contextual analysis of a limited number of events or conditions and their relationships (Yin, 2009). In this project, the interview transcripts were augmented with documentary evidence provided by the participants and then reviewed by the participants for accuracy before being finalised, so can be considered to represent informal case studies. Yin (2009, p. 6) defines the case study research method as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used". Yin (2009) also suggests that research design must ensure that the data collected possesses construct validity, internal validity, external validity, and reliability (Yin, 2009).

## 6.0 DATA COLLECTION METHOD

As has been established, it was necessary to conduct in-depth qualitative interviews with senior managers of Australian firms who were personally involved with, or knew about their business's activities in China. The data collected needed to facilitate abductive research. The interview protocol incorporated sufficient flexibility to enable the interviewee to describe the event without experiencing the influence of the theoretical frameworks being examined. The interview protocol also contained sufficient structure to ensure common reference points throughout, to ensure internal validity; contained sufficient structure to create construct validity; and provided for deductive testing of constructs in the internationalisation literature.

The Australia China Business Council (ACBC) was selected as the interview site and approached by a member of the research team with strong ties to this institution so as to form a network with the foundation of strong ties (Granovetter, 1973). These strong ties had resulted from the researcher's prior involvement with council activities and the establishment of guanxi with this institution's members. The council was asked to provide in-kind support for the project, which was granted and included access to the council membership list for the purposes of selecting potential interview participants. The researchers were also invited to attend networking events to enable them to establish new weak ties and strengthen existing weak ties. The council also provided general background information on the membership which facilitated the interview participant selection.

Initially, the entire membership list was sent a personalised letter attached to an e-mail describing the project, what was expected of participants, the planned outcomes, the data security and ethical protocols that had been put in place. The correspondence noted that the ACBC and the researcher's university supported the study and mentioned all the researchers' names.

The personalised letter approach resulted in eight participants replying to the email and agreeing to take part in the research. Standard techniques were then utilised to improve the participation rate, which included repeat emails and phone follow-ups, which resulted in a further 18 organisations agreeing to participate. It had been decided that the data should represent the experiences of three industries (to achieve external validity); the minimum number of

participant organisations had been set at 40. This number was required to ensure sufficient responses for each industry group for internal validation, and thematic analysis for each group.

To achieve the target of 40 participant organisations, an alternative approach to gaining participant approval was required. This led to the adoption of SNT techniques for the participant selection and approval granting process. This process needed to be non-discriminatory, non-bias generating (in terms of the type of companies that participated) and encourage senior staff participation. It was believed that the use of strong and weak ties would meet these criteria.

The researchers commenced building social networks by attending ACBC events. This led to the development of Researcher 1 and Researcher 2's strong and weak ties through Researcher 3's strong and weak ties. Weak ties with potential participants where no prior connections existed were also created at the ACBC events. Researchers 1 & 3 attended three ACBC events over a two-month period for this purpose. This process also allowed the researchers to assess more thoroughly the suitability of potential participants than the information provided by the ACBC allowed. This assessment was based on information from potential participants regarding their business, industry, and the nature of the operations that they had established in China. Participants who were found to be suitable were then asked to participate in the research. Reflecting the Chinese concept of face (*mianzi*), the potential participants were less likely to decline if asked face-to-face. This process was, therefore, found to improve the acceptance rate of research participants.

Once the research subjects had agreed to participate, business cards were exchanged, potential dates and times were negotiated, and the basis of future contact was established. This process resulted in five more participants being recruited.

The research team also used their ties independently to identify and recruit participants outside of the ACBC network. In this instance, weak ties were used to connect with new potential participants and other weak ties used to convert them to strong ties. Where no ties existed, the research team member's strong ties were utilised to develop new ties to access the correct participants and encourage them to participate in the research. For example, in one case,

a researcher's strong tie network member introduced another network member to which they had a strong tie. This network member then introduced the researcher to another network member to which they had a strong tie, and who was the most suitable person to report on that company's business activity in China. This method was successful in recruiting a further seven members.

A further two participants were also recruited using the snowball method (Burgess, 1987). At the end of each research interview, participants were asked if they were able to identify any other individuals who could participate in the research. Table 3 provides a summary of the different ways in which participants were recruited for the study.

**Table 3: Recruitment Methods**

Recruitment Method	Number of Interviewees
Initial Email & Letter	8
Repeat Email & Letter	11
Repeat Email, Letter & Phone Follow-up	7
Repeat Email, Letter & Event Attendance	3
Event Attendance	2
Research Team Member's Ties	7
Snowballing	2

**6.1 PARTICIPANT NEGOTIATION PROCESSES**

In most cases, negotiation was a significant component of the joint agreement between the research team and the participants involved in the study. As predicted by the literature, the participants were initially resistant, being concerned that the personal return to them did not justify the time commitment, even though participants were offered a report based on the findings of the study. Some of the negotiations between the researchers and participants occurred whilst taking participants out to meals, at their request. These activities assisted the researchers in developing a relationship with the participant, and were considered a gift by the participant; the

participant's participation in the research was then a reciprocation of that gift. These exchanges were very comparable to the process of guanxi development, for example, which suggests developing the relationship first and transactions second.

Some of the other common paths for securing interview commitments included initial meetings with network members who did not end up being participants in the final research. In some cases, network members who initially expressed interest in the subject matter did not consider themselves to be able to comment adequately on the event and did not wish to participate in the research, but recommended other potential participants. In this case, the network members would undertake to negotiate with other network members in the company to convince them to participate in the project as a representative of the organisation. This usually involved appealing to the superior knowledge possessed by the individual invited to participate.

This approach resulted in a high degree of expected reciprocation as a shared understanding of both parties. The participants exchanged their time for future feedback regarding the outcomes of the project (which they could use to inform further internationalisation decisions). The researchers developed a sense of obligation to provide useful feedback to the research participants in exchange for the time they made available for the project. In addition, the research report became a tangible representation of the guanxi attached to the agreement to participate.

These negotiations generated dialogue with representatives of the organisation and resulted in a formal organisation-level acceptance of participation and the ultimate identification of participants to represent the organisation. During this negotiation process, the company representatives (who had developed strong ties with the research team) were provided with an explanatory statement, an informed consent form and the interview protocol. These documents assisted the representatives to identify the most appropriate interview participants within their organisation (more than one interviewee per organisation frequently participated in the data collection so that a complete perspective was provided). It also assisted the participant to prepare answers to the questions, which was particularly important where the participant drew on others in the organisation to fully respond to the questions.

