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**THE EFFECT ON MAIL SURVEY RESPONSE RATES
OF
COVERING LETTERS AND QUESTIONNAIRE COVER DESIGN**

**A thesis presented in partial fulfilment of
the requirements for the degree of**

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Philip John Gendall

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ABSTRACT

High response rates are important in survey research because they reduce the potential for nonresponse bias. The objective of this research was to determine whether survey response rates could be increased by modifying the content, tone or appearance of covering letters, or by manipulating the design of questionnaire covers.

The theoretical basis of the research was social exchange theory, a general explanation of survey participation that asserts that an individual's actions are motivated by the return these actions are expected to bring from others, and that a particular action depends on the balance between rewards, costs and trust. The research also incorporated ideas from direct marketing and advertising research.

The research confirms that an altruistic cover letter appeal appears to be more effective than an egoistic appeal for university-sponsored surveys of the general public. The same conclusion seems likely to apply to any non-commercial survey sponsor. However, there was no evidence that simplicity, a friendly tone, or the presence of graphics increases the effectiveness of survey covering letters. Similarly, a personalised covering letter had no effect on response rate, response speed, or data quality. This result is contrary to the findings of a number of previous studies.

The suggestion that likeability, a predictor of advertising effectiveness, might predict the effectiveness of questionnaire cover design in a mail survey, was weakly supported. In five out of six studies of questionnaire covers involving graphic designs, the more 'likeable' covers produced an average increase in response rate of approximately 2%. Some evidence was also found that, in the absence of an accompanying questionnaire, a highly contrastive cover design is more effective than a barely contrastive design. However, the most effective strategy is to include a questionnaire with every wave of a mail survey.

Overall, it appears the effect of covering letters and questionnaire cover design on response rate will be marginal in a well-conducted mail survey. Nevertheless, these elements may reinforce other survey factors, and, in some circumstances, 'tip the balance' between response and nonresponse.

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1. INTRODUCTION

1.1 Background

Most variables in a mail survey that can be manipulated – the number and type of contacts, incentives, sponsorship, postage stamps or mechanical franking, the colour of the questionnaire and the envelope, the length of the questionnaire – have been extensively tested to determine their effect on response rates (see Section 1.5). The exceptions are the wording, tone and appearance of the covering letter and the design of the questionnaire cover. While some research has been done on these variables, they have received much less attention than other elements of mail surveys.

This is, perhaps, surprising since all mail surveys have a covering letter and many have a cover (and, if they do not have a cover it is because a conscious decision has been made to design the questionnaire without one). Thus, in all mail surveys decisions have to be made about the wording, tone and appearance of the covering letter, and, for many mail surveys, a decision has to be made about what, if anything, to put on the cover of the questionnaire. It seems logical to assume that the response rate achieved by a survey will be influenced by these decisions, and that a researcher may be able to increase the response rate for a survey by manipulating the elements of the covering letter or questionnaire cover or both.

The purpose of this research was to test this proposition; namely, to determine the effect on mail-survey response rates of covering letters and questionnaire cover design.

Response rates are important in survey research because low response rates increase the potential for nonresponse bias (this is discussed in more detail in Section 1.2). If, by modifying the content, tone or appearance of the covering letter or manipulating the design of the questionnaire cover the response rate for a mail survey can be increased, the potential for nonresponse bias will be reduced.

Though mail surveys are less common than face-to-face or telephone surveys, nevertheless, they constitute an important survey research mode in most countries where surveys are conducted. Furthermore, there is a societal trend towards self-administration of surveys. While the main development may be in electronic surveys, mail surveys will continue to be a prominent and viable alternative for survey research (Dillman, 2000, pp.7–8).

1.2 The Problem of Survey Nonresponse

Before discussing theories of survey participation it is relevant to consider why nonresponse is a problem in surveys and why researchers should want to reduce it.

Nonresponse is the failure to obtain complete measurements on all members of the survey sample (Groves, 1989, p. 133). In mail surveys it occurs when respondents refuse to answer their questionnaire ('active' refusers) or simply fail to return it ('passive' refusers). Mail surveys often also have some questionnaires that are returned undelivered (in New Zealand, returned 'Gone No Address'). For these cases, a decision has to be made whether they should be considered as nonresponses or ineligible sample members.

However, regardless of how the nonresponse rate is defined, researchers are concerned about nonresponse because it is a source of potential nonresponse error; that is, of biased survey estimates. Nonresponse error is a function of two components, the nonresponse rate and the difference between survey respondents and nonrespondents:

$$\text{Nonresponse Error} = \text{Nonresponse Rate} \times (\text{Respondent Value} - \text{Nonrespondent Value})$$

$$= \left(\frac{nr}{n} \right) (Y_r - Y_{nr})$$

Where: Y_r = statistic estimated from the r respondent cases

Y_{nr} = statistic estimated from the nr nonrespondent cases

n = total sample size

Thus, nonresponse error is a function of the proportion of the sample not responding to a survey and the difference on a particular sample statistic between respondents and nonrespondents. The larger the stratum of nonrespondents, the higher the nonresponse error, other things being equal. Similarly, the more distinctive nonrespondents are from respondents, the higher the nonresponse error. (This discussion of nonresponse error is based on Groves & Couper, 1998, and Groves, 1989.)

However, as the expression for nonresponse error reveals, nonresponse bias is not inevitable, even with a low response rate. If there is no difference between respondents and nonrespondents on a particular variable, there is no potential for nonresponse error. Nevertheless, it can also be shown (see Groves & Couper, 1998, pp. 5–7) that high nonresponse rates increase the likelihood of biased survey estimates, even with relatively small differences between respondents and nonrespondents on the variables concerned. In the absence of knowledge about the difference term, therefore, survey researchers strive to maximise the response rate for their surveys.

The expression for nonresponse error shown above assumes that all sources of nonresponse are equivalent. However, there are different kinds of nonresponse to surveys, each of which may be associated with the failure to measure different kinds of people. This is more easily comprehended in face-to-face or telephone surveys where nonrespondents who cannot be contacted may be different from those who refuse when they are contacted. For mail surveys, there may be differences between 'active' and 'passive' refusers, for example.

Thus a more general expression for nonresponse error is:

$$\text{Nonresponse error} = \left(\frac{nc}{n}\right)(Y_r - Y_{nc}) + \left(\frac{ni}{n}\right)(Y_r - Y_{ni}) + \left(\frac{rf}{n}\right)(Y_r - Y_{rf})$$

Where: Y_{nc} = statistic for the nc noncontacted sample cases

Y_{ni} = statistic for the ni 'active' refusers

Y_{rf} = statistic for the rf 'passive' refusers

n = total sample size

and nr = $nc + ni + rf$

This equation emphasises the fact that the composition of nonresponse may vary and that the different components may not affect response error in the same direction. For mail surveys it is not easy to explain why some refusers return their questionnaires while others simply fail to respond at all, nor to predict the differential effect, if any, on survey estimates of converting either group into responders¹. Nevertheless, considering only the overall response rate for a mail survey ignores the possibility of counteracting biases for different types of nonresponse².

Furthermore, nonresponse error is only one source of total survey error (the others are coverage error, measurement error and sampling error). A higher response rate will reduce both potential nonresponse error and actual sampling error for a mail survey, but this may

¹ Helgeson's (1994) phenomenological examination of receiving and responding to a mail survey is one of the few studies of survey response from a respondent's perspective, and provides some insight into the reasons why respondents may or may not respond to a particular survey. Helgeson concluded that the variables that influenced respondents' decision to respond to a survey included: helpfulness and courtesy; obligation and guilt; interest in the survey and the surveying process or the results; fun and entertainment; self-expression; the impact of others; the attitude of respondents when they receive a survey; the benefits to the respondent; and ease of response. However, this was a small study with limited generalisability.

² In fact it is possible to show that higher response rates can lead to *higher*, not lower nonresponse bias. This occurs when initial nonrespondents who are converted to respondents are very atypical of all initial respondents (see Groves, 1989, pp. 146 and 147 for an example of this). However, because researchers usually know little about the attributes of nonrespondents, a higher response rate is almost always assumed to be better than a lower one and, for mail surveys, efforts to increase response are typically directed at the whole sample.

be at the expense of measurement error if, for example, reluctant respondents are careless when completing their questionnaires. Consequently, it is important not to lose sight of data quality in the pursuit of data quantity.

1.3 Trends in Mail Survey Response Rates

While it is generally asserted and commonly believed that survey response rates are declining, the information available presents a more complex and less certain picture. A 1995 review of 56 times series around the world showed 22 declines in response rates, 16 with no change, 14 with variable trends (ups and downs), and four with rising response rates (Smith, 1995). To complicate matters, the times series studied are not representative of all surveys. They are based on studies with results in the public domain and contain few commercial polls and no market research. Similar research on response trends in official surveys (mainly labour force surveys) over time and in different countries has produced similar results. Though the overall trend in response rates is down, survey response differs between countries and between surveys (Hox & de Leeuw, 1994; de Heer, 1999; de Leeuw & de Heer, 2002).

Unlike face-to-face or telephone surveys, there are relatively few long-running mail surveys for which response rate trends can be observed. Nevertheless, Hox and de Leeuw (1994) report that mail survey response rates were generally stable between 1947 and 1992, though possibly slightly higher in the early 1990s than in the past.

However, if mail survey response rates are not declining, this may simply mean that more effort is being expended to maintain them. This is what Dillman (2000) concludes; namely, that it is still possible to achieve the mail survey response rates of more than 70% that he reported over 20 years ago, but this now requires more intensive procedures, including token financial incentives and five contacts. This is consistent with conclusions by Groves and Couper (1998) and de Herr (1999): greater effort is required to maintain the same levels of survey cooperation as previously seen.

A small piece of evidence on mail survey response rate trends comes from the annual International Social Survey Programme (ISSP) surveys conducted by mail in New Zealand. Since 1991 three topics have been replicated at 7-year intervals: Religion, Social Inequality, and the Environment. The response rates for these surveys are shown in Table 1.1.

Table 1.1 Response Rates for Replicated ISSP Surveys in New Zealand

Religion		Social Inequality		Environment	
1991	66%	1992	68%	1993	70%
1998	65%	1999	61%	2000	62%

These response rates suggest participation in ISSP surveys in New Zealand has declined since the programme began in 1991. However, the difference in response rates for the Religion module was only 1%, and the survey design for the 1999 and 2000 replications of Social Inequality and the Environment were not identical to the original survey. Thus it cannot be said with certainty that ISSP response rates for the same topics have declined over the last ten years.

Nevertheless, the social forces that are assumed to have been responsible for reducing respondents' willingness to participate in surveys have intensified over the last decade and it is doubtful if mail surveys would have been immune to these. Furthermore, it is much easier to find hypotheses explaining declining survey cooperation than to suggest why it might be increasing, or even remaining stable. The reasons for declining mail survey response rates seem self-evident: society is more urbanised and lifestyles have changed; people are busier and more mobile; some groups in society are more alienated; and norms of civic duty are decreasing. At the same time, concerns about privacy and confidentiality are increasing, as are the number of surveys being conducted. The inevitable conclusion is that mail survey response rates will decline (if they are not already declining) unless survey researchers can ameliorate the effects of these factors.

1.4 Explanations of Survey Participation

Various theories have been proposed to explain survey response behaviour in general and mail survey participation in particular. These theories include: cognitive dissonance (Hackler & Bourgette, 1973; Furse & Stewart, 1984); attribution and self-perception (Reingen & Kernan, 1977; Allan, Schewe & Wijk, 1980; Hanson, 1980; Tybout & Yalch, 1980); commitment or involvement (Albaum, 1987; Evangelista, Albaum & Poon, 1999); pseudoaltruism (Green, 1996); social exchange (Lynsky, 1975; Dillman, 1978, 2000; Goyder, 1987; Childers & Skinner, 1996;); and reactance (Biner, 1988).

In the 1960s and 1970s cognitive dissonance theory (originally developed by Festinger, 1957) received considerable attention from researchers. Cognitive dissonance is an 'unpleasant drive state' that people are motivated to reduce; a person's efforts to reduce dissonance increase with the amount of dissonance created (Furse & Stuart, 1984). This provides a plausible explanation for the effect of incentives in mail surveys. According to Festinger's theory, a small incentive may create a feeling of cognitive dissonance among respondents, a dissonance that could be resolved by returning the questionnaire. By contrast, large incentives and promised rewards are more likely to be evaluated as compensation for participating in the survey and thus would not induce feelings of cognitive dissonance in respondents.

Furse and Stuart (1984) attempted to develop the cognitive dissonance framework to encompass response induction techniques other than incentives and reminders. However, cognitive dissonance theory provides a much less convincing explanation of the effect of these other techniques (such as prenotification or personalisation), and interest in the theory as a unifying explanation of mail survey response has subsequently waned.

More recently, Cavusgil and Elvey-Kirk (1998) proposed a conceptual framework of survey response behaviour that combines general attitudes towards market research and study-specific motivators controllable by the researcher. Cavusgil and Elvey-Kirk's conceptual framework recognises that mail survey response is partly determined by general

attitudes towards surveys. However, at least in the short run, these attitudes are beyond the researcher's control. Thus the main focus of their framework is six manipulable variables that survey researchers can control: net individual benefit; societal outcome; commitment; novelty; convenience; and expertise.

While this is an interesting approach, the choice of the six study-specific motivators appears rather arbitrary, and the implication that relatively minor factors such as novelty and convenience are as important as net individual benefit, for example, is questionable (in fact, it could be argued that convenience could be subsumed under net individual benefit).

Thus, despite the many theories or explanations of mail survey response proposed over the last 30 years, the most widely cited and influential conceptual frameworks of survey participation remain Groves and Couper's (1988) heuristic decision-making framework, and social exchange theory, elaborated particularly by Dillman (1978, 2000) but also by Childers and Skinner (1996).

Heuristic decision-making

Surveys are social interactions and a respondent's decision to participate or not participate in a survey is influenced by the rules or conventions of social interaction. Groves and Couper (1998) argue that few people are strongly predisposed not to participate in surveys and that decisions about survey requests are usually governed by convenient heuristics. They quote the compliance principles identified by Cialdini (1984) that guide some heuristic decision-making on requests that appear to be activated in surveys. These include reciprocity, authority, consistency, scarcity, social validation, and liking (see Groves & Cooper, 1988 and also Groves, Cialdini & Couper, 1992).

Reciprocity. Potential respondents should be more willing to participate in a survey if compliance is seen as the repayment of a gift or favour. This reciprocity heuristic could be invoked by something as broad as a perceived sense of obligation to the survey sponsor or to society in general (sometimes called the 'norm of social responsibility'), or more

narrowly by specific features of the survey design such as incentives or the content of the covering letter³.

Authority. People are more likely to comply with a survey request if someone who is sanctioned by society to make such requests and to expect compliance makes it. This heuristic would help to explain why surveys sponsored by universities or government agencies, organisations with high legitimacy, have higher response rates than commercial market research companies (see Kanso, 2000). Conversely, for groups who feel alienated by authority or socially isolated, the authority heuristic may result in them being less cooperative.

Consistency. This heuristic suggests that people should be consistent in their behaviour. In surveys, it offers an explanation for the foot-in-the-door effect whereby compliance with a small initial effect leads to greater willingness to accede to a larger request (see Yu & Cooper, 1983).

Scarcity. Potential respondents should be more willing to participate in a survey if they perceive this as a rare opportunity to take part in an important or interesting activity. Survey covering letters commonly emphasise the fact that only a small sample of the potential population is being surveyed, in an attempt to invoke this heuristic. This principle may also help to explain declining survey response rates in most Western countries. As the number of surveys has increased, it is likely that respondents' perception of the scarcity value of survey participation has decreased.

Social validation. Using this heuristic, a respondent would be more willing to take part in a survey if they believed others like them were likely to do so. Again, survey covering letters frequently attempt to invoke social validation (see, for example, Houston & Nevin, 1977).

³ Groves, Cialdini and Couper (1992) argue that 'help-giving', the response to an explicit request for assistance, and reciprocation are separate and different concepts. Thus they propose that the 'norm of social responsibility' is a helping tendency rather than a compliance principle. However, implicit in the idea of a helping norm that motivates people to help others in need is the idea of social obligation and reciprocity.

Liking. People are more likely to comply with requests from others they like. This heuristic is probably more relevant to survey modes involving interviewers, but for mail surveys it suggests that participation may be more likely if potential respondents are favourably disposed towards (i.e., 'like') the questionnaire and other elements of the survey package.

These compliance heuristics are all consistent with the theoretical structure of social exchange, a theory that subsumes the features of cognitive dissonance, self-perception, and commitment, or involvement, perspectives, and is frequently put forward as a general explanation of survey participation.

Social exchange theory

Social exchange theory asserts that individuals' actions are motivated by the return these actions are expected to bring from others, and that a particular action depends on the balance between rewards, costs and trust. Rewards are what people expect to gain from a particular activity, costs are what they give up or spend to obtain the rewards, and trust is the expectation that, in the long run, the rewards of doing something will outweigh the costs (see Blau, 1964; Dillman, 1978, 2000; Green, 1996).

As far as surveys are concerned, the cost of survey participation would include the time lost for other activities, the loss of privacy or control over personal information, and the possibility of embarrassment. The benefits would include supplying information that might improve society, the opportunity to discuss a topic of personal interest, the satisfaction of helping the researcher, the novelty of the experience, and the pleasure of interaction with another person.

The likelihood of responding to the request to complete a self-completion survey increases when the respondent trusts that the expected rewards of responding will outweigh the expected costs. The implication for researchers is that they should manipulate the survey

features under their control to minimise respondents' costs and maximise their rewards and trust.

Green summarises the application of social exchange theory to survey research as follows:

The social environment creates a complex exchange structure governed by norms of equity, reciprocity, and obligation. The exchange in survey research is information provided by the respondent to the researcher as the researcher provides a respondent with the opportunity to personally and visibly promote the social good, to be recognized and included, to express an opinion that will be valued and counted, to learn about a topic, to reflect on and come to decisions about aspects of a topic, and to satisfy his or her curiosity. Further, the respondent receives explicit approval from the researcher (in the cover letter) and, if he or she returns the survey, avoids any guilt associated with violating social exchange.

(Green, 1996, p.180)

Linsky (1975) was one of the first researchers to suggest social exchange theory as a potential theoretical foundation for explaining mail survey behaviour. Subsequently, Dillman incorporated many of the principles of social exchange into his Total Design Method for mail surveys (Dillman, 1978), and later into his Tailored Design Method for mail and Internet surveys (Dillman, 2000).

Childers and Skinner (1996) also propose a unifying conceptual framework for mail survey behaviour based on social exchange theory. Their proposal differs from those of Linsky and Dillman through the introduction of the construct of 'commitment' and the idea of balanced exchange. While the role of commitment in Childers and Skinner's model is very vague, they construct a compelling case (based on equity theory) that survey cooperation does not require the rewards to outweigh the costs, only that they be equal as far as a respondent is concerned. Childers and Skinner argue that survey response (or nonresponse) is a rational decision based on the benefits received relative to the costs of participation,

and that cooperation is more likely to occur in the event of a 'balanced exchange' between researcher and respondent (Childers & Skinner, 1996, p. 189).

Social exchange theory can be used not only to explain survey participation but also to predict the effect of survey features under the control of the researcher. Thus, the effect of small, prepaid incentives, for example, can be explained and predicted on the basis that the incentives provoke a sense of reciprocal obligation on the part of the respondent that can easily be discharged by returning the completed questionnaire. By contrast, the relative lack of success of conditional incentives can be attributed to the fact that they do not evoke the same norm of reciprocation.

Similarly, persuasive covering letters and attractive questionnaires should increase survey cooperation because they not only evoke the reciprocation heuristic (either explicitly or by emphasising the effort and resources expended by the researcher) but also reward respondents by creating an impression of 'special attention' being paid to them. In addition, if the appearance of the covering letter and the questionnaire project an image of professionalism, this should increase respondents' trust in the sponsor, and hence their willingness to cooperate with the survey request.

Dillman's tailored design approach

In his approach to questionnaire design and survey implementation Dillman operationalises social exchange theory through three questions: How can rewards for responding be increased? How can the perceived costs of responding be reduced? And, how can trust be established so that the ultimate rewards of responding will outweigh (or at least match) the costs of responding? (Dillman, 2000, p. 14). Dillman raises these three questions as a framework on which to build his tailored design approach to the construction and implementation of mail (and other self-administered) surveys.

The two remaining elements of Dillman's Tailored Design Method are the communication of the exchange concepts through visual layout and design, and the 'tailoring' of each

survey to the specific nature of the survey sponsor, population and content. This emphasis on using knowledge of the specific circumstances that apply to a particular survey distinguishes Dillman's Tailored Design Method from his earlier 'one-size-fits-all' Total Design Method (see Dillman, 1978), and is the critical element of the tailored approach. Rather than assuming there is a common set of principles that applies to all self-completion surveys, Dillman's Tailored Design Method assumes that every survey may be different and that the relative importance of the different design elements may vary depending on the situation. In this respect, Dillman's approach has much in common with Groves, Singer and Corning's leverage-salience theory of survey participation (see Groves, Singer, & Corning, 2000).

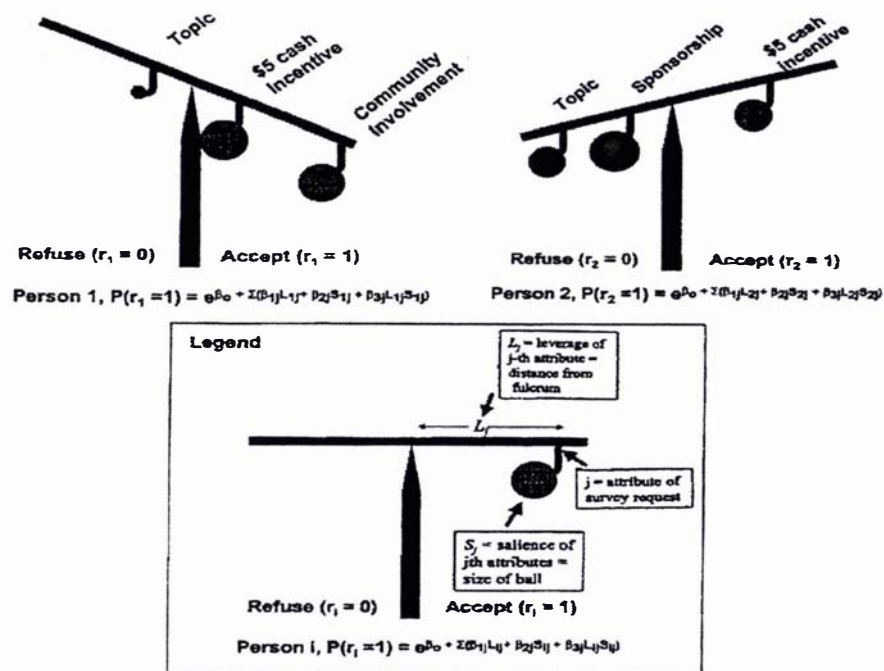
Leverage-salience theory

Groves et al. develop one of the central ideas from Groves and Couper's (1998) framework of survey participation in household interview surveys – the customising by expert interviewers of their appearance and language for different households and different potential respondents. This 'tailoring' by survey interviewers is the direct parallel of what Dillman proposes in his approach to self-administered survey design and, while Groves and his colleagues' leverage-salience theory of survey participation is described in terms of interviewer-administered surveys, conceptually it applies equally well to mail surveys.

The notion of tailoring suggests a mechanism by which individual householder differences and different survey design features interact to determine whether a person will respond to a particular survey. The model proposed by Groves and his colleagues can be pictured as a scale balanced on a fulcrum. The arms of the scale have multiple hooks on which to hang weights, each hook representing some attribute of the survey design, with the size of each weight representing the salience of the survey attribute concerned. The distance from fulcrum to each hook measures the importance a person assigns to the attribute in the decision to participate in the survey (Groves et al. call this distance the 'leverage' of the attribute). A visual representation of this model is shown in Figure 1.2, together with an

example of two people with different leverages and saliencies associated with the same survey attributes.

Figure 1.1 The Leverage-Salience Theory of Survey Participation



Source: Groves et al. (2000, p. 300).

Groves et al.'s theory proposes that, for each potential respondent, the decision to participate in a survey depends on the net effect of attributes with positive leverage compared with those with negative leverage, and the effect of any particular survey design feature is a function of how important it is to the potential respondent, whether its influence is positive or negative, and how salient it becomes when (in the case of a mail survey) the

survey request arrives in the mail. Thus, in Figure 1.2, Person 1 would agree to the survey request because the combination of two highly salient attributes with positive leverage (the survey's link with his or her involvement in the community and the cash incentive) 'outweighs' the negative impact of the survey topic, which is less important and much less salient than the other two attributes. By contrast, Person 2 is negatively predisposed to the topic and the survey sponsor, both of which are relatively salient. These negative effects outweigh the effect of the incentive, despite the fact that the incentive has high positive leverage for this person.

Groves et al.'s theory is appealing because it is consistent with what is known about respondents and their response to various survey design features. Because respondents have different backgrounds and experiences, they should vary in terms of the attributes relevant to their decision whether or not to participate in a survey. The theory allows for the possibility that some survey attributes may have positive 'leverage' for some respondents but negative 'leverage' for others, and may explain some of the contradictory results obtained from tests of various survey design features.

However, there are at least two aspects of the theory that are questionable. First, it is not clear why salience and leverage need to be considered separately. Another equally plausible proposal would be that increasing the salience of a survey attribute increases its leverage, and vice versa. Second, Groves et al. treat respondent characteristics (for example, community involvement) as though they were equivalent to survey attributes. While it is true that survey attributes interact with respondent characteristics to affect survey participation, researchers (or interviewers) cannot manipulate respondent characteristics; they can only take them into account when designing (i.e., tailoring) their survey for the particular respondent. Nevertheless, Groves et al.'s leverage-salience theory provides a useful framework for thinking about survey participation.

Summary

A number of explanations of mail survey participation have been proposed. Some are general frameworks that attempt to conceptualise the whole process, while others are more limited in their focus, concentrating on explaining a particular effect or part of the survey process. But the most widely acknowledged basis for mail survey participation is the social exchange theory, promoted by Dillman, first in his Total Design Method, and later in his Tailored Design Method.

However, the social exchange theory is not an entirely satisfactory explanation for mail survey participation. The cognitive dissonance theory seems at least as plausible an explanation for the effect of incentives and reminders as social exchange, and the leverage-salience theory helps to explain why some techniques are more or less effective in certain situations and why the ‘tailoring’ of survey design is important. For researchers, the implication is that the goal of a single, overarching theory of survey participation has not yet been achieved, and they may still need to draw on more than one conceptual framework for practical guidance.

1.5 Determinants of Mail Survey Response Rates

Research on the determinants of mail survey response rates is prolific, spanning more than 50 years, and characterised by many extensive literature reviews. This preoccupation with mail survey response rates probably reflects the fact that mail surveys are relatively cheap and uncomplicated, with several easily manipulable components, thus providing a convenient research vehicle for generations of academics with small research budgets.

Since Scott’s review of research on the factors affecting mail survey response rates was presented to the Royal Statistical Society in 1961, at least 30 literature reviews of mail survey response rates have been published. These literature reviews are classified in Table 1.2 according to their methodology: qualitative/narrative or quantitative/meta-analytical,

and whether they are general reviews or reviews of a specific feature of mail surveys, such as incentives (a classification based on Diamantopoulos & Schegelmilch (1996)).