Negotiation does result in a result bias, however, the bias introduced is normally minimal in the social sciences because the participants report upon business activities which were then abstracted and objectivised by the researchers (Witz & Sung Ah, 2011). Floress, Prokopy, & Allred (2011) suggested that the use of networks (and *guanxi*), does generate a social response bias. The thematic analysis of the data in this research determined that it did not create a professional or disciplinary bias. As a technique for interview participant recruitment, it proved to have the characteristics of broad reach, inclusivity and minimised discrimination against particular participant groups. It was, therefore, found to be suitable for qualitative data collection, although it may be less suitable for quantitative data collection. When interviewing participants about complex issues, such as internationalisation decisions, a researcher may need to develop a relationship with the interviewee to ensure construct validity. Recruiting participants through a network is the first step in building such relationships.

## 7.0 DATA COLLECTION AND ANALYSIS OUTCOMES

Once there was an agreement for an interview to take place with an appropriate participant, the structured interview protocol was distributed to the participant via email, an interview was scheduled and the data collected. Having laid the groundwork for informative interviews when negotiating the final participants from the organisation, the interviews were found to produce rich data, which were strongly focussed on the issues being investigated by the interview protocol. At the time of data collection, any available secondary data were also collected, and a transcript of the interview describing the internationalisation event was prepared. Once the case studies were completed they were content-analysed using the software NVivo 8, which allows qualitative information to be coded. This system allows the data to be interrogated to establish and define themes, once the data has been tagged using a hierarchy of pre-identified and post hoc independent constructs.

### 7.1 ASSESSMENT OF DATA QUALITY

The interviews totalled 281,487 words, indicating that the cases were an in-depth investigation of the topic. The average interview length was 6,702 words. The shortest interview was 1,451 words and the longest interview was 13,085 words.

### 7.1.1 SUITABILITY OF PARTICIPANTS

Forty interviewees were found to be suitable for inclusion in this study (a total of 43 people were interviewed). Three participants were less suitable and provided a significantly smaller amount of information than the remaining participants. One less suitable participant had only been in a role managing operations in China for four months, prior to the interview. Another less suitable participant was the deputy CEO of a large financial institution and had a broad, but only general knowledge of their Chinese operations. This interview was complemented by a second interview from the same organisation. The third less suitable participant had knowledge of only one area of the company's international operations in China, and not a complete perspective. The suitable interviewees were mainly CEOs, Managing Directors or founders of the company, who had either set up the company as a whole or had set up the China operations – and so were extremely suitable participants. The remaining suitable participants were managers who had either set up the China operations or who had an international role, where most of their activities focussed on China. Ensuring that the participants were highly knowledgeable about the phenomenon was a major contributor to the quality of the data collected.

The NVivo data analysis produced a total of 271 nodes; 23 were heading nodes and 248 nodes were sub-nodes or themes. Examples of heading nodes were 'culture' and 'politics', and examples of sub-nodes were 'behavioural differences in business' or 'Chinese government assistance in setting up business'.

### 7.2 ASSESSMENT OF DATA CONSISTENCY

The consistency of the data has been considered from the perspective of construct validity, internal validity, external validity and reliability.

#### 7.2.1 CONSTRUCT VALIDITY

Yin (2009) summarises construct validity using the question, "did you measure what you said you were going to measure?" To ensure construct validity, case study research can incorporate multiple data sources for each case, establish a chain of evidence in the data through thematic analysis, and allow the participants to review a case study report. The method adopted utilised multiple data sources, including printed materials and more than one participant,

where possible. NVivo was used to conduct the thematic analysis to establish chains of evidence and the interview transcripts were returned to participants for approval and correction.

**7.2.2 INTERNAL VALIDITY**

Internal validity is an important measure of data quality for explanatory case studies, which explores the reasons and mechanisms for causes and effects. It is particularly concerned with the establishment of causality. Pattern matching and explanation building, using rival explanations and logic models, are useful approaches for establishing causality (Yin, 2009). Extremely high consistencies in simple measures, such as the understanding of key terms (for example, ‘wholly owned subsidiaries’), were identified. The data were externally validated by comparison with the Uppsala internationalisation model, services internationalisation and network theory. Table 4 below provides a summary of the theories for which the themes resulting from the data were externally validated.

**Table 4: Level of support for theory provided by thematic analysis of data**

Theory	Level of Support
Uppsala Internationalisation Model	Full
Service Internationalisation	Full
Network Theory	Full

**7.2.3 EXTERNAL VALIDITY**

External validity in case study research is an indicator of whether the case study data can be generalised to other organisations through a broader theory. Case studies rely on analytical generalisation and single cases are a poor basis for generalising, although multiple case studies are better. Case study generalisation should be demonstrated through replicating the findings, under conditions where the theory predicts that they should recur. This could include cases that share the same contextual conditions (Yin, 2009). Where replication exists, the findings can be generalised to other cases that share the same contextual conditions (Sheu & Lee, 2011). The necessary conditions for generalisability were incorporated in this research design through the use of multi-industry data, as suggested by Yin (2009). A

cross-industry study also provides different disciplinary perspectives on the phenomenon, which improves the representativeness of the findings (Terho, 2009).

**7.2.4 RELIABILITY**

Research outcomes that can be reproduced in another study utilising the same methods are reliable (Yin, 2009). Reliable qualitative data collection results from the design of methodologies, which minimises errors and bias and utilises a systematic protocol. The method for this project was systematic; the first stage involved contacting the entire list of the ACBC via email, with a follow-up e-mail and then a follow-up phone call. The second stage involved the use of social networks and snowballing to recruit participants. This recruitment method minimised errors and bias by focussing on attracting the most informed participants with the broadest view possible (e.g., Managing Directors and executive level staff). The interview protocol is available from the authors on request.

**8.0 DISCUSSION**

The findings above indicate that trade association endorsement, SNT and *guanxi* are the foundations for the design of interview recruitment processes where interviewee resistance is high and where the research requires senior staff perspectives. The management of the participant committal process as a network relationship and *guanxi* application established sufficient trust and created a basis for mutual understanding. This was found to result in a shared belief that the information exchange would be sufficiently confidential and valuable for both researchers and participants. The application of this process transformed the participation rate, from eight participants who responded to our initial emails, to 43 participants of which only three were not able to contribute highly valuable data (and who then brought in other staff to contribute). The quality of the data gained from this process was very high, providing details of highly specified data, which enabled a large number of themes to be identified, satisfactory levels of internal validity and high levels of construct and external validity. The robustness of the process was high as a result of the systematic and repeatable nature of the interviewee selection and data collection process.