Table 1.2 Classification of Literature Reviews on Determinants of Mail Survey Response Rates

Scope of Review	Type of Review	
	Qualitative	Quantitative
General	Scott (1961) Blumberg et al. (1974) Kanuk & Berenson (1975) Linsky (1975) Duncan (1979) Janssens & Pessemier (1980) Jobber (1986a) Jobber (1986b) Harvey (1987) Conant et al. (1990) Diamantopoulos & Schegelmilch (1996) Jobber & O'Reilly (1998) Kanso (2000)	Heberlein & Baumgartner (1978) Eichner & Habermehl (1981) Goyder (1982) Haglund (1989) Yu & Cooper (1983) Goyder (1985) Jobber & Saunders (1986) Fox et al. (1988) Bruvold & Comer (1988) Yammarino, et al. (1991) Roth & BeVier (1998) Edwards et al. (2002)
Specific	Jobber (1985) Worthen & Valcare (1985)	Armstrong (1975) Armstrong & Lusk (1987) Chiu & Brennan (1990) Schegelmilch & Diamantopoulos (1991) Church (1993)

Source: Based on Diamantopoulos and Schegelmilch (1996)

As Schegelmilch and Diamantopoulos (1991) point out, there are problems with a number of these literature reviews, particularly (but not exclusively) with some of the earlier narrative reviews. In some reviews, studies showing no increase in response rates are not included or, if they are, they are subsequently ignored; in others, information from the original studies is incorrectly abstracted, or undue emphasis is given to the statistical significance of results.

Thus, in evaluating the literature reviews on response rate determinants there is some justification in limiting consideration to reviews published in the last 20 years. These

reviews generally include the studies covered in earlier reviews, but are less prone to the sorts of problems identified by Schegelmilch and Diamantopoulos. Furthermore, they include most of the quantitative reviews conducted. These reviews have the advantage over qualitative reviews that they provide a numerical estimate of the average size of an effect across the studies involved.

A summary of the literature reviews on mail survey response rates conducted over the last 20 years is given in Table 1.3. The conclusion drawn from these reviews is that only five factors have been shown consistently to affect mail survey response rates by a substantial amount:

- incentives, particularly prepaid monetary incentives;
- pre-notification, or prior contact;
- reminders, or follow-up contacts;
- university, or official, sponsorship;
- topic salience, or respondents' interest in the topic.

The last two factors are generally given, or beyond the researcher's control in a particular survey, thus leaving only three controllable factors that can be confidently expected to raise the response rate of any mail survey. Other response-elicitation techniques have been shown to be effective in particular circumstances, or have produced mix results. This does not mean they are not effective, simply that their effectiveness cannot be guaranteed in the same way as it can be for the other factors.

This conclusion is supported by five further studies that replicated Heberlein and Baumgartner's 1978 procedure for estimating response rates to mail surveys (see Eichner & Habermehl, 1981; Goyder, 1982, 1985 Jobber & Saunders, 1986; and Bruvold & Comer, 1988). Though the samples of experiments analysed differed and slightly different models were developed in each case, the results of these studies were similar, and generally consistent with Heberlein and Baumgartner's findings.

Table 1.3 Summary of Reviews of Determinants of Mail Survey Response Rates

	Edwards et al. 2002 ¹	Kanso 2000	Jobber & O'Reilly 1998 ²	Roth & BeVier 1998 ²	Diamantopoulos & Schegelmilch 1996	Church 1993 ³	Schegelmilch & Diamantopoulos 1991 ³	Yammarino et al. 1991	Chiu & Brennan 1990 ³	Conant et al. 1990
Number of studies	251	55	nr	nr	23	38	27	115	15	147
Number of effects	292	277	nr	nr	nr	74	73	184	21	165
Publication years	1940-01	1962-88	1964-96	1990-94	1961-91	1931-88	1961-89	1940-88	1960-88	1980-88
Type of study	M	Q	Q	M	Q	M	M	M	M	Q
<i>Survey Features:</i>										
Monetary incentives	X	X	X		X	X		X		X
Non-monetary incentives	X				X	X				
Follow-ups/reminders	X	X	X	X	X			X	X	X
Sponsorship	X	X	X		X					
Pre-notification	X	X	X ⁴	X	X		X ⁶	X	X	
Personalisation	X									
Cover letter appeals			X ⁵					X		
Outgoing postage			X							
Return postage	X	X	X		X			X		
Questionnaire length	X							X		
Questionnaire colour										
Recorded delivery	X									
Identification numbers				X						
Return envelope								X		
Foot-in-the-door methods										
Topic salience	X			X						

Note: 1. Odds ratio increased by 1.15 or more.
2. Concerned with industrial samples.
3. Review confined to specific survey features.
4. Telephone prenotification effective.

5. Anonymity effective for sensitive information.
6. Authors concluded that prenotification does not always work and may be counterproductive for industrial populations (p. 250).
M = Meta-analytical Q = Qualitative nr = Not reported

Table 1.3 (cont.) Summary of Reviews of Determinants of Mail Survey Response Rates

	Haglund 1989	Fox et al. 1988	Armstrong & Lusk 1987 ¹	Harvey 1987	Jobber 1986a ²	Jobber 1986b ²	Worthen & Valcare 1985 ¹	Jobber 1985 ¹	Yu & Cooper 1983
Number of studies	315	82	34	nr	39	31	26	nr	93
Number of effects	nr	214	34	nr	57	58	26	nr	497
Publication years	1971-87	1961-86	1951-86	1934-84	1951-85	1951-84	1941-83	1939-82	1965-81
Type of study	M	M	M	Q	Q	Q	Q ⁶	Q	M
<i>Survey Features:</i>									
Monetary incentives	X	X		X	X	X			X
Non-monetary incentives					X	X			X
Follow-ups/reminders		X		X	X	X			X
Sponsorship		X							
Pre-notification		X		X	X ⁵				X
Personalisation					X				X
Cover letter appeals	X ³				X		X		
Outgoing postage									
Return postage			X		X	X			
Questionnaire length	X ⁴								
Questionnaire colour		X							
Questionnaire appearance								X	
Recorded delivery									
Identification numbers								X	
Return envelope				X					
Foot-in-the-door methods									X
Topic salience									

Note: 1. Review confined to specific survey features.
 2. Concerned with industrial samples.
 3. 'Quality' of covering letter.
 4. Positive relationship between length and response rate.

5. Telephone pre-notification effective.
 6. Sign test on the direction of effects used.
 M = Meta-analytical Q = Qualitative nr = Not reported

In all five studies, topic saliency and total number of contacts were significant predictors of mail survey response rates. In Eichner and Habermehl's analysis of German and Austrian surveys, and Jobber and Saunders' analysis of industrial surveys, questionnaire length and an incentive with the first contact were also significant independent variables (positive coefficients for all variables except questionnaire length). Goyder's 1985 analysis and Bruvold and Comer's (1988) study, both involving mainly American surveys, showed sponsorship by a government organization to be significant.

A potential confounding factor in most of the published studies on response rates is the issue of interaction. Generally it is assumed that mail survey response facilitators act independently, and relatively few studies have attempted to test for interaction effects. Among those that have, the evidence is contradictory (see Wiseman, 1973; Eisinger, Janicki, Stevenson, & Thompson, 1974; Peterson, 1975; Roscoe, Lang, & Sheth, 1975; Houston & Nevin, 1977; Goyder, 1985; Martin, Duncan, Powers, & Sawyer, 1989; Bruvold & Comer, 1990; James & Bolstein, 1990).

Bruvold and Comer (1990) used a meta-analytical approach to conduct the most extensive analysis of interaction effects among survey features. Their analysis showed significant interaction effects among prior contact, follow-up contact, monetary incentives, personalisation and type of sponsor. However, the additional explanatory power of their all-interaction model was small (an increase in R^2 of only 0.04 over the non-interaction model). Thus, although interaction effects may occur among mail survey response facilitators, it appears that, when they do, they are likely to be relatively minor compared with the independent main effects.

Some analytical issues

Though the literature reviews summarised in Table 1.3 are confined to those published in the last 20 years, the reviews themselves include studies conducted over the last 60 years in

some cases. The implicit assumption is that nothing changes; in other words, an effect identified in 1960 still applies 40 years later. This seems rather unlikely⁴.

As discussed in Chapter 3, 40 years ago receiving a personalised cover letter with a mail survey was an indication of special attention on the part of the researcher. Today, by contrast, 'personalised' letters are commonplace and recipients are well aware that they are computer-generated. In some cases this attempt at intimacy may actually emphasise the absence of any personal relationship between the sender and the receiver. Consequently, while previous research provides a guide to what is effective in mail surveys, there is a sound argument for placing more weight on recent studies on the grounds they are likely to be more relevant to current circumstances.

Support for this view is provided by Kanso, who concluded that: "Compared to studies conducted 25 years ago, the analysis suggests that the effect of outgoing postage seems to be decreasing while the effect of university sponsorship appears to be increasing". (Kanso, 2000, p. 12). Similarly, Yammarino et al. (1991) concluded that preliminary notification had become more effective over time, but that the effect of return postage had declined (because respondents had come to expect return postage in a survey).

Another problem with the literature reviews summarised in Table 1.3 is that they are based on different sets of original studies, thus there is inevitably some variation in the conclusions arrived at by the different authors. Furthermore, the degree of heterogeneity among the results reported for some survey features raises doubts about the appropriateness of combining these results to produce a single estimate of effect. More importantly, only a few of the authors recognise the 'file drawer' problem – the fact that published studies are likely to be those that show positive results, whereas unpublished studies are likely to be those with null results.

⁴ Harvey is one of the few authors to raise this problem. When discussing the limitations of his literature review he commented on the 'enormous changes in communications and education' that had occurred in the 50 years over which the research he reviewed was spread (Harvey, 1987, p. 347).

This issue was raised by Yammarino et al. (1991), though they simply suggested researchers might include published and unpublished work in future meta-analyses. In fact, the only analysis in which the file-drawer problem is explicitly recognised and addressed is Schegelmilch and Diamantopoulos' (1991) review of prenotification⁵. Their file-drawer tests supported the conclusion that, overall, prenotification had a positive, significant effect on response rates, but the small number of studies on personal prenotification made inferences about the effectiveness of this method much less robust.

The failure of authors to consider the file-drawer problem, particularly where the number of studies on a particular survey element is relatively small, means conclusions about the effectiveness of these elements should be more tentative than most literature reviews suggest.

Thus, despite the large number of response rate studies conducted over the last 50 years and the numerous published reviews of these studies, the efficacy of most of the controllable survey response facilitators, apart from incentives, pre-notification and reminders, remains undetermined. In particular, the effects of manipulating features of the covering letter and questionnaire cover – both required elements of all mail surveys – have not been extensively studied or reliably quantified. Furthermore, social exchange theory predicts that both covering letters and questionnaire covers are potentially important determinants of a respondent's decision to participate in a survey. They are, therefore, logical survey features to examine for their effectiveness in stimulating mail survey response.

1.6 Outline of Thesis

The objective of the research described in this thesis was to examine the effect on mail survey response rates of covering letters and questionnaire cover design. This research is presented in six chapters.

⁵ Edwards and his colleagues recognise the file-drawer problem but claim that their search strategy retrieved nearly all eligible trials and that they 'missed very few relevant records during screening' (Edwards et al., 2001, p.4).

The introductory chapter describes the problem of survey nonresponse, and reviews trends in mail survey response rates. It then describes several theories of survey participation and summarises what is known about the factors that influence mail survey response. This review reveals that the wording, tone and appearance of covering letters and the design of questionnaire covers have received much less attention than other survey elements, despite the fact that they are an integral part of most mail surveys, and that they are potentially important response facilitators.

Chapters 2 and 3 describe the results of two experiments designed to test the effect on the response to a mail survey of variations in the covering letter. The first experiment examines the effect of type of appeal, level of complexity and tone, while the second examines the effect of personalisation.

Chapters 4 and 5 are concerned with a series of experiments designed to test the effect of complexity, contrast and likeability in questionnaire cover design on survey response rate. The experiments on complexity and contrast replicate and extend previous work in this area, but the experiments involving likeability introduce to the study of questionnaire cover design a concept that originated in advertising copy testing.

The final chapter summarises the results of research conducted, discusses its limitations, and make suggestions for further work in this area.

Several parts of this thesis incorporate research published in journal articles and conference papers, including Gendall (1996, 1999, 2001, 2002) and Gendall, Hoek, and Esslemont (1995), but the material has been re-presented (in some cases reinterpreted) and integrated with additional, unpublished material.

2. THE EFFECT OF COVERING LETTER APPEAL, COMPLEXITY AND TONE

2.1 Introduction

As the review in the previous chapter reveals, most variables in a mail survey package that can easily be manipulated have been tested to determine their effect on response rates. However, among all the studies reported, relatively few have examined the consequences of varying the wording or appearance of the covering letter. For example, only seven of the 147 articles reviewed by Conant, Smart, and Walker (1990) used different cover letter appeals, and the effect of cover letter appeals is not considered at all by Kanso (2000) in his review of 'key' factors affecting mail survey response rates.

This is surprising, since direct marketing professionals, whose business it is to generate action through mail packages, argue that the letter is the most important of all elements used in direct mail (Beard, Williams, and Kelly, 1990). For many years, direct marketers have used knowledge of the 'reading curve', which consumers' eyes typically follow when they read a letter, to format their communications¹. Similarly, evidence on the effectiveness of various components of letters, including form of salutation, postscripts, underlining and marginal notes has helped structure the style and tone of direct marketers' letters (see Bodian, 1995; Chewning, 2002, for details). However, it seems that very little of this knowledge has been adopted or applied by mail survey researchers.