The need to adopt this participant selection and negotiation process reflects several important characteristics for business events such as

internationalisation; the participants' desire for high levels of confidentiality; a need for shared language and perspectives; and a lack of documented evidence regarding the event requiring senior staff (staff possessing a broad and comprehensive view of the event) to be involved in the data collection process. This research has determined that social networking and *guanxi* can be used to improve participant acceptance rates, while also ensuring that the validity and detail of the data collected were upheld. Data were not collected from a control group (a group which did not participate through social networking as part of this project), so a comparison of the internal consistency and level of detail of the data collected could not be conducted. Comparison with other empirical studies suggested that the validity, reliability and number of identified consistent themes were greater than would normally be expected from a multi-industry study (Stephan et al., 2003). Improved participant agreement rates were found to be a result of the endorsement of an interview site (ACBC), repeat emails, follow-up phone contact, following up email requests by attending ACBC events, and meeting with individuals who had been asked to participate.

Negotiating with network members, including those who attended ACBC events and those in other networks, the use of the researchers' strong and weak ties, and using the report as an item to exchange with participants for their time were all influential in recruiting participants. The negotiation process also generated a level of organisational agreement to participate which improved the consistency of the case study interpretation. This finding is also supported by the literature (eg. Hasse & Trentemøller, 2009) and had a flow-on effect on simplifying the thematic analysis process. The strong convergence in the data on the key themes resulted in an efficient and robust thematic analysis. Thematic analysis can be subjective if the data are very ambiguous. Parallel thematic analysis of the data was conducted to confirm the thematic analysis results and a comparison of the analyses identified almost 100% consistency. This outcome made the thematic analysis process as effective as the convergent interview technique on the performance measure of reliability, without the drawback of being capable of identifying only a limited number of themes (Driedger, Gallois, Sanders, & Santesso, 2006). The thematic analysis, combined with SNT for the recruitment of participants, resulted in the identification of 271

theme nodes, compared with the typical identification of up to six themes when the convergent interview technique is used (Dick, 1990; Dick, Godden, Healy, & Lebrun, 1996; Gill, White, & Cameron, 2011).

A possible weakness of using SNT for the selection of participants is that the focus on the research questions of the selected respondents (which is also a positive characteristic, as described above) may have reduced the number of identifiable constructs describing the phenomena that were identifiable in the data. In other words, the enthusiasm that the participants had for their involvement in the project, and the research questions the team wished to investigate, may have increased the deductive and reduced the inductive power of the project. Given the sample size and number of industries covered, however, this was unlikely to be a problem. In addition, too great a diversity in the constructs emerging from the data would have spread the evidence too thinly across the constructs and reduced the reliability of the thematic analysis. The nature of the interview process means that the amount of data that can be collected from each organisation is finite and, so, the more diverse the responses, the more limited the data supporting each theme becomes.

## 9.0 CONCLUSION

SNT theory and *guanxi* can be utilised to improve participant rates for interview-based data collection processes where the need for time-poor participants, concerns for confidentiality, the need for shared language and perspectives and limited secondary data (such as company records) exist, such as in the case of Australian firms doing business in China. The research determined that an improvement in external construct validity and reliability of the data resulted from the use of this approach for participant recruitment, which facilitated the reliability of thematic analysis. Where data are being collected from sources such as cross-industry participants and a greater level of variation in the data can be expected, mechanisms that improve the internal consistency of the data are a valuable research tool.

This project provides evidence that adopting social network practices for participant selection resulted in a markedly improved response rate, higher quality data, and facilitated the data analysis. The costs associated with both data collection and analysis for empirical inductive and deductive research involving a larger number of participants can be quite significant,

so maximising the value of the data collected and facilitating the data analysis is an important research design consideration. The social network process adopted required the research team to participate in an extra process (developing the network and negotiating participation) and represented an extra project cost. It was not possible to delegate this process to research assistants as both the symbolism of the chief researchers (such as trustworthiness and authority) and their knowledge of the project and its justification were required for the success of the social network-based participant selection. The extra cost was compensated for, however, by the reduced cost of the analysis.

Further investigation of the use of SNT and guanxi as a participant selection process for inductive research is justified by the conclusions drawn from this research. Future research conducted using single industry participants (where the effect of exogenous factors such as variations in terminology and industry conditions would be less significant), and incorporating a control group of participants organised using conventional techniques, would enable further testing of the effect of this technique on the validity and reliability of the data and the subsequent facilitation of the thematic analysis.

## 10.0 REFERENCES

- Acury, T. A., & Quandt, S. A. (1999). Participant recruitment for qualitative research: A site based approach to community research in complex societies. *Human Organization*, 58(2), 128-133.
- Barabási, A. (2002). *Linked: The New Science of Networks*. Cambridge: Perseus Publishing.
- BarNir, A., & Smith, K. A. (2002). Interfirm alliances in small business: The role of social networks. *Journal of Small Business Management*, 40(3), 219-232.
- Bartholomew, S., & Smith, A. D. (2006). The importance of social networks. *Entrepreneurship Theory and Practice*, 30(1), 83-96.
- Beaunae, C., Wu, C.-H., & Koro-Ljungberg, M. (2011). Exploring Performativity and Resistance in Qualitative Research Interviews: A Play in Four Acts. *Qualitative Inquiry*, 17(5), 412-421. doi: 10.1177/1077800411405166
- Bell, D. (2000). Guanxi: A Nesting in Groups. *Current Anthropology*, 41, 132-138.
- Bjorksten, J., & Hagglund, A. (2010). *How to Manage a Successful Business in China*. Singapore: World Scientific Printers.
- Buchanan, M. (2002). *Nexus: Small Worlds and the Ground Breaking Science of Networks*. New York: W.W. Norton and Company.
- Burgess, R. (1987). *In the Field: An Introduction to Field Research*. London: George, Allen & Unwin.
- Chung, M., & Menzies, J. (2010). Australian businesses in China: Strategies to overcome the cultural gap. *International Journal of Asian Business and Information Management*, 1(1), 42-53.
- Creswell, J. W. (2007). *Research Design: Qualitative & Quantitative approaches*. Thousand Oaks Sage.
- Cycyota, C. S., & Harrison, D. A. (2002). *Top manager responses to organizational surveys: When questioning executives, are networks the answer?* Paper presented at the Academy of Management Proceedings, Denver.
- Dick, B. (Ed.). (1990). *Convergent Interviewing*. Chapel Hill, NC: Interchange.
- Dick, B., Godden, L., Healy, K., & Lebrun, M. J. (1996). The use of action research in developing curricula in law: Convergent interviews and the "offices" project. *The Law Teacher*, 30(1), 28-43.
- Driedger, S. M., Gallois, C., Sanders, C. B., & Santesso, N. (2006). Finding Common Ground in Team-Based Qualitative Research Using the Convergent Interviewing Method. *Qualitative Health Research*, 16(9), 1145-1157. doi: 10.1177/1049732306289705
- Floress, K., Prokopy, L. S., & Allred, S. B. (2011). It's Who You Know: Social Capital, Social Networks, and Watershed Groups. *Society & Natural Resources*, 24(9), 871-886. doi: 10.1080/08941920903493926
- Fossey, E., Harvey, C., McDermott, F., & Davidson, L. (2002). Understanding and evaluating qualitative research. *Australian and New Zealand Journal of Psychiatry*, 36, 717-732.