In this chapter the results of the study that applied direct marketing techniques to the writing and presentation of a covering letter for a mail survey of the general public are reported. The specific elements tested were the appeal (altruistic versus egoistic), complexity (measured by readability), tone, and the presence of graphics. The rationale for testing different types of appeal is well documented in the literature. The justification for the other treatment variables draws heavily on elements of social exchange theory and is explained in Section 2.3.

¹ "As a rule, the common pattern of eye flow for a personalised sales letter is from the recipient's name and address to salutation to end of letter – first to the signature and then to the postscript if any." (Bodian, 1995, p. 28).

The effect of covering letters on response rates

Elements of mail-survey covering letters that have been tested for their effect on response rates include personalisation, use of a postscript, notification of cut-off date, statement of anonymity or confidentiality, type of appeal, complexity, length and tone. The effect of personalisation on response rates appears to be variable and often contradictory. Whereas Yu and Cooper (1983) and Dillman (2000) concluded that personalisation enhances response, Worthen and Valcare (1985) concluded that the size of this effect in 26 studies was small, and found no significant effect in a follow-up experiment.

A comprehensive review of personalisation studies reported in Chapter 3 concludes that, on balance, personalisation appears to increase mail survey response rates, but this effect is by no means guaranteed. This ambiguity is summarised by Harvey (1987), who concluded that personalising contact may increase, decrease, or have no effect on response rates, and that its advantages are heavily dependent on the target population and the aims of the questionnaire. (A test of the effect of covering letter personalisation is discussed in Chapter 3.)

The effects on response rates of a handwritten postscript asking for cooperation and notification of a cut-off date have also been mixed. A handwritten postscript requesting cooperation appears to reduce the response rate, while notification of a cut-off date may increase it. However, in both cases the effect is variable and non-significant (Fox et al., 1988). Similarly, the assurance of anonymity has no apparent impact on response rates except in situations where anonymity is obviously desirable (Singer, Von Thurn, & Miller, 1995).

The inevitable conclusion is that, with the possible exception of personalisation, these 'trappings' of the covering letter (as Scott (1961) called them) are unimportant. This leaves the question of the wording and appearance of the covering letter.

2.2 Wording and Appearance of Covering Letters

Studies investigating the style, tone and format of covering letters began over four decades ago when Scott (1961) explored whether personal or impersonal letters significantly affected response rates. His finding, that they did not, was complicated by his high response rates (90% and 91%), which made it virtually impossible to identify significant differences. Nor was his work corroborated by Francel (1966), who attributed high response rates in 14 mail surveys (77% averaged across ten consumer surveys and 57% across four industrial surveys) to three factors: the use of a follow up mailing, the simplicity of the questionnaire and, most importantly, a 'personal, friendly' covering letter.

Unfortunately Francel did not use a control group, making his views on the causal factors underlying his success difficult to substantiate. Moreover, his sample, coupon premium redeemers, could be expected to produce higher response rates than average, complicating further the generalisability of his claims.

More specific studies began emphasising particular elements of covering letters, and adopted one or more variations on two basic approaches – egoistic or altruistic. Egoistic appeals emphasise the importance of the survey to recipients, stressing the value of their opinions. Altruistic appeals either emphasise the opportunity to help those conducting the study (help-the-sponsor) or stress the benefit of the research to the general population of which the recipient is a member (social utility). However, although some researchers (see Dillman, Carpenter, Christenson, & Brooks, 1974) have attributed their high response rates to the combination of egoistic and altruistic appeals they used, studies designed to isolate the particular effects of these appeals have been less conclusive.

While Linsky (1965) found no difference in response to two altruistic appeals (help-the-sponsor versus social utility), he suggested that an essentially egoistic appeal generated a significantly higher response rate. However, less than ten years later, Martin (cited in Linsky, 1975) reported quite different results. His research found that response was greater from those not subjected to an egoistic appeal than from those who were. Although Martin

suggested the difference between his and Linsky's work was due to the differing motivations of the populations surveyed, it is difficult to verify this explanation.

Later work exploring the response to differing sponsors as well as appeals also highlighted varying patterns of behaviour across different populations. Champion and Sear (1969) found that an egoistic appeal generated a significantly higher return rate than a help-the-sponsor appeal in a survey of the general public, and this effect was particularly marked among lower socioeconomic respondents. By contrast, in a survey of presidents of *Fortune* 500 companies, Kerin and Harvey (1976) found that an altruistic appeal generated a better response than an egoistic appeal.

Houston and Nevin's (1977) work did little to clarify this ambiguity. They not only tested different appeals, but also examined whether the survey sponsor affected response rates. They found no significant differences between egoistic, help-the-sponsor and social utility appeals separately or combined in their effect on response rate (though the altruistic appeals were more effective in terms of response speed and completeness). However, university sponsorship generated a higher response rate when combined with a social utility appeal, whereas commercial sponsorship was more effective with an egoistic appeal.

In a subsequent study, Jones and Linda (1978) drew similar conclusions about the interaction between sponsor and appeal, but different conclusions about the overall effectiveness of different appeals. Their 'user', 'science' and 'resort park' appeals corresponded closely to social utility, egoistic, and help-the-sponsor appeals, respectively.² The help-the-sponsor appeal was least effective and also yielded the lowest response quality. The response rate was highest for university sponsorship, followed by government agency and private firm. There was no significant interaction between sponsor and appeal for the government agency, but for the private firm the help-the-sponsor appeal was less

² Jones and Linda describe their 'science' appeal as altruistic, but I believe it is better described as 'egoistic', because of the key phrase 'To date, there has not been a scientific examination of how group leaders such as yourself reach decisions which affect their organisations'. Similarly, Jones and Linda's 'user' appeal seems best described as a social utility appeal on the basis of the key phrase, 'Our clients are interested in improving the facilities and services they offer to people who plan and attend group meetings, conferences, and conventions'.

effective than the other two, while for the university the social utility appeal was most effective.

Nor did a clear pattern emerge after Childers, Pride, and Ferrell's (1980) study, which incorporated egoistic, help-the-sponsor and social utility appeals as postscripts in surveys of academics and business practitioners. The business practitioners responded best to a help-the-sponsor appeal (though the effect was not significant), while the academics responded best to the control condition (in other words, the appeals actually depressed response). Childers et al. (1980) found no relationship between type of appeal and response completeness or response bias.

Similarly, Bellizzi and Hite (1985) and Bachmann (1987) produced conflicting results in two studies that investigated the effects of different appeals used in marketing research projects conducted by American university students. While Bellizzi and Hite concluded that a help-the-sponsor appeal produced a better response among professional salespeople than either an egoistic or social utility appeal, Bachmann's study showed the highest response to a social utility appeal in a survey of the general public. (Bellizzi and Hite described their help-the-sponsor appeal as a 'financial appeal' because it drew attention to the limited budget available to the students.) In Bachmann's study the social utility appeal was also most successful when the sponsor was a commercial firm rather than a university. However, an explanation for this could be the topic of the survey, the performance of a government department. In this case, the social utility appeal is as plausible when the survey sponsor is a commercial firm as when it is a university, so the efficacy of this appeal in these circumstances is not surprising.

One explanation offered for the different results in Bellizzi and Hite and Bachmann's studies is the difference in the populations surveyed and the possibility of an interaction between socio-economic level and appeal (as reported by Champion & Sear, 1969). However, this explanation is confounded by the results of a later study by Tyagi (1989), which also used a population of professional salespeople (in this case, insurance salespeople) to test the effect of different cover letter appeals in a university-sponsored

survey. In Tyagi's study an egoistic appeal produced a 20% higher response than a social utility appeal. Tyagi's egoistic appeal was also most effective in inducing response completeness, though none of the appeals tested had a significant influence on response speed.

By the late 1980s it had become apparent there was an interaction between survey sponsor and cover-letter appeal. An altruistic appeal invariably produced a better response than an egoistic appeal for university-sponsored surveys, whereas, for a survey sponsored by a commercial firm, an egoistic appeal sometimes produced better results. Tyagi's study confirmed these conclusions but also suggested an interaction between an egoistic appeal and anonymity and the promise of survey results feedback. However, to receive feedback on Tyagi's survey, respondents had to write their name on the questionnaire, even in the 'anonymity-guaranteed' treatments. It is hard to see how anonymity could be guaranteed in these circumstances.

The issue of interaction effects was subsequently pursued by Schneider and Johnson (1995). They used a survey of American logistics and transportation managers' opinions of a piece of trucking legislation to test the individual and combined effects of monetary incentives, type of appeal and survey sponsor. In Schneider and Johnson's study, their help-the-sponsor appeal was most effective under university sponsorship, and their social utility appeal least effective, whereas this result was reversed under commercial sponsorship. In both cases, response to the egoistic appeal was between the two altruistic appeals. Type of appeal had no effect on response completeness, measured either in terms of item omission or length of answer to open-ended questions.

However, Schneider and Johnson also found a significant interaction between type of appeal and monetary incentive. Where there was no monetary incentive, the help-the-sponsor appeal was most effective under both university and commercial sponsorship. By contrast, in the presence of a monetary incentive, the help-the-sponsor appeal was most effective for the university-sponsored survey, while the social utility appeal was most effective for the commercially sponsored survey. More importantly, the monetary

incentive significantly *decreased* the effectiveness of the help-the-sponsor appeal in the commercially sponsored survey (by 14 percentage points), suggesting the incentive and appeal were incompatible.

Thus, Schneider and Johnson confirmed the conclusion that the effectiveness of cover letter appeals depends on the survey sponsor. However, they also demonstrated that monetary incentives, otherwise considered to be universally effective in enhancing mail-survey response rates, may actually depress responses when combined with certain cover letter appeals, under certain sponsor conditions, for certain populations.

The importance of considering the survey population as well as sponsor and appeal was emphasized in a later study by Cavusgil and Elvey-Kirk (1998), who used a monetary incentive in a test of four covering letter appeals and university versus commercial sponsorship. Cavusgil and Elvey-Kirk's research was designed as a replication of Houston and Nevin's 1977 study, but used a national rather than a local sample of the general public and had a different topic. Monetary incentive was not a manipulated variable in Cavusgil and Elvey-Kirk's study, all respondents received the incentive, but there was no difference in the response to the help-the-sponsor appeal for either the university or the commercially sponsored survey. This was contrary to the result reported by Schneider and Johnson, who found a monetary incentive depressed response when a help-the-sponsor appeal was used in a commercially sponsored survey (but Schneider and Johnson's population was business executives rather than the general public).

Cavusgil and Elvey-Kirk generally replicated the results of Houston and Nevin's earlier research. Their social utility appeal elicited the highest response under university sponsorship, whereas their egoistic appeal was most effective under commercial sponsorship, and their altruistic appeals produced a faster response than their egoistic or combined appeals under university sponsorship. However, unlike Houston and Nevin's study, the appeal with the fastest response speed for commercial sponsorship was the combined appeal, and Cavusgil and Elvey-Kirk found no difference in response

completeness across appeals. Nevertheless, though these two studies were conducted 20 years apart and on different populations, their results were very similar.

Two other studies of the effect of covering letter appeals on mail survey response rates have been conducted, one by Dillman, Singer, Clark, and Treat (1996), the other by Biner (1988). Each of these studies has particular characteristics that warrant separate consideration.

In Dillman et al.'s (1996) study, a 'mandatory' appeal and a 'benefits' appeal were used in a pretest of the US Census. The mandatory appeal emphasised that the law requires a response to the Census, the benefits appeal emphasised the importance of the Census and of respondents' participation in it (i.e., a social utility appeal). The appeals were displayed on the outside of the survey envelope and on the front cover of what was described as a motivational insert. The experiment was carried out on a large sample of American households.

Both appeals improved completion rates, the benefits appeal by 1% to 2%, and the mandatory appeal by 10% to 11%. However, only the mandatory appeal produced a significant increase in response (either statistically or practically). Because only government surveys such as the Census are able to invoke the force of the law to enhance compliance, this result is of little relevance for most mail surveys. Nevertheless, it provides some interesting insights into the motivational factors affecting mail survey response.

The study reported by Biner (1988) is distinctive in that, unlike all the other studies reviewed, which had elements of social exchange as their theoretical base, it applies reactance theory to the question of cover letter appeals. In a university-sponsored survey of the general public, half of the sample received covering letters emphasising the importance of the research, and the immediacy with which response should be made (the 'reactance' condition), while the other half received covering letters emphasising that responding was a matter of personal choice (the 'no-reactance' condition).

Biner hypothesised that the manipulation stressing personal choice would yield a higher response rate because the alternative, reactance-arousal appeal, would threaten subjects' freedom not to return the questionnaire and hence make them less likely to respond. The results of the survey supported Biner's hypothesis; the response rate for the no-reactance condition was significantly higher than for the reactance condition (59% vs 44%).

However, Biner also tested the effect of a monetary incentive in his study in a 2 x 2 factorial design. As in previous studies, the monetary incentive in Biner's survey had a significant effect on response (68% vs 34%), but also produced what Biner describes as an 'unexpected' interaction between cover letter appeal and incentive. Specifically, the no-reactance appeal increased response dramatically in the presence of the incentive, but only marginally in its absence.

This latter result was contrary to the outcome predicted by reactance theory. An incentive potentially represents a coercive (i.e., freedom-threatening) act on the part of the researcher to elicit respondents' cooperation. In such a case, subjects should experience reactance and exercise their freedom not to respond. In other words, the very theory that Biner draws on to predict the effectiveness of cover letter appeals is capable of predicting that monetary incentives should *reduce* response rates.