- Gill, L., White, L., & Cameron, I. (2011). Qualitative Triadic Study of the Relational Factors Influencing the Formation of Quality in a Community-Based Aged Health Care Service Network. *Health Marketing Quarterly*, 28(2), 155-173.
- Graham, J. L., & Lam, M. L. (2003). The Chinese negotiation. *Harvard Business Review*, October, 1-11.
- Granovetter, M. S. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 78, 1360-1380.
- Grant, R., Butler, B., Hung, H., & Orr, S. (2011). *Contemporary Strategic Management: an Australasian Perspective*. Milton: Wiley.
- Hammond, S. C., & Glenn, L. M. (2007). The ancient practice of Chinese social networking: Guanxi and social network theory. *E:CO* 6 (1-2), 24-31.
- Hasse, C., & Trentemøller, S. (2009). The Method of Culture Contrast. *Qualitative Research in Psychology*, 6(1/2), 46-66. doi: 10.1080/14780880902900903
- Hyde, K. F. (2000). Recognising deductive processes in qualitative research. *Qualitative Market Research*, 3(2), 82.
- Johanson, J., & Vahlne, J. E. (1977). The internationalization process of the firm: A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1), 23-32.
- Johanson, J., & Vahlne, J. E. (2009). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies*, 40(9), 1411-1431.
- Johanson, J., & Wiedersheim-Paul, F. (1975). The internationalization of the firm: Four Swedish case studies. *Journal of Management Studies*, 12(3), 305-322.
- Linong, Z. (2006). *China Business: Environment, Momentum, Strategies and Prospects*. Singapore: Pearson Prentice Hall.
- Menzies, J. L., & Orr, S. (2010). The impact of political behaviours on internationalisation : the case of Australian companies internationalising to China. *Journal of Chinese economic and foreign trade studies*, 3(1), 24-42.
- Rochford, L., & Venable, C. F. (1995). Surveying a targeted population segments: The effects of endorsement on mail questionnaire response rate. *Journal of Marketing Theory and Practice*, 3, 82-98.
- Sheu, D. D., & Lee, H.-K. (2011). A proposed process for systematic innovation. *International Journal of Production Research*, 49(3), 847-868. doi: 10.1080/00207540903280549
- Stephan, J., Murmann, J. P., Boeker, W., & Goodstein, J. (2003). Bringing managers into theories of multimarket competition: CEOs and the determinants of market entry. *Organization Science*, 14(4), 403.
- Terho, H. (2009). A Measure for Companies' Customer Portfolio Management. *Journal of Business-to-Business Marketing*, 16(4), 374-411. doi: 10.1080/10517120902762542
- Tomaskovic-Devey, D., Leiter, J., & Thompson, S. (1994). Organizational survey response. *Administrative Science Quarterly*, 39(3), 439-457.
- Wang, Y., Zhang, X. S., & Goodfellow, R. (1998). *Business culture in China*. Singapore: Butterworth Heinemann.
- Watts, D. J. (2003). Six Degrees: The science of a connected E:CO, 6 (1-2), 24-31.
- Welch, C., Piekkari, R., Plakoyiannaki, E., & Paavilainen-Mantymaki, E. (2011). Theorising from case studies: Towards a pluralist future for international business research. *Journal of International Business Studies*, 42 (5), 740-762.
- Witz, K. G., & Sung Ah, B. (2011). Understanding Another Person and Cooley's Principle of Sympathetic Introspection: Consciousness in the Study of Human Life and Experience II. *Qualitative Inquiry*, 17(5), 433-445. doi: 10.1177/1077800411405167
- Yin, R. K. (2009). *Case study research: Design and methods* (4 ed.). Thousand Oaks: Sage.

## INVITED COMMENTARY

### ***Joseph Banks (1743-1820): The market researcher whose client was the British Empire***

**David T. Bottomley<sup>1</sup>**

Joseph Banks IV, later Sir Joseph Banks, Privy Councillor and from 1778 President of The Royal Society of London for forty-nine years is part of the Australian legend. But legends may hide or distort the facts on which they are based and, sometimes, the facts may be more fascinating than the legend. Banks, the botanist, was an internationally acclaimed scientist whose prominence transcended the wars and international politics of his time<sup>2</sup>. Following his voyage with James Cook, 1768-1781, he strongly urged the British Government to establish a settlement in New South Wales and thus he could be regarded as 'a Father of Australia'. What, today, do we Australians know of 'our' Joseph Banks? Perhaps we think of James Cook, a supreme navigator and map maker with whom Banks travelled on Cook's first voyage around the world; perhaps from childhood school lessons we think of that esoteric thing, 'the transit of Venus' which we might never have understood; perhaps, if gardeners, we recognise in our gardens the living memorials to Banks represented by one or other of our seventy-five native species and numerous hybrids of *banksia*<sup>3</sup>. Marketers and market researchers may not know that Banks' international market research activities involved two Governors of New South Wales and a famous Australian pastoralist.