Biner offers several explanations for this inconvenient result, but does not seem to consider the possibility that the underlying theory of reactance may be at fault. A simpler explanation for Biner's results is that the appeals tested were essentially weak egoistic (reactance) and help-the-sponsor (no-reactance) appeals³. Taking this perspective, the predicted outcome of Biner's study (a university-sponsored survey of the general public's

³ Biner's 'reactance' appeal read as follows:

Because this survey is extremely important, you must fill out the enclosed questionnaire. It is absolutely essential. There is a stamped addressed envelope enclosed so you can mail it back to us immediately.

Biner's 'no-reactance' appeal read as follows:

Although this survey is important to us, we know that you are pretty busy. However, we would appreciate your taking a little time and filling out the questionnaire but, of course, it's your choice. There is a stamped addressed envelope enclosed for your convenience and so you can mail the questionnaire back as soon as possible.

views on community needs) would be a higher response to the help-the-sponsor appeal in both the incentive and no incentive condition, with a positive interaction between incentive and appeal. Since this is what Biner observed, it can be argued that the results of his study are consistent with those of earlier studies, which concluded that an altruistic appeal is more effective in university-sponsored surveys of the general public.

The literature on the effect of covering letter appeals on mail survey response rates is summarised in Table 2.1.

Overall, the effect of covering letter content on mail-survey response rates appears to be mixed, and dependent on some interaction between the type of appeal, the sponsor of the survey and the population surveyed (and possibly the topic of the survey as well). Intuitively, however, a well-written covering letter, with an appropriate appeal should produce a better response than a badly written or poorly targeted one, and at no extra cost.

To test this hypothesis, a study involving elements of cover letter appeals, complexity, tone, and graphic design was conducted. The study used a 2 x 4 factorial design, with altruistic and egoistic appeals embedded in cover letters incorporating different levels of readability, tone and graphics. The rationale for the specific experimental treatments tested is outlined in Section 2.3. In addition, a letter designed by a direct marketing consultant was also tested to see if the knowledge and experience of a professional letter writer would translate into a more effective survey covering letter.

Table 2.1 The Effect of Covering Letter Appeals on Mail Survey Response Rates: A Summary of the Literature

Study	Sponsor	Topic	Population	Most successful
Linsky (1965) ¹	Government agency	Unknown	State nurses association	Egoistic
Martin (reported in Linsky 1975) ¹	Government agency	Unknown	High school graduates	No appeal ³
Champion & Sear (1969)	University ²	NASA-sponsored programmes	General public	Egoistic
Kerin & Harvey (1976)	University	Product recall practices	<i>Fortune 500</i> presidents	Help-the-sponsor
Houston & Nevin (1977)	University Commercial firm	Shopping centre patronage and motives	General public	Social utility Egoistic
Jones & Linda (1978)	University Government agency Private firm	Resort-park facilities and services	Convention and meeting planners	Social utility No difference Egoistic or social utility
Childers et al. (1980)	University Commercial firm	Attributes of marketing texts	Academics Business practitioners	No appeal ⁴ Help-the-sponsor
Bellizzi & Hite (1985)	University ⁵ Commercial firm	Importance of sales techniques	Professional salespeople	Help-the-sponsor Not reported
Bachmann (1987)	University ⁵ Commercial firm	Performance of a government dept	General public	Social utility Social utility
Biner (1989)	University	Community needs	General public	Help-the-sponsor ⁶
Tyagi (1989)	University	Job attitudes	Insurance salespeople	Egoistic
Schneider & Johnson (1995)	University Commercial firm	Trucking deregulation	Business professionals	Help-the-sponsor Social utility
Dillman et al. (1996)	US government	US Census	General public	Mandatory
Cavusgil & Elvey-Kirk (1998)	University Commercial firm	Car maintenance and repair	Motor vehicle Owners	Social utility Egoistic

Note: 1. In both Linsky and Martin's studies, the sponsor is not identified, but it is possible to deduce that the 'sponsor' organisations were a state department of health and a high school, respectively.
2. Sponsor not identified, but presumably a university.
3. In Martin's study the absence of an egoistic, 'place and importance', appeal was most successful.
4. All the treatment appeals were less successful than a control group without a postscripted appeal.
5. Within the university the 'sponsor' was identified as either a student research group, an academic department or, in Bellizzi and Hite's study, an academic research unit.
6. Biner described this appeal as a 'no reactance' appeal.

2.3 Method: Letter Appeals Experiment

The vehicle for the research reported here was the 1993 International Social Survey Programme (ISSP) survey on attitudes to the environment. The ISSP is a group of more than 35 countries that conducts an annual survey of economic and social policy issues, using the same questionnaire in each country. In New Zealand, the ISSP surveys are conducted by mail.

Nine versions of the initial covering letter were produced. Eight letters were based on two different appeals, an altruistic appeal and an egoistic appeal. Within each appeal were four versions of the covering letter, differing in terms of complexity, tone, and the presence or absence of graphics. The ninth letter was written by a direct marketing consultant on the basis of a brief provided. This design is represented in Figure 2.1. The letters themselves are reproduced in Appendix A.

Figure 2.1 Experimental Design for Letter Appeals Experiment

Altruistic appeal	Egoistic appeal
Complex	Complex
Simple	Simple
Simple and friendly	Simple and friendly
Simple and friendly with graphics	Simple and friendly with graphics
Direct marketer's letter	

Type of appeal

The altruistic appeal used combined elements of help-the-sponsor and social utility appeals. The appeal described the ISSP in terms of an opportunity, with the respondent's cooperation, to 'increase international understanding'. Respondents were explicitly asked for their 'help in this international programme' and thanked for their assistance. Like all altruistic appeals, the basis of this appeal is the concept of help giving; the notion that a helping norm (sometimes called the 'norm of social responsibility') exists in most cultures, and motivates individuals to help others who are in need (see Groves, & Couper, 1998).

The theme of the egoistic appeal was that the survey provided respondents with an opportunity to express their opinions about the environment and to have their voices heard. Respondents were told that this was a chance for them to 'make their views on the environment known to policy makers', and urged to 'make the most of this opportunity to make your opinion count'. This appeal is based on the concept of reciprocation (see Groves & Couper, 1998); in return for their participation in the survey, respondents would have their opinions heard.

Complexity

Questionnaire designers and survey researchers are often cautioned to remember they are better educated than most of their respondents, particularly when designing surveys of the general public. On a practical level this caution is translated into the advice not to overestimate the reading ability of respondents and to write in simple straightforward language (see Labaw, 1980). The implicit hypothesis is that a simple, readable covering letter should be more effective than a complex, less readable one.

In this study complexity was measured in terms of readability. Two measures were used: the Flesch Reading Ease score and Gunning's Fog Index⁴. The Flesch Reading Ease score combines average sentence length and number of syllables per 100 words to produce a score between 0 and 100. The *lower* the score, the more difficult the writing is to read. The Fog Index combines the average number of words per sentence and the number of words of three syllables or more to give a measure of the approximate grade level a reader must achieve to understand a document.

For the complex letters, the Flesch Scores were 53 and 57, and the Fog Index for both was 15. This indicates the complex letters were 'fairly difficult' in terms of readability. By contrast, the simple versions of the letters had Flesch scores between 70 and 73, and Fog Indexes of 10. These statistics indicate the simple letters were 'fairly easy' to read. Details

⁴ The Flesch Reading Ease score is given by the formula:
 $206.835 - 1.015 (\text{average sentence length}) - .846 (\text{number of syllables per 100 words}).$
Gunning's Fog Index is given by the formula:
 $0.4[(\text{average number of words per sentence}) + (\text{number of words of three syllables or more})]$

of the length and readability statistics for each of the nine letters, and a table for interpreting Flesch Reading Ease scores, are given in Appendix A.

Tone

It has been suggested that 'personal, friendly' covering letters are more effective than impersonal ones (Francel, 1966; Dillman, 2000), and this would certainly be consistent with the approach taken by direct marketers⁵. In this study the tone of each of the simple letters was modified by adding 'Hello. I'm Phil Gendall, from Massey University', changing 'Yours sincerely' to 'Kind regards', and changing the signature from 'P J Gendall' to 'Phil Gendall'. The rest of the letter remained the same. The objective of these changes was to produce a slightly 'friendlier' letter. (The changes had virtually no effect on the readability of the letter.)

Graphics

In the same way as advertising may need to 'break through the clutter' before it is noticed by consumers, it is possible that a similar problem exists for mail surveys. Furse and Stewart (1984) suggest that potential respondents, subjected to increasing numbers of mail surveys, may simply discard covering letters without evaluating their content. If this is so, then a covering letter may need to be visually striking in order to encourage the recipient to read the text. This was part of the rationale for the public information design approach tested by the US Census Bureau in its US 2000 Census test. (The research is described in detail in Chapter 5.)

To test this hypothesis, computer-generated graphics were introduced into the 'simple, friendly' letters and the text reformatted to accommodate them. There was no particular rationale for the graphics chosen, except that they had to be neutral in terms of the two appeals used. Nevertheless, the combination of the graphics used and the informal tone of the text produced what could be described as strikingly informal letters.

⁵ Thirty years ago, Hendrick, Borden, Giesen, Murray and Seyfreid, (1972) concluded that the tone of a cover letter appeal can make a difference to survey response. This conclusion was based on a survey of United States veterans in which a 'short, punchy' letter signed by General Bradley produced a 'substantially lower' response than a longer, 'more reasoned' appeal signed by the Director of Research Services. However, whether this effect was the result of 'tone', length, appeal, or signatory is unclear.

Direct marketer's letter

The letter prepared by a professional direct marketer combined elements of both altruistic and egoistic appeals. It included a salutation, 'Dear Fellow Citizen', a headline, and two postscripts. It also made use of bold text for emphasis, but, unlike all the other letters, did not explain how the respondent had been chosen for the survey. Furthermore, no countries were specifically mentioned (as they were in the altruistic letters), on the grounds that particular countries may have undesirable associations for some potential respondents. This letter was significantly shorter than all the other letters. However, its Flesch score was 58 and its Fog Index 12, indicating that its readability was closer to the complex versions of the other letters.

The survey

In September 1993, a questionnaire, covering letter on university letterhead, and reply-paid envelope were sent to 1881 New Zealanders aged 18 and over. The sample was selected systematically from the 1993 New Zealand Electoral Rolls, with the number of names selected from each electorate proportional to the size of the electorate. The sample was randomly allocated to nine groups, each containing 209 potential respondents. Each of these groups received a different version of the covering letter.

The questionnaire comprised 25 pages and 76 questions (though the total number of individual question items totaled 188). It asked respondents their opinions, behaviour and knowledge on a wide range of environmental and social issues including pollution, recycling, traffic problems, and government policy. It also included an extensive demographic section.

Unlike most other research on the effectiveness of covering letters, this study replicated the experimental design embodied in the initial covering letters in two reminder letters. Consequently it provides results for a complete mail survey rather than just first-wave responses. This meant designing two further sets of nine letters that differed from the initial covering letters and each other, but maintained the integrity of the overall experimental design.

Generally, the reminder letters were similar in appearance to the initial covering letters, though considerably shorter. However, the second reminders for the simple, friendly treatment included the word 'urgent' in a Johnson's box⁶ and a bold headline, 'Yes, it's me again' instead of 'Environment Survey', and the simple, friendly treatment with graphics incorporated a new graphic element. (See Appendix A for an example of these letters.) Flesch and Fogg scores varied between the three sets of covering letters, but for each set similar differences in relative complexity were preserved.

The first reminder was sent to all nonrespondents four weeks after the initial mailing. A second reminder, together with another questionnaire, was sent to all remaining nonrespondents three weeks later. After a further five weeks, a total of 1449 questionnaires had been returned. One hundred and fifteen respondents refused to take part in the survey, 15 had died or were otherwise ineligible, and 51 questionnaires were returned 'Gone no address'. This left 1268 valid responses, representing a response rate of $[1268/(1881-66)] \times 100 = 69.9\%$.

2.4 Results: Letter Appeals Experiment

At the end of 12 weeks, response rates for the nine treatment groups ranged from 61.9% to 75.1 % (see Table 2.2, and Appendix A for full details).

The average response rate for the altruistic appeal was significantly higher than that for the egoistic appeal ($\chi^2 = 10.1$, $df = 1$, $p < .01$). The average difference was 7.3%, but this is inflated by a difference of 13.2% for one treatment, thus the actual effect size is more likely to be around 5%. Within each appeal, the simple letters and the simple friendly letters actually produced a lower response than their more complex counterparts, but these differences were not significant.

⁶ A 'Johnson's box' is a statement that highlights the offer contained in a direct mail letter. It is usually centred on the first page, before the salutation, and is surrounded by a border or typed asterisks.

Table 2.2 Response Rates for Nine Letters

Treatment ²	Response Rate ¹ %			
	Altruistic Appeal		Egoistic Appeal	
	n	%	n	%
Complex letter	151	75.5	142	69.6
Simple letter	147	72.5	136	66.3
Simple, friendly letter	144	71.3	135	67.5
Simple, friendly letter with graphics	151	75.1	125	61.9
Direct Marketer's Letter				
	n	%		
	137	68.8		

Note: 1. Response rates adjusted for 'Gone-no-address' and ineligible responses.
2. Sample size for each cell is 209.

Within the *altruistic* appeal, the inclusion of graphics in the simple, friendly letter increased responses by about 4%, though this only matched the response to the complex letter. By contrast, within the *egoistic* appeal, the effect of graphics in the simple, friendly letter was to *reduce* the response rate by more than 5%, a difference of 8% compared with the complex letter (however, none of these differences is significant for samples of this size).

The response to the direct marketer's letter was comparable with that achieved by the three egoistic appeals without graphics, but lower than the response to each of the four altruistic appeals (again, these differences are non-significant).

Contrary to the earlier findings of Champion and Sear (1969), the response of low socioeconomic status respondents in this survey was significantly higher for the altruistic appeal than the egoistic appeal, whereas the reverse was true for high socioeconomic status respondents ($\chi^2 = 4.63$, $df = 2$, $p < .10$). This is shown in Table 2.3.

Table 2.3 Return Rates: Type of Appeal by Socio-economic Status

Socio-economic Status ²	Return Rate ¹			
	Altruistic Appeal		Egoistic Appeal	
	n	%	n	%
Low	160	55.9	126	44.1
Medium	313	52.4	284	47.6
High	57	44.5	71	55.5

Note: 1. Because 'Gone-no-address' and ineligible cannot be allocated to socio-economic groups, return rates rather than response rates are reported.
 2. Self-defined socioeconomic status.

2.5 Discussion: Letter Appeals Experiment

The results of this study suggest the content and appearance of covering letters can influence the response rate for mail surveys, but the effect may depend on the type of appeal and the way in which it is conveyed.

In a university-sponsored mail survey of the general public an altruistic appeal appears to be more effective than an egoistic appeal. The superiority of the altruistic appeal in this study was manifested not only in a higher number of valid responses (593 compared with 538), but also in fewer refusals (43 compared with 58). This result is consistent with the findings of Kerin and Harvey (1976), Houston and Nevin (1977), Jones and Linda (1978), Bellizzi and Hite (1985), Bachmann (1987), Schneider and Johnson (1995) and Cavusgil and Elvey-Kirk (1998), but at odds with those of Champion and Sear (1969) and Tyagi (1989).

Houston and Nevin (1977) concluded that their findings could be explained by the respective roles of commercial and university researchers. They argued that individuals would be more likely to respond to an appeal to help a non-profit institution, like a university, than a commercial organisation, whose motives were clearly not altruistic. On balance, the evidence available provides some support for this theory, at least as far as university researchers are concerned.

For commercial researchers, the evidence that they should use an egoistic appeal is somewhat less compelling. The commercial sponsor in Houston and Nevin's (1977) study

was a relatively obscure company, and the authors speculated that respondents might behave differently if a well-known commercial firm were involved. Jones and Linda's (1978) study provides no insight into this possibility since their commercial sponsor was a fictitious firm. Furthermore, one of their altruistic appeals was as successful as their egoistic appeal when combined with the commercial sponsor. Cavusgil and Elvey-Kirk's (1998) study supports the use of an egoistic appeal when the sponsor is a commercial firm, but Bachmann (1987) and Schneider and Johnson (1995) found social utility appeals most successful in the same circumstances. Consequently, while Houston and Nevin's proposition is plausible, it is by no means proven.

In all the studies reviewed, the survey 'sponsor' has been defined as the organisation conducting the survey, and the assumption has been that this influences respondents. However, respondents may be more influenced by who they see as benefiting from a survey; in other words, the survey 'client'. In some cases the 'sponsor' and the 'client' are one and the same, but not always. Furthermore, the client does not need to be explicitly identified, it may simply be implied. For example, if a university is conducting research with clearly commercial objectives, respondents may see the survey 'sponsor' as commercial rather than university. If this is so, the notion of survey sponsor needs re-examination.

Studies of the effect of covering letter appeals (including this one) assume that it is possible to define the cognitive basis of different appeals and then operationalise this in a way that is generalisable. However, it is clear that researchers have chosen different ways of creating what are assumed to be the same appeals. In some cases there may even be debate over what type of appeal has been created. Thus the question of execution is always a potentially confounding issue when covering letter appeals are compared. Though the appeals used in this study were modelled on accepted notions of 'altruism' and 'egoism', they could just as easily (and just as legitimately) be described as 'strong' and 'weak' appeals. Consequently, it may be more useful not to attempt to ascribe essentialist definitions to covering letter appeals at all, but simply to focus on particular words or phrases that appear to be more effective.

Though it has not been mentioned in the literature, an interaction between survey topic and covering letter appeal also seems possible. Some topics (the environment, for example) appear inherently more altruistic than others, and it could be argued such topics would reinforce an altruistic appeal (and vice versa, for topics at the other end of the altruistic-self-interest spectrum). There is no evidence in Table 2.1 of a consistent relationship between survey topic and most successful appeal to support this suggestion. However, it seems reasonable to conjecture that, if sponsor-appeal effects exist, topic-appeal effects might also occur.

Within the different appeals tested, there is no evidence that simplicity increases the effectiveness of covering letters (in fact, if anything, this study suggests the opposite). This is consistent with the findings of Williams, Beard, and Kelly (1991) who, in a large direct mail study, found that as long as copy is well written, the reading grade level does not have a significant effect on response rates. However, as Williams et al. point out, readability formulae such as the Flesch Reading Ease formula are limited in their ability to measure readability since they ignore issues such as formatting, organisation, paragraph length and tone, and implicitly assume that the comprehensibility of a narrative passage is the same as its readability. In this study it could be argued that the difference in readability of the letters used was small and that this may explain the absence of any comprehensibility effect. It would also seem unwise to assume letters that were very difficult to read would not reduce response rates.

It is difficult to define precisely what constitutes tone in a covering letter. Nevertheless, to the extent that this has been done in this study, there appears to be an interaction between tone and appeal and response rate. While a 'friendlier' tone by itself had no effect on response rates, the combination of informal graphics and personal, friendly style did, at least for the egoistic appeal. In this case, a strikingly informal covering letter reduced the response rate. A possible explanation for this result may be that such informality is consistent with an altruistic appeal but not with an egoistic appeal. Perhaps a very informal tone reinforces a request for help, whereas the same tone reduces the credibility of the proposition that respondents' opinions are important.

The fact that a letter designed by a direct marketing professional did no better than those written by a survey researcher might suggest that special skills are not required to write effective mail survey covering letters. However, it seems more likely that the most important direct marketing principles had already been incorporated in the other letters, so the room for improvement in them was minimal.

2.6 Conclusions

In competently conducted mail surveys of the general public, response rates of between 60% and 70% can be achieved by using two or three reminders. The research described in this chapter suggests that, when the sponsor of such studies is a university, the response rate can be increased by as much as 5% by explicitly asking for respondents' help rather than offering them a chance to express their opinions. The study also suggests the complexity and tone of the covering letters used in these circumstances have little or no effect on response rate, and the effect of graphics, if there is one, may be negative under some conditions.

This implies that the manipulable elements of covering letters are relatively unimportant compared with the effect of additional contacts with respondents. This does not mean these elements should be ignored; a 5% increase in response is still worth achieving, even if it is on top of a 70% response rate. However, because survey sponsor, topic, target population, type of appeal and its execution are inextricably interrelated, it may be impossible to establish general rules for the content, style and appearance of covering letters for *ad hoc* surveys (beyond the common sense guidelines of clarity and relevance to respondents).

Nevertheless, while it may be futile to test creativity in covering letters in the hope of predicting what will work best in an *ad hoc* survey, it does make sense to do this for regular, repeated surveys. In this case, the approach used by direct marketers is a logical framework for development. This approach is to use the letter assumed to work best and observe its performance, then to test alternative approaches and compare them with the

established standard. If a new approach produces better results, this is adopted as the new standard until another letter performs better.

Thus, while the application of direct marketing techniques to the writing and presentation of mail survey covering letters may increase their effectiveness, it appears this effect is marginal when the normal precepts of good mail survey practice are followed. This is not a reason for abandoning attempts to use creativity and imagination in the process of engaging respondents' cooperation, but it is a caution to be realistic about the outcome of such attempts.

3. THE EFFECT OF COVERING LETTER PERSONALISATION

3.1 Introduction

Personalisation of mail survey covering letters may involve one or more of the following: including the respondent's name and address in the letter; using a salutation that includes the respondent's name (i.e., "Dear..." rather than "Dear respondent" or "Dear householder"); an individually typed letter; an original rather than a copied signature; a handwritten note in the covering letter.

There are two justifications for personalisation, both drawing on the theory of social exchange. The first argues that, if potential respondents recognise the extra effort required to personalise the researcher's correspondence with them, they will be more likely to respond because of the social obligation to reciprocate the expended effort (Dillman 1978). However, this seems a rather tenuous rationalisation, since it assumes that respondents are aware of the trouble the researcher has taken to personalise the survey correspondence. Why this should be so is by no means obvious; after all, as far as each respondent is concerned, only one letter has had to be personalised.

The second argument is that personalisation creates the impression that respondents are receiving the researcher's special attention and that their answers are singularly important. Thus personalisation reinforces respondents' self-image and, according to the theory of social exchange, making respondents feel more important should increase the likelihood of them responding to the survey request. While this argument seems more plausible than the first, on closer examination it is only slightly more convincing. If respondents understand anything at all about survey research, they will know they are only one of perhaps several thousand people contacted. Thus they or their answers are hardly unique.

Nevertheless, 'personalisation', transparent as it may be, could create a norm of reciprocity. The researcher has gone to the trouble of addressing the respondent individually – paid them the courtesy of taking the time to individualise their correspondence – and this may create a sense of obligation on the part of the respondent to repay this social courtesy with

the reciprocal courtesy of responding to the survey. Alternatively, personalisation may simply make it more difficult to refuse a survey request by reducing the anonymity of this action.

The following sections of this chapter review the literature on personalisation of mail survey covering letters. They then describe a study designed to re-examine the effect of cover letter personalisation on the response rate to a mail survey of the general public. The study compares the 'standard' approach used in mail surveys conducted by the Department of Marketing, Massey University, with Dillman's 'personalised' approach.

3.2 Covering Letter Personalisation

Whatever the explanation for the effect of personalisation, the general assumption has been that personalising survey covering letters should enhance the response to a mail survey. But most reviews of personalisation studies report that the effect of personalisation in survey covering letters is varied and sometimes contradictory. One of the reasons for this ambiguity is the fact that the reviews have simply taken the results at face value and have not considered the different populations involved, the topic concerned, or the expected direction of the effect for different populations. Furthermore, the passage of time on the impact of personalisation has rarely been considered; studies conducted in the 1950s and 1960s, when personalisation was difficult to implement and to some extent 'novel', are given the same weight as studies in the 1980s the 1990s when personalisation was much easier to achieve and much less novel.

To examine properly the effect of personalisation on mail survey response it is important to divide studies into those using samples of the general public and those directed at commercial populations or 'elite' populations, such as doctors or lawyers. Within these categories the expected direction of the effect also needs to be considered. It is often assumed that personalisation is more important in 'industrial' mail surveys than in surveys of the general public because of the need to identify correctly the appropriate respondent in an organisation. It is also assumed that, if personalisation has an effect on response, it will

be positive (because the correct person in the organisation has been identified). By contrast, in surveys of the general public it can be argued that the effect of personalisation may be positive or negative. The arguments for a positive effect have been elaborated above. The argument for a negative effect is that, where respondents desire anonymity, personalisation may decrease response rates because it emphasises the lack of such anonymity.

Table 3.1 summarises studies on the personalisation of covering letters conducted since 1970, and forms the basis of the following discussion. The summary does not include studies before 1970 because, for a technique like personalisation, results more than 30 years old have little relevance to current survey practice.

Personalisation in surveys of the general public

Before 1970, several authors (including Linsky, 1965) suggested that the handwritten signature of the sender of the questionnaire was one of the "accoutrements requisite for obtaining a high rate of return" (Kawash & Aleamoni, 1971, p. 590). Kawash and Aleamoni tested this hypothesis in a survey of university teachers' use of audiovisual instructional material. Half their sample received a covering letter with a handwritten signature, the other half a covering letter with a mimeographed facsimile signature.

Response to the personalised letter was 1% higher than to the nonpersonalised letter (28% vs 27%) but the difference was nonsignificant. Kawash and Aleamoni concluded that, by itself, the handwritten signature had little effect on mail survey response, though they speculated that the content of the covering letter might have been sufficiently personal to counteract the effect of the handwritten signature, or that the effect of the handwritten signature might only be manifested in combination with other variables.

Subsequent studies by other researchers replicated Kawash and Aleamoni's findings, though one small study by Dodd and Markwiese (1987) found the response rate in a survey

Table 3.1 The Effect of Personalised Covering Letters on Mail Survey Response Rates: A Summary of the Literature

Study	Population	Topic	Treatments Tested	Effect of Personalisation on Response Rate
Andreason (1970)	Lottery winners	Not mentioned	Mimeographed salutation 'Dear Lottery winner'. Hand-typed salutation 'Dear....'. Hand-typed salutation 'Dear....' and handwritten postscript.	Decreased response by 3% to 4%. ¹
Kawash & Aleamoni (1971)	University faculty	Audiovisual instructional materials	Handwritten signature. Mimeographed facsimile signature.	Increased response by 1%.
Dillman & Frey (1974)	University faculty	University policies	Individually typed name, inside address, personal salutation, individually signed in blue ink. Preprinted salutation, black copied signature.	Increased response by 8% and response speed marginally.
Carpenter (1974)	General public	Not mentioned	Computer address label, no inside name and address, non-personalised salutation 'Dear Arizonian', hand signed signature. Manually typed name and address, printed signature in blue ink, personal salutation, windowed envelope. Typed letter and envelope including respondent name and address, personal salutation, hand signed. Dillman's Total Design Method.	Increased response by 1% to 7%.
Cox, Anderson & Fulcher (1974)	General public	Financial institutions	'Personalised' cover letter.) 'Nonpersonalised' cover letter)	No specific details Increased response by 8%.
Matteson (1974)	University academics	Academic literature	Hand-typed personal salutation, handwritten signature Printed salutation 'Dear Colleague', facsimile signature	Increased response by 10%.
Kerrin (1974) and Kerin & Petersen (1977)	Department store credit applicants (all female)	Household products	Mimeographed cover letter. Printed letter, personal salutation, handwritten signature and postscript.	No effect on response rate but family income and wife's occupation biased by personalisation.

Note: 1. These differences were in the direction predicted by the author(s).