Banks as a scientist and market observer closely followed European scientific developments and as Royal Society President he was aware of the latest British papers. He was a friend and adviser to George III and in charge of the Royal Kew Gardens where he studied developments of commercial crops. He used the Royal farms at Windsor for experimental stock breeding. His market research activities included sending an investigator to interview merchants in Europe about their 'image' of British textiles; he, himself interviewed British traders and sailors about market activities in other countries and he used a crop sampling procedure to investigate pests in cereal imports. With friends in high places, his

industrial market investigations tended to be mixed with an element of diplomatic intrigue. He applied his scientific skills as a botanist to produce products to fit markets. For the five examples cited in this paper, he had a clear marketing objective: to improve Britain's balance of trade by producing higher standard and more acceptable British and Empire products. His clients for his international research activities included the British Government, the inner council of the British East India Company, trade and private interests. His considerable wealth made him independent of client prejudices and gave him freedom to initiate and control his own investigations.<sup>4</sup>

Joseph Banks 'was the fourth in as many generations to carry that name: an uncle, a grandfather and a great grandfather were all 'Joseph Banks'. It was the great grandfather who founded the family wealth. Joseph Banks the first, 1665-1727, of Ribblesdale, Yorkshire was a successful lawyer who held a number of important municipal positions and was the agent for several large ducal estates. He made money through land speculation with which he bought at £3 an acre about 3,000 acres of marginal land in Lincolnshire; low land in need of draining. Most of Joseph Bank's relatives lived the life of landed gentry, attending to their estates and civic and parliamentary duties.<sup>5</sup> Joseph Banks attended Harrow and Eton where his teachers reported him an indifferent scholar until according to two of his biographers<sup>6</sup> quoting the same hearsay source; he had a 'conversion'. At age fifteen, one summer's evening after swimming in a river he was wandering home at sunset when the bright, low light lit up flowers in the hedges. He decided his field was in flowers.<sup>7</sup> Subsequently, he paid women who gathered medicinal plants for apothecaries to teach him about the plants and their uses, and he studied botanical books to the extent that when he arrived at Christ Church, Oxford 'he was already a botanist'<sup>8</sup>

Banks completed his time at Oxford in 1764, not taking a degree. He read Botany at the new British Museum where he arranged for Dr Daniel Solander, assistant librarian and distinguished botanist, to give him further lessons in Botany. By then, aged 21, he had come into his inheritance, his father having died in 1761. He had money; and friends in the navy and government and in 1766 was able to make his first journey of exploration with his friend from Eton, Lt. the Hon. Constantine John Phipps who was on leave after seven years navy service. Phipps later became Lord of the Admiralty. Banks and Phipps travelled as supernumeraries on the naval frigate, *Niger*, bound for Newfoundland to protect the British fishing fleet against possible trouble with French fishermen. Carter, his main biographer dryly remarks 'we do not know how' Banks and Phipps organised this trip.<sup>9</sup> The six-month's trip provided Banks with many opportunities for botanizing on land and investigating fish at sea. During this trip he was elected a Fellow of the Royal Society. In the twelve months following the 'Niger' voyage Banks enlarged his knowledge and expertise through intensive travels in England and Wales in which his eclectic genius exercised itself in speed of travel and range of enquiries whilst, at the same time, maintaining extensive correspondence, keeping in touch with the documentation of his 'Niger' collections and answering his farm manager's many reports and questions. Banks's excursions covered bird spotting and classification, observations of dairy herds, fishing methods, coal, copper, clay, limestone and lead mining and refining together with mining methods, and associated geology; use of water power, canal construction and large steam-operated pumps; technical developments in the spinning and weaving industries; sea-shore fossils and creatures; England's naval ports and their defences; manufactures and manufacturing. He regretted he lacked the time for archaeological pursuits such as digging into the various barrows he passed. He made notes on the architecture of the grand houses where he received hospitality and, everywhere, he sought plant specimens. As necessary, he travelled an astonishing hundred miles a day by post-coach. If roads were bad or no coach available, he would ride or walk a few miles to visit a factory.<sup>10</sup>

In November, 1767, 'a sub-committee of the Royal Society Council was deliberating ... the places proper to observe the ensuing Transit of Venus, and the method, the persons fit, and other particulars relative to the same ...'<sup>11,12</sup> The sub-committee proposed

Alexander Dalrymple to take command of the expedition but the Navy refused to place a ship under a civilian, and Dalrymple withdrew leaving the field open for Banks to negotiate adding his own entourage to the expedition for natural history observations. Carter said, 'There are few documents to tell us how it did it.'<sup>13</sup> Offering to pay his party's huge costs possibly helped! In Bank's party were Joseph Banks himself and Daniel Solander as the scientists, Alexander Buchan and Sydney Parkinson, draughtsmen, their four field assistants Peter Briscoe, James Roberts, George Dorton and Thomas Richmond, the two latter being Banks' negro servants, and Herman Spöring, expedition secretary and artist. Appointed by the Government as astronomer for the expedition was Thomas Green, Assistant British astronomer, and his servant. According to Solander, the costs to Banks would have amounted to £10,000<sup>14</sup>, a figure equivalent to two years' gross income from his considerable estates. In 1772 Banks did not go with Cook on his second voyage, deciding to explore closer at home. Illustrating his wealth and broad scientific interests he hired a ship and with a party of eighteen explored and botanized around the coast of Iceland, the Orkney Islands and visited Edinburgh.

### ***Reducing costs of sugar production***

The staple cereal for slaves on the English-owned sugar plantations in the West Indies was derived from plantains but their trees were 'so vulnerable to high winds'.<sup>15</sup> Owners sought a more secure crop. In 1772, a friend and one of Banks' London neighbours, Valentine Morris, who owned property and slaves in St Vincent, asked Banks if he could introduce breadfruit to the West Indies which, if successful, would, Morris thought, 'procure to its inhabitants....one of the greatest blessings they could possess.'<sup>16</sup> Various other interested bodies also tried, without success, to get someone to import the bread tree into the West Indies. Banks would have been aware of breadfruit, if not before, certainly on the first day Cook's ship, the *Endeavour*, anchored in Tahiti's Matavi Bay and was surrounded by canoes from which the occupants '... traded very quietly and civilly (sic), for beads chiefly (sic) in exchange for which they gave Cocoa nuts, Bread fruit(,) both roasted and raw (,) some small fish and apples...'<sup>17</sup> Some years later, in 1787, Banks drew the attention of Lord Hawkesbury, President of the Board of Trade to the need. Prime Minister Pitt agreed to take action, knowing that the French were already moving useful plants from the Pacific to the West Indies. The Admiralty selected a naval vessel,

named it HMS Bounty and placed it under Banks' direction. Banks obtained the service of William Bligh who had held the position of Master for Cook's third and fatal voyage, appointed David Nelson as the responsible gardener and William Brown as his assistant. The expedition sailed from England on 23 December, 1787, bound for Tahiti. Banks gave detailed instructions for the care of the plants on the journey from Tahiti to the West Indies. They included how much space should be allowed for the barrels in which the plants were growing, their watering, how the salt from the sea air should be regularly washed off their leaves and their priority for the ship's water. After loading breadfruit plants at Tahiti, Bligh's journey was interrupted by the mutiny of 28 April, 1789 followed by his famous Pacific navigation of an open boat with some of the crew who had not sided with the mutineers. Is it possible that the plants' priority for water contributed to the mutiny?

On Bligh's second attempt, 1791-93, again under Banks' direction and this time in two naval vessels; Providence and Assistant, Bligh's gardeners potted 2126 breadfruit plants<sup>18</sup> in Tahiti and successfully delivered 300 bread-fruit trees to Jamaica, 300 to St Vincent and, presumably a number to St Helena where the ships called.<sup>19</sup> Unfortunately, the West Indian slaves refused to eat the breadfruit! It seemed a classic pre-marketing-era case of giving all attention to manufacture and delivery of the product; none to marketing it to the customers! Banks on Cook's first voyage had found them edible and pleasurable. The natives of Tahiti ate them and also used a by-product in cooking. Might it have been the case that the breadfruit for the slaves was not properly prepared or that the slave-owners set no example?

For his services, 'In 1805 Sir Joseph Banks procured for Bligh the Governorship of New South Wales colony.'<sup>20</sup>

### ***Seeking a brighter red***

Banks had noticed that tapestries from France included a particularly brilliant scarlet colour. He wanted to gain the advantage of the colour for British weavers. The cochineal dye or "Dutch scarlet" was derived from insects which prospered on a particular host plant, referred to as 'Nopal'. Up to a year before Banks' election as President of the Royal Society, the best strain of cochineal insects and the most favourable conditions for their propagation existed in Mexico ('New Spain') and constituted a closely held Spanish monopoly. A French naturalist, Thierry de Menonville

'In 1777...succeeded with official French Admiralty support, in transferring the two varieties of cochineal insect and their obligatory host plant from Oaxaca in Mexico to Port au Prince in San Domingo, West Indies. The French action was described by Carter as 'a plain exercise in commercial espionage'.<sup>21</sup> Banks set himself the tasks required to develop high grade cochineal on a commercial basis without having the French specimens. He had to determine the botanical nature of the main strains of insects and their host plants and in what countries strains were available that might be satisfactory for development; the best combinations of the two, the most favourable geographical conditions for their growth, how to transport them to his test areas such as his greenhouses in the Royal Gardens at Kew or the gardens of the East India company, how to propagate them to a commercial scale and then to manufacture the dye. Actually, Banks favoured direct action to ensure success – smuggling French specimens from the West Indies but nothing came of it.<sup>22</sup> Banks took action in 1777, arranging with Governor Arthur Phillip to collect Brazilian specimens when the first Fleet en route to New South Wales called at Rio de Janeiro. This Phillip did. He took the specimens with him to Botany Bay and managed to keep them alive through the settlement's first Australian winter. Banks gained further information in 1778 from the book published by Thierry de Menonville about Nopal and Cochineal Insects which Banks quickly translated and prepared a summary. Banks tried again in 1792, arranging for a member of the British Embassy party to China, to send back suitable specimens from its stop in Rio de Janeiro. The specimens arrived in London in February, 1793 but Banks was not successful in keeping them alive. Banks continued experiments in Calcutta with the British East India Company, and by 1796 Banks was satisfied that the East India Company could develop a cochineal industry that would break the French monopoly. However, it would not be based on the highest quality of cochineal to obtain which 'artifice and cunning' would be necessary.<sup>23</sup> Banks then withdrew from the project owing to inconstant interest and inadequate funding by the East India Company Council.

### ***Reducing outflow of silver bullion***

Getting tea from other parts of the Empire and not relying wholly on trade with China had been in the thoughts of the inner council of the East India Company and, also, that of Lord Hawkesbury, President of the Board of Trade who in 1788 asked Banks:

Will it not be possible by proper Premiums and wise Instructions to encourage the Growth of the Tea Plant, and the manufacture of it's (sic) leaves in some Part of the British Dominion in the East and West Indies, so as to be supplied from thence with a Part of the Tea consumed in this Country, and not with the whole as at present from China?<sup>24</sup>

There was urgency in Hawkesbury's request because the British were drinking more tea and the Chinese would not trade for it. They required foreign traders to pay in silver bullion. 'On 27 December, 1788, Banks delivered to William Devaynes, Chairman of the East India Company, a two thousand-word memorandum on the possibilities of tea cultivation in India.'<sup>25</sup> Banks wrote:

In obedience to your wishes I readily undertake to give my opinion relative to the possibility of Tea becoming an object of cultivation in the possessions of the East India Company and the probable means of effecting that very desirable object...All undertakings of new manufacture should commence with articles of inferior quality, they being less difficult in preparation and more certain (as they fall into the hands of the lower order of people) of being admitted into immediate use than higher-priced Commodities, intended for the consumption of those who have more distinguishing palates and fewer reasons for being economical in their purchases...Black teas are exactly in this predicament and they may certainly be cultivated with success in the Northern parts of the province of Bahar and Coosbeyhar, for instance, where the latitude and the cooling influence of the neighbouring mountains of Boutan give every reason to expect a climate eminently similar to the parts of China in which Black Teas are at present manufactured...If then the Culture of Black Teas is once established in Bahar and the inhabitants of Boutan are invited by proper inducements they will certainly undertake that of the Green and thus by a gradual change the whole of the Tea Trade will be then transferred into that quarter.'<sup>26</sup>

Banks' thinking also extended to considerations that India had the conditions and capacity to produce indigo, chocolate, coffee, vanilla, cochineal and cotton, even sugar – though the latter, he said, would compete with British plantations in the West Indies.<sup>27</sup>

Banks' plan was ingenious. It was a 'trade-off' between the desirable and the feasible. He understood that the best tea plants grew and were processed in the interior of China. Apart from the likely problems in getting the permission of Chinese authorities, Banks did not altogether trust the East India Company agents in Canton (now named Guangzhou) to secure and look after tea plants. Banks' extensive library provided him with references over the previous century and in four languages about aspects of tea culture in China. He also questioned merchants involved in the China tea-trade and East India Company officers with China experience. His thinking caused him to turn his attention to Hainan Island, just off China's southern coast, where second-rate tea was grown. Banks considered he had the expertise to improve the quality of the plants but what he needed was expertise in cultivating and processing the tea plants. Drawing on the fact that British traders could find Chinese in Canton willing to crew their ships Banks' thought it feasible to appeal to Chinese tea farmers in Hainan Island to emigrate to India bringing their tea plants and cultivating tools with them; to have them grow the plants in twenty acres of the East India Company's botanic gardens in Calcutta and when appropriate, move the Chinese farmers to areas Banks had identified as suitable for tea cultivation on a commercial scale. In the process Banks expected the Chinese farmers would teach Indians how to cultivate and cure the tea leaves and so establish a tea industry in India.<sup>28</sup>