Table 3.1 (cont.) The Effect of Personalised Covering Letters on Mail Survey Response Rates: A Summary of the Literature

Study	Population	Topic	Treatments Tested	Effect of Personalisation on Response Rate
Houston & Jefferson (1975)	New car buyers	Information sources for car buying	Individual name and address included on questionnaire, all references to anonymity removed from cover letter. No personal reference in questionnaire or cover letter. Confidentiality statement included in cover letter.	Decreased response by 16% and increased item omission. ^{1,2}
Kerin & Harvey (1976)	<i>Fortune 500</i> presidents	Product recall practices	Individually typed letter with President's name and address, personal salutation and handwritten signature. Mimeographed 'form' letter.	Increased response by 13%.
Forsythe (1977)	Business executives	Sources and uses of statistical information	Letter addressed by name. Letter addressed to 'Chief Officer'.	Decreased response by 8% to 20%.
King & Wilson (1978)	Banking executives	Management practices	Cover letter individually typed, personal inside address and salutation, personally signed. Cover letter mimeographed, personal inside address and salutation, personally signed. Cover letter mimeographed, no inside address, salutation. 'Dear Mr President', copied signature.	Increased response by 11% and reduced number of incomplete questionnaires.
Labrecque (1978)	Boating marina customers	Customer satisfaction	Hand addressed outside envelope, cover letter with hand written salutation and signature. Envelope not hand addressed, cover letter without handwritten salutation or signature.	Decreased response by 1%, but not significantly.
Jobber & Sanderson (1985)	Marketing executives	Marketing information systems	Handwritten postscript. Typed postscript. No postscript.	Decreased response by 3% and 4%.

Note: 1. These differences were in the direction predicted by the author(s).

2. Though the authors claimed to have tested personalisation the test treatment was actually a guarantee of anonymity.

Table 3.1 (cont.) The Effect of Personalised Covering Letters on Mail Survey Response Rates: A Summary of the Literature

Study	Population	Topic	Treatments Tested	Effect of Personalisation on Response Rate
Worthen & Valcare (1985)	School teachers	Curriculum content	Hand-typed letter, personal salutation, handwritten signature. Mimeographed form letter, salutation 'Dear Teacher', facsimile signature.	Increased initial response by 7% and subsequent response by 9%.
Green & Stager (1986)	School teachers	Classroom testing and grading	Addressee's surname handwritten, letter hand-signed in blue ink. Typed and Xeroxed salutation 'Dear Educator', facsimile signature.	Salutation increased response by 7%, signature reduced response by 5%.
Dodd & Markwiese (1987)	University staff (all female)	Not mentioned	Hand-signed signature in blue ink. Photocopied facsimile signature.	Increased response by 21%.
De Leeuw & Hox (1988)	General public	Education and upbringing	Not personalised, no handwritten signature, third class mail. Not personalised, reminder by first class mail. Not personalised, reminder by certified mail. Personalised, reminder by certified mail (Dillman's TDM).	Increased by 10% when combined with certified reminder. Personalisation increased social desirability bias.
Martin, Duncan, Powers & Sawyer (1989)	University students	University attributes	'Dear occupant'. Personalised salutation.	Increased by 5% to 7% when combined with prenotification.
Clark & Kaminiski (1990)	Marketing practitioners	Journal readership	Personalised, handwritten cover letter. Form cover letter, salutation 'Dear AMA Colleague', facsimile signature.	Increased response by 2% to 20%.
Sutton & Zeits (1992)	Business and trade professionals	Energy rebate programme	Business name only on survey materials. Customers' personal names on all survey materials.	Increased response by 1% to 2% but not significantly. Interaction between personalisation and prior notification.
Taylor & Lynn (1996)	Panel of teenagers	Work, school and training experiences	Salutation 'Dear Stephen Taylor'. Salutation 'Dear Sample Member'.	Increased response by 1% and marginally increased response speed.
Dillman (2000)	General public	Not mentioned	Four unspecified personalisation tests.	Increased response by 5% to 11%.

of female university staff was 21% higher for questionnaires with hand-signed cover letters than for those with photocopied signatures (but only 27% of their 200 questionnaires were returned completed).

While Dillman did not test personalisation experimentally in either of two mail surveys he reported in 1972, the paper that describes these studies is important because it contradicted previous received wisdom that lower response rates were inevitable with mail surveys (Dillman, 1972). Dillman showed that large samples of the general public could be stimulated to respond well to lengthy mail questionnaires, though it was not possible to isolate the individual effect of the features he employed.

Dillman was not the first to demonstrate that good response rates could be achieved in mail surveys of the general public. But Dillman's 1972 article marks a watershed in mail survey research in its rejection of the claim that mail surveys were inherently condemned to low response rates. Though many mail surveys do achieve poor response rates, this is not inevitable, yet the myth that mail surveys invariably produce low response rates has proved difficult to dispel (Yu & Cooper, 1983), despite clear evidence of the efficacy of well-conducted mail surveys.

However, Dillman did subsequently test the specific effect of cover letter personalisation in a survey of university faculty, concerned with university policies (Dillman & Frey, 1974). The experiment tested letters with the respondent's name individually typed, containing the respondent's address, with a personalised salutation and individually signed in blue ink, against letters with a preprinted salutation and a black, copied signature. Personalisation increased response by 8% (69% to 77%) and also increased response speed marginally; the difference of 2% to 3% in the cumulative returns was consistent through the fourth mailing.

Carpenter (1974) repeated Dillman's (1972) personalisation approach in a survey of the general public in Arizona and compared it with three less personalised treatments. Responses to the three treatments were in the expected direction: the least personalised had the lowest response and the most personalised the highest. (All the response rates were

respectable, ranging from 64% to 72% for the treatments and 73% for the control.) Carpenter's objective was to see how much personalisation could be reduced before it had a significant effect on response (bearing in mind that, at the time, the sort of personalisation recommended by Dillman was time-consuming and expensive to achieve). Carpenter concluded that, if the *appearance of personalisation* could be achieved (regardless of how this was actually done) the effect of personalisation will be maintained.

However, the interpretation of Carpenter's study is confounded by the way in which he operationalised personalisation. His three treatments were ostensibly designed to represent increasing levels of personalisation. But, for some inexplicable reason, his least personalised treatment included a handwritten signature, whereas the letter designed to represent the next highest level of personalisation did not. Nevertheless, since this handwritten signature was the only concession to personalisation in the least personalised and least successful of Carpenter's letters, it suggests that a handwritten signature by itself is not a particularly important element of personalisation. This conclusion is consistent with Kawash and Aleamoni's (1971) study that specifically tested the effectiveness of a handwritten signature (though their survey population was different to Carpenter's and their response rate very much lower).

Cox, Anderson, and Fulcher (1974) tested what they described as 'personalised' and 'nonpersonalised' cover letters in a survey of American consumers' evaluations of financial institutions and their offerings. The authors give no indication of how the two treatments actually differed, but based on the previous studies they refer to, it seems likely that their personalisation involved personalised salutation and signature, and possibly the respondent's name and address on the personalised cover letter. The 'personalised' treatment produced a significant increase in response of around 8%. A similar study of members of a professional academic organisation by Matteson (1974) produced a similar result; a 10% increase in response to a personalised cover letter. However, the overall response rate in both studies was very low: 18% in Cox et al.'s study, 27% in Matteson's.

Cox et al.'s study was a 2 x 2 design that, in addition to personalisation, also tested follow-up postcard reminders and the interaction between these two survey features. The reminder postcard increased the response rate achieved (though the difference was nonsignificant) but there was no evidence of any interaction effect. This latter result was consistent with the conclusions drawn in earlier studies by several researchers including Wiseman (1973), though Matteson (1974) found some evidence that a pink questionnaire was more effective when combined with his form letter.

Around the mid-1970s researchers began to consider the effect of personalisation on data quality as well as response rate. One of the first of these studies was reported by Kerin (1974), who examined whether personalisation in an advance notice and cover letter increased reporting bias for certain demographic variables. Kerin's study involved a mail survey of female credit card applicants to an American department store. (The same experiment is discussed in Kerin and Peterson (1977).) Kerin hypothesised that social desirability bias would distort the responses of some of those who received the letter personalised with an individual salutation, a handwritten signature and postscript.

Personalisation by itself had no effect on the response rate achieved, but a significant response bias was detected for family income (which tended to be overstated) and wife's occupation. However, for five other demographic variables there was no evidence of response distortion. Kerin concluded that, where a personalised approach is used, recipients may distort responses – especially to sensitive questions – to enhance self-image, though he admitted that there was some ambiguity in the reference base used, which meant that he could not be certain that the differences observed were in fact evidence of response distortion.

Two studies involving mail surveys of teachers produced conflicting results on the effect of personalisation. The first, by Worthen and Valcare (1985), tested personalised and form letters in a survey on curriculum content among Utah school teachers. The personalised letter increased initial response by 7% (28% vs 21%). Nonrespondents in each group were randomly divided, with half receiving personalised reminder letters and half receiving form

letters. Nonrespondents to the personalised letter responded better to a personalised reminder than a form reminder (36% vs 27%), but a personalised reminder to nonrespondents to the initial form letter had no effect on response.

Neither of the differences between personalised and form letters reported by Worthen and Valcare was significant at the 5% percent level, leading the authors to conclude, contrary to the evidence presented, that personalisation had no effect. Neither did they draw the obvious conclusion that consistency is important when applying response-enhancing techniques in mail surveys. This latter conclusion was supported by the results of another survey of teachers, this time a survey of classroom assessment and grading among Wyoming teachers conducted by Green and Stager (1986)¹.

Green and Stager tested the separate and combined effects of a handwritten salutation compared with a typed and Xeroxed salutation, 'Dear Educator', and a handwritten signature in blue ink compared with a Xeroxed signature. The personalised salutation increased response by 7%, the handwritten signature reduced it by 5%, though neither difference was statistically significant (and the overall response rate was 80%). More importantly, fewer questionnaires were returned if there was incongruity between salutation and signature; that is, if one were personalised and the other not.

Between the mid-1970s and late 1980s, studies of the effect of personalisation in mail surveys were almost exclusively confined to experiments involving 'industrial' populations or special subgroups of the general public, such as teachers (the exception is Labrecque's 1978 study, discussed later). De Leeuw and Hox (1998) were one of the first to revisit the issue of cover letter personalisation in surveys of the general public. They tested Dillman's Total Design Method – personalised cover letter, a simple attractive questionnaire, a reminder postcard to all sample members and a final reminder, accompanied by a questionnaire, sent by certified mail – against four treatments that omitted one or both of personalisation and the certification of the final reminder letter, in a randomised 2 x 2

¹ In an earlier study, Nederhof (1983) concluded that repeated personalisation produces better results than a personalised first mailing and impersonal follow-ups. However, Nederhof's study involved the personalisation of the survey envelope rather than the cover letter.

design. Their study involved a survey of members of the Dutch general public that questioned them about their education and upbringing.

The TDM method achieved a response rate of 71%; omitting personalisation reduced response to 61%, omitting certification reduced it to 53%. Somewhat contradictorily, omitting both treatments produced a response rate of 58%; thus the combined effect of personalisation and certification was a 13% increase in response. However, by itself personalisation had no effect (to be more precise, the effect of personalisation was mixed: in one comparison it increased response by 4% but in the other it decreased response by 5%).

De Leeuw and Hox also analysed the influence of personalisation on data quality, namely, on item-nonresponse, scalability of individual response patterns and social desirability bias. They found no significant treatment effects for the first two measures, but found that respondents who received personalised letters gave significantly more socially desirable answers than those who did not (though the combination of personalised cover letters and certified reminder did not produce this effect). In de Leeuw and Hox's study there were no statistically significant differences between experimental treatments after the first and second mailings. Only after the third, certified, mailing did the differences occur. This raises the question of whether the same result would have been achieved if only the final, certified mailing had been personalised.

The major weakness in de Leeuw and Hox's study is the rather small sample sizes involved (100 in each treatment), which reduces the power of the statistical tests used. There are some differences between the mean item-nonresponse rates, for example, which are not significant but nevertheless suggest that personalisation, or certification, or both, might actually increase item-nonresponse.

In a 1989 survey of American university students' perceptions of university attributes, Martin, Duncan and Powers tested a cover letter with a personal salutation against one with a 'Dear occupant' salutation. This factor was one of four response inducement techniques

(prenotification, follow-up, return postage, and personalisation) included in a 2 x 2 x 2 x 2 factorial design. Personalisation was hypothesised *not* to have a significant influence on response because it was "becoming increasingly common" (Martin et al., 1989, p. 71).

By itself, personalisation had no effect on response (confirming the authors' expectations), but in combination with prenotification it increased response by 5% to 7%. Martin et al. offer no explanation for this result, and the fact that the results of the study are based on rather low response rates (between 29% and 38%) reduces confidence in its findings.

Finally, as part of the England and Wales youth cohort study (YCS), a longitudinal panel study providing information about the youth labour market, Taylor and Lynn tested a rudimentary form of personalisation – a cover letter with the salutation of the form 'Dear Stephen Taylor' against the YCS standard nonpersonalised salutation – 'Dear sample member' (Taylor & Lynn, 1996). From the main sample of 27,000 UK teenagers, a random sample of 1000 received a personalised cover letter. (However, the personalisation was not continued at the reminder stages.)

Personalisation increased the response rate by 1%, from 66% for the main sample to 67% for the experimental subsample (the difference is not significant). There was also some evidence of a marginally faster response from those who received a personalised letter. Taylor and Lynn concluded that the gains made from personalisation would be unlikely to warrant the extra cost involved. However, they did recognise that their 'personalisation' of the covering letter was rudimentary. In fact, it could be argued that 'Dear Stephen Taylor' is hardly a personalised salutation. Furthermore, the outer envelopes for both treatment and control groups had the respondent's full name and address on the address label. Taylor and Lynn speculated that a 'fuller' personalisation (with name and address appearing in the cover letter and all mailings personalised) might be more likely to produce a significant effect

Since 1970, there have been three studies of covering letter personalisation in surveys of the general public that have shown depressed survey response. More than 30 years ago

Andreasen (1970) pointed out that the common assumption that the effects of personalisation on response rates are always positive is false. Andreasen argued that personalisation might act as a depressant to response for respondents who fear loss of anonymity will have undesirable consequences. Such respondents could include householders who have made recent purchases of major durable items, concerned about sales calls from accessory suppliers.