Banks had firm marketing opinions. In effect, he said, first build a mass market with what he personally considered an inferior product and then extend it with superior, more expensive products that would appeal to the minority with refined tastes, or even transform the market to higher grade products. Banks' description of market development was the reverse of the way most markets develop; they start with the 'early adopters' paying high prices and then widen their appeal with lower prices as production costs decrease. But Banks was not setting out to make a new market, as he supposed. He was, in effect, aiming to bring a new brand, 'Indian tea' onto an existing English market monopolised by the brand, 'China tea'. In fact, it was fifty years before India developed its industry and exported tea to Great Britain.<sup>29</sup>

### ***A finer, heavier fleece***

In autumn, 1781, the farmers of Lincolnshire engaged Banks to improve their wool better to compete with growers on the Continent.<sup>30</sup> It was the beginning of another major task and this one was very successful. Banks immediately set about understanding the international standing of British wool and developed a network of informed people to get continuous market information. What we would regard as normal market research, Carter regarded as ungentlemanly behaviour. He describes Banks first action of sending an assistant to the Low Lands to gain information about the wool trade as 'a mission of mercantile espionage.'<sup>31</sup> What was at issue was protection of the long, fine wool produced in Lincolnshire and of which 'the graziers were so proud and the Yorkshire merchants so jealously possessive'.<sup>32</sup> Banks' first finding was that people in the European wool trade did not regard the Lincolnshire wool as highly as its producers. The Europeans had, in fact, their own source of high quality, long fibre wool in Saxony (part of modern Germany) from cross-breeding local sheep with Spanish Merinos which had been a gift from the Spanish court in 1765; it was not the first time European royalty had acted against its own strongly protected national monopolies. Banks' second action of entering into 'correspondence with all the merchants of Europe where the woollen manufactory is at all Flourishing'<sup>33</sup> provided him with information about wool trade distribution patterns and trends. Producing finer and heavier fleeces in British sheep was, perhaps, Banks most commercially successful venture: it improved Britain's wool exports and served Banks' aim of making the Colonies more financially self-sufficient, and it involved the Australian, John Macarthur. Through his extensive travels, including his voyage around the world with James Cook in 1768-71, Banks had accumulated copious specimens of a number of fields. At his home in Soho Square, London, Banks employed scientists to examine and classify his specimens. Despite the various wars with France, a young Frenchman, Pierre Broussonet, a zoologist, worked on Banks' collection of fish specimens culminating in 1782 in a publication in French and Broussonet's election as Fellow of the Royal Society. Broussonet became assistant professor at the Royal Veterinary School in Paris. The professor, Louis Daubenton, was 'an experimental breeder of sheep under government patronage' and had access to France's flock of Spanish fine wool sheep, presumably Merinos. Daubenton published three papers between 1777 and 1784 on care of the

Merinos and their breeding which greatly added to Banks' knowledge on the subject! In 1784, Broussonet offered Banks rams from the French Merino stud and in July, 1785, Banks received a ewe and a ram from the French Royal Veterinary School. Carter writes that owing to the English embargo laws Banks was unable to respond with English long-woolled sheep – he sent turnips instead! Would Banks have wanted to send sheep? This was a commercial war with tremendous implications for the English wool trade. Banks did send to Broussonet for use at the Veterinary College enough English turnips to sow 6,500 acres, and Chinese hemp seeds.<sup>34</sup>

At Spring Grove, one of Banks' farms near Hounslow, Middlesex, over the next three years Banks was able to cross the Spanish ram with a variety of English and Scots sheep representing the main types of British wool-producing sheep. The results were immensely satisfying as the cross-breeds' wool was considerably finer and yielded heavier fleeces than their British antecedents ensuring success into the next century for British woollen cloths. However, Banks wanted specimens of Merinos directly from Spanish flocks. It was 1791 before he achieved that objective when as a gift to George III from the former Spanish Ambassador and his wife thirty-eight pure bred Spanish sheep, ewes and rams of the Negretti strain arrived in England and were installed on Royal pastures at Windsor. 'This was the nucleus of the flock that was to be Banks's constant care and preoccupation for the next 15 years.'<sup>35</sup> The flock entered into Australian history in 1804 when the King and Banks had agreed to sell some of the Royal flock to selected people. John Macarthur, already producing Merino wool of fine quality in New South Wales from Spanish sheep bred by the Dutch in Cape Town, bought seven rams and one ewe from the King's flock. He returned to Australia with a British Government recommendation to Governor King of New South Wales that Macarthur be granted at least 5,000 acres of pasture land 'specifically for the breeding of fine-woolled sheep.'<sup>36</sup>

### ***Sampling procedures***

Banks had high-level clients and worked hard and fast to deliver his reports. On 29 May 1788 by letter, the Foreign Secretary, Marquis of Carmarthen, asked Banks' opinion about handling imports of North American wheat which might contain the eggs of injurious insects which, at that time, were affecting the American wheat industry. On 5 July Banks met

a high-level committee of the Privy Council: 'Here it was agreed that Banks should prepare his opinion of a method of inspection by the Commissioners of His Majesty's Customs suitable for application at the ports to the cargoes of grain from America.' At a speed not unknown to modern market researchers, by Sunday 6 July, Banks submitted 'his proposal for the testing of the grain cargoes by a process of sampling.'<sup>37</sup>

The grain in the cargoes of two ships held at Southampton were duly sampled by Banks' method, found free of the insects and released. Historians tantalise us: just what process of sampling was described by Banks? That he was so quickly able to recommend a sampling procedure suggests he might have been familiar with sampling procedures of the mathematicians, de Moivre and contemporary Laplace<sup>38</sup> or, simply, as a farmer, he could have been familiar with age-old sampling procedures to determine likely grain crop yields.

Banks recommended that should there be any doubts about a cargo it should be kiln-dried and fumigated with sulphur Banks emphasised '...that in a matter of such serious consequences to the prosperity of Great Britain, a positive proof of danger is not requisite, on the contrary, a positive proof that no danger whatever exists should be exacted...'<sup>39</sup>

'The figure of Sir Joseph Banks is still only faintly etched on the historic records of the past two centuries' wrote Harold B. Carter, who spent twenty-five years at the British Natural History Museum compiling 15,000 items relating to Banks' work. For all Carter's tremendous work he felt there was more to be done to identify Banks' place in history. He wrote in his Preface 'For all that remains to be done, enough has now been gathered into one place to re-compose the fragments of a life, too long neglected among historical studies, into a skeletal structure on which the flesh of more particular themes may now be hung.' In this paper I have attempted to hang the flesh of market research and analysis onto Bank's historic frame. The five case studies I have outlined are examples of Banks' vision, methods and achievements (and failures). The attempts to build a cochineal industry, to develop a tea industry in India and to improve the economics of West Indian sugar plantations were long-term projects which proved exceedingly costly to the British Admiralty or the East India Company. Introducing sampling of primary produce for quarantine purposes and greatly

improving the British wool industry by cross-breeding various strains of British sheep with Spanish Merinos greatly benefitted British trade long-term. Banks' considerable wealth gave him the independence to act; his wide understanding of export trade, his wide knowledge of how the industrial and natural worlds worked and his wide circle of influential friends provided the means for his studies.

## REFERENCES

- 1 dtb@operamail.com
- 2 The prime reference for this paper is Carter, H. B. (1988). *Sir Joseph Banks 1743-182*. London: British Museum (Natural History). Harold Carter, a Sydney University Graduate and a former scientist with the Australian Government organization, the *Commonwealth Scientific and Research Organisation(CSIRO)* Carter worked for over twenty-five years at the British Natural History Museum bringing together Banks' scattered papers to form, in his words, 'an organised research archive of general utility' which brought together over 15,000 items. In the Appendix xxvii to his book he lists the Honours that Banks received in his lifetime. Stressing the attempts by scientists of Banks's time to place their loyalties to international science above politics, French scientists during a time of warfare between France and Britain, recognised Banks's achievements by electing him as a foreign member to three French Academies: Royal Soc. of Agriculture, Paris, 1785; Institut National des Sciences et des Arts, Paris, 1802; Academy of Sciences, Arts and Literature, Dijon, 1803.
- 3 <http://www.ambg.gov.au/banksia.html>, downloaded 12 Dec. 2009
- 4 Banks wrote, '... nor do I mean to receive a Salary from the Government. My independence (sic) of action and opinion I value beyond anything that can be given to me and as I am not or ever have been in Parliament I have not even a Vote which I can give to a Minister.'(Carter, p. 539)
- 5 His uncle Robert Banks, 1722-1792, was an exception. When 17 he was indentured to a member of the Bristol Society of Merchant Adventurers and for four years took shares in various merchant shipping ventures, including privateering on the Spanish Main during a British war on Spain which aimed at capturing the Spanish colonies in the West Indies. After Joseph's father's death, Robert was Joseph's guardian for the three or four years until he reached his majority, and they made and continued a life-long friendship. (Carter, pp. 19-22 )
- 6 Cameron, H. C. (1952). *Sir Joseph Banks*. Sydney. Angus & Robertson. (p. 2) and Lyte, C. (1980). *Sir Joseph Banks: 18th Century Explorer, Botanist and Entrepreneur*. Sydney & Wellington: A. H. & A. W. Read. p. 14
- 7 This is a plausible story as genius frequently manifests itself at an early age. For example, Sir Edward Frankland, at age ten was experimenting with chemistry and physics. He built a device which generated static electricity from which he produced a spark. He wrote: 'Never shall I forget the supreme happiness of that moment'. [Russell, C. A. (1986). *Lancastrian Chemist: The early years of Sir Edward Frankland*. Milton Keynes, England: Open University Press. (p. 79). Oliver Sacks before he developed his interest in chemistry described at age six that he 'liked numbers because they were solid, invariant; they stood unmoved in a chaotic world' and (later) that he 'loved prime numbers'. (Sacks, O. (2002). *Uncle Tungsten: Memories of a chemical boyhood*. London: Picador. (pp. 2-3)]
- 8 Cameron (1952), p. 2.
- 9 Carter (1988), p. 33.
- 10 Ibid. Chapter 3, parts I-III, present an almost breathless account of Banks's activities which showed Banks's wide range of interests in the natural sciences and technology, and his increasing standing as a person knowledgeable in natural philosophy.
- 11 Ibid. p. 58.
- 12 There was international interest in observing Venus' transits across the sun as observations from various places on earth could help estimate the size and distance of the sun, thereby improving navigational charts with respect to latitude. Including the Tahiti observations made in Cook's first voyage observations were made, according to Wikipedia, from at least 16 locations.
- 13 Carter, p. 60.
- 14 Gilbert, L.A. Banks, Sir Joseph (1743-1820). *Australian Dictionary of Biography*. downloaded 4 November, 2011.

- 15 Carter, p. 218.
- 16 Ibid. p. 218.
- 17 Ibid. p. 80.
- 18 Cameron (1952), p. 66.
- 19 Ibid. p. 270.
- 20 Alan Frost, 'Bligh, William (1754-1817)' *Oxford Dictionary of National Biography*, Oxford University of Press, 2004, online edn, Jan 2008 [<http://www.oxforddnb.com/view/article/2650>, accessed 6 Feb 2012].
- 21 Carter, p. 274.
- 22 Ibid. p. 275.
- 23 Ibid. p. 277.
- 24 Ibid. p. 271.
- 25 Ibid, p. 246.
- 26 Cameron (1952), pp. 72-73.
- 27 Carter, p. 273.
- 28 Ibid. p. 273 and Cameron, p. 73.
- 29 Even into the 20th century the time between 'the concept and the creation' could take 50 years: David T. Bottomley (1965), *The Creative Role of Market Research in the Search for New Marketing Ideas*, Market Research Society of Australia (Victorian Division), Melbourne.
- 30 Carter, p. 227.
- 31 Ibid. p. 227.
- 32 Ibid. p. 227.
- 33 Ibid. p. 227.
- 34 Ibid. p. 228.
- 35 Ibid. p. 264.
- 36 Ibid. p. 428-429.
- 37 Cameron (1952), pp. 243-244.
- 38 Banks could have been aware of the important work of the French mathematician, Laplace, who ten years before, in 1778, had published 'the extremely important central limit theorem that showed that even if a distribution is not normally distributed, the means of repeated samples from the distribution would be very nearly normal'. From a review of a section by David Lane (2008) in *History of Normal Distribution*, <http://cnx.org/content/m11164/latest>, downloaded 6 April, 2008. For this theorem to apply it is necessary that sampling be conducted in such a way that each sample is representative of the unit or 'population' sampled (a bag of wheat, bale of wool, etc. and within each unit that samples be representative of the contents of that bag or bale.) Banks, with his farming background and scientific mind would have been familiar with the principles of sampling; if not of Laplace's mathematics to determine the precision of estimates derived from sampling.
- 39 Carter, p. 245.