Andreasen tested this hypothesis on a sample of New York state lottery winners using three different levels of personalisation in the initial covering letter and either a completely handwritten or mimeographed reminder letter. Because lottery winners often receive calls from various high-pressure sales agents after the announcement of their winnings, Andreasen reasoned that the greater the impersonality of the correspondence accompanying the mail questionnaire, the greater the return rate of delivered questionnaires.

Overall, there was little difference in the response rates achieved by the three treatments, but, as expected, personalisation reduced response (by 3% to 4%) and there was also some evidence that the negative effect of personalisation increased as the level of winnings rose. However, as Andreasen pointed out, it took a significant 'dose' of personalisation – an individually addressed letter with a handwritten postscript, followed by an entirely handwritten reminder letter – to produce even a small effect on the response rate. Thus he concluded that personalisation is a variable with "low potency for affecting response rate" (Andreasen, 1970, p. 277), and consequently that the costs of personalisation are unlikely to be justified by the benefits, and in some cases the 'benefits' may be negative.

Houston and Jefferson (1975) tested what they described as personalised and nonpersonalised covering letter approaches in a study of new car buyers. They hypothesised, like Andreasen, that personalisation would depress response because new car buyers are post-purchase targets of sellers of complementary goods such as seat covers, tape decks, and so on. Thus, they argued, this particular population would respond better to a nonpersonalised approach.

However, when Houston and Jefferson's operationalisation of personalisation and nonpersonalisation is examined, it appears they actually tested anonymity rather than personalisation. Subjects in the personalised treatment of Houston and Jefferson's study received questionnaires with their names and addresses on the top of the first page. In addition, all references to anonymity and efforts to maintain respondent nonidentification were omitted from the cover letter. Subjects in the nonpersonalised treatment received cover letters and questionnaires emphasising respondent anonymity. No personal reference to the respondent was included in either the cover letter or the questionnaire, but a statement emphasising confidentiality was included in both the cover letter and the questionnaire. Though Houston and Jefferson refer to 'anonymity', they appear to use this term and 'confidentiality' interchangeably. Thus it is not completely clear if their 'nonpersonalised' treatment was anonymous or simply confidential. Given the absence of any reminders, it was probably the former.

The study showed a 16% increase in response to the 'nonpersonalised' approach, 11% more questionnaires returned with no unanswered questions and faster response (when no incentive was included). The authors concluded that personalisation had depressed response to the survey. However, since the study effectively tested a guarantee of anonymity rather than personalisation, a more plausible interpretation of the results is that new car buyers guaranteed anonymity are more likely to respond to a survey than those who are not.

Wiseman (1976) came to the same conclusion: putting the respondent's name and address on a questionnaire does not personalise it, rather it deprives the respondent of confidentiality. Thus, Houston and Jefferson's results were consistent with Wiseman's (1973) finding that response rate decreased when respondents were asked to put their name and address on the return envelope to obtain survey results. They are also consistent with Singer, Von Thurn and Miller's later meta-analysis of studies involving assurances of confidentiality, which concluded that confidentiality assurances improve mail survey response rates when the data sought are sensitive (Singer, Von Thurn, & Miller, 1995).

Although Houston and Jefferson's results add little to our understanding of the effects of personalisation, nevertheless their study did show that a strong interaction can occur between a survey incentive and another factor designed to increase survey response rate. This interaction between response-inducing factors is contrary to the findings of a number of previous studies that found no significant interaction effects.

Labrecque (1978) tested personalisation in the form of a hand-addressed outer envelope and an inside cover letter with a handwritten salutation and signature, in a survey of customers of a New England marina. His study used a factorial design in which he also tested a commemorative stamp and two variations in the status of the letter signatory. Response to the personalised letter was 1% *lower* than to the nonpersonalised ones (43% vs 44%). There were no significant interaction effects between personalisation and the other two factors tested (though the sample sizes used were small).

Labrecque, like most researchers, assumed that personalisation would enhance response. However, following Andreassen and Houston and Jefferson's logic, the direction of the personalisation effect in Labrecque's study could be explained in terms of customers' desire for anonymity. Thus, Labrecque's result may not be as counterintuitive as it seems.

Personalisation in industrial surveys

Studies of covering letter personalisation in industrial surveys are less prevalent than those involving the general public (or some subset of the general public). Nevertheless, there have been at least six studies of personalisation in an 'industrial' survey context since 1970.

Kerin (1976) conducted an experiment designed to test the effect of three variables, including personalisation of the covering letter, on the response rate for a university-sponsored mail survey of *Fortune 500* corporate presidents (the other two variables were the appeal used and a stamp versus no stamp on the return envelope). Kerin's personalised treatment consisted of an individually typed covering letter with the president's address, a personal salutation, and a handwritten signature. This was compared with a mimeographed 'form' letter. The personalised letters increased the response rate by 13% (from 29% to

42%), a significant difference. However, there was no evidence of significant interaction effects.

Forsythe (1977) reports a survey of American business executives conducted by the US Census Bureau. Where the names and titles of the chief officers of the companies surveyed could be found, the cover letters were personally addressed. The letters to firms for which names and titles were not obtained were addressed simply to the 'Chief Officer'. The 'survey' was a request to provide the names of key people in the firms who were knowledgeable about their firm's use of statistical information.

Contrary to expectations, the response rate of firms receiving letters addressed to the 'Chief Officer' was between 8% and 20% higher than the rate for firms receiving letters addressed to a specific person. Forsythe offers no explanation for the fact that personalisation of the cover letter appeared to have a detrimental effect on response. Instead his paper concentrates on the finding that asking respondents to give names by telephone was less successful than making the same request by mail; a result that was also contrary to expectations, but at least had a plausible explanation – the ability of chief executives to delegate mail requests.

King and Wilson (1978) tested the effectiveness of a personalised covering letter in a survey of bank presidents and CEOs. They used three treatments: a control comprising a mimeographed cover letter with no inside address, the salutation 'Dear Mr President' and a mimeographed signature, and two letters personalised by the inclusion of a personal inside address and salutation and a personal signature by the researchers. These two personalised letters differed in that the body of one was typewritten while the body of the other was mimeographed, but this difference proved inconsequential so the experiment was effectively reduced to the comparison of a personalised versus a nonpersonalised cover letter.

The effect of personalisation was to increase the response rate from 44% to 55% and to reduce the proportion of incomplete questionnaires from 17% to 9%. Neither of these

differences is significant at 5% level, leading King and Wilson to conclude that the study provided no strong evidence of the effect of personalisation in cover letters on the response to mail surveys. However, the sample sizes in the study were small, only 80 for each treatment, so the lack of significance observed is not surprising. King and Wilson's conclusions seem too cautious; their results support the conclusion that personalisation enhances the response to an industrial mail survey, even if their results are not significant.

Jobber and Sanderson (1985) tested an offer of a full survey report, presented either in the final paragraph of the covering letter or as a typed or handwritten postscript, in a survey of senior UK marketing executives. The researchers did not necessarily expect the offer of a report to enhance response because this meant respondents giving up their anonymity (though the topic of the survey, Marketing Information Systems, was not exactly sensitive). However, they cited previous evidence of a significant increase in response when a handwritten postscript was used on a sample of car drivers (Hopple 1952, cited in Jobber & Sanderson, 1985).

The postscripts were spectacularly unsuccessful (as was the offer itself); both the typed postscript and the handwritten postscript produced lower response rates than the offer presented in the body of the covering letter (15% and 14%, respectively, vs 18%). However, the sample sizes used by Jobber and Sanderson were small (110) and the response rate achieved was very low, so it is difficult to draw any robust conclusions from their study.

Subsequently, Clark and Kaminiski (1990) tested what could be described as the ultimate in personalisation against a nonpersonalised 'form' letter in a survey of marketing practitioners (AMA journal subscribers). The personalised cover letter was entirely handwritten and included the date and a personal salutation. The nonpersonalised letter was identical in content but was typewritten and offset printed, had a facsimile signature and used 'Dear AMA colleague' for the salutation. The study also tested real first-class postage stamps on outgoing and return postage versus bulk-rate 'permit stamp', and pre-addressed business reply envelopes versus pre-addressed envelopes with first-class postage.

With the stamp treatment held constant, the response rate was significantly higher for the questionnaire accompanied by the handwritten letter than when the form letter was used. The differences ranged from 2% (not significant) to 20%. The highest response was achieved by the treatment with real postage stamps on both the outgoing and returned mail with the handwritten cover letter, suggesting that the stamps had enhanced personalisation of the handwritten letter.

The fact that a completely handwritten letter sent to well-educated, busy executives outperformed a nonpersonalised form letter is not particularly surprising. But, except for rather small surveys, it is not particularly helpful, because of the time and cost involved. Nevertheless, for small surveys of hard-to-contact groups this could be a cost-effective approach. Unfortunately, Clark and Kaminiski did not test a more personalised version of their 'form' letter; for example, a form letter with a personal salutation and perhaps a handwritten signature. Given the population surveyed, this would have been a more practical and logical control for their experiment.

Sutton and Zeits (1992) also tested personalisation, in the form of the respondent's name included on all survey correspondence, in a survey of US businesses and 'trade allies' – outside contractors, vendors to architects, and engineers who provided advice to the businesses surveyed. They concluded that, overall, personalisation produced a slightly higher but insignificant difference in response rate (1% to 2%) and that the only situation in which it had any noticeable impact was when no prior notification was combined with nonpersonalisation. Sutton and Zeits speculated that one reason for this lack of personalisation effect could be the size of the companies surveyed. Since most were small to medium-sized, they argued that personalising survey materials would not be as critical in ensuring that materials reached the appropriate person as it would be in large companies.

However, another explanation for the interaction between personalisation and prior notification is that potential respondents in one of the two groups studied were not randomly allocated to personalisation treatments. Where details of the respondent were

available because of prior involvement with the survey sponsor, the respondent received a personalised treatment. Consequently, these respondents may have been predisposed to respond, regardless of the personalisation of the survey materials. In fact, Sutton and Zeits mention this as a possible reason for the higher response to the no prior notification treatment. Furthermore, it is not clear whether the number of contacts was the same for all treatments – it seems not – and this also casts doubts on the researchers' conclusions.

The effect of personalisation

At least fifteen studies of personalisation in surveys of the general public have been conducted since 1970. In eight studies personalisation increased survey response, in two studies there was no direct effect of personalisation on response, but there were positive interaction effects in combination with other response inducing techniques, in one study there was no effect, and in four studies the effect of personalisation was either negative or mixed. However, two of these latter studies predicted a negative effect of personalisation on response, and one of the studies was actually a study of anonymity rather than of personalisation. Of the six studies of personalization in 'industrial' populations since 1970, four reported a positive effect and two a negative effect.

On balance, it appears that personalising covering letters increases mail survey response rates. However, a number of studies used personalisation in only one mailing and had no follow-up procedures, whereas other studies used personalisation procedures in a number of mailings. Results of studies using no follow-ups are, in many cases, not comparable with those of studies using multiple follow-ups (Nederhof, 1983). There were also large differences in the mode of personalisation employed; some of the studies had flawed research designs, others had small sample sizes and low response rates.

Furthermore, as Taylor and Lynn (1996) have pointed out, many of the experiments showing a positive effect of personalisation were carried out in the 1970s. Subsequent advances in technology have made it much easier to personalise letters, and personalised letters are now used in most forms of direct marketing or advertising. Thus, even if personalisation had an effect 30 years ago, it may not do so any longer, since it is not

perceived as requiring any special effort on the part of the sender, or as being in some way 'special'.

Nevertheless, Dillman's personalisation strategy, applied not only in the initial mailing but in three subsequent follow-ups, seems to have been consistently successful, and he quotes four tests of personalising mailings on general public samples that resulted in response rate increases of between 5% and 11% (Dillman, 2000, p. 158). Consequently, personalisation of survey correspondence appears to be worthy of further examination.

Dillman's personalisation strategy is based on the guiding principle that the tone and content of a mail survey covering letter should reflect the style used in a business letter to an acquaintance who was not known to the sender. The specific elements of personalisation proposed by Dillman are: specific date; e.g., 1 June 2000; the respondent's name and address; a personal salutation, e.g., 'Dear'; a real signature in contrasting ink, i.e., a 'pressed blue ball-point pen signature'; and letterhead rather than copied stationery (Dillman, 2000, pp. 159-165). According to Dillman, applying these personalisation elements should produce a collective impact of between five and eight percentage points (Dillman, 2000, p. 165).

3.3 Method: Personalisation Experiment

The vehicle for this research was the 2000 International Social Survey Programme (ISSP) survey on the environment, a mail survey of 2000 members of the New Zealand general public, conducted between August and November 2000. The sample was randomly selected from the New Zealand Electoral Roll, with proportional stratification by electorate. The questionnaire comprised 28 pages and included 143 questions, mostly concerned with environmental issues or demographics.

After three reminders (and a prenotification letter), 1112 valid questionnaires had been returned, 54 respondents refused to take part in the survey, 41 had died or were otherwise

ineligible, and 166 questionnaires were returned ‘Gone no address’. This represents a response rate of $[1112/(2000-207)] \times 100 = 62.0\%$.


Sample members were randomly assigned to one of two groups, and each group received either a ‘personalised’ or ‘nonpersonalised’ covering letter. The four differences between the two letters are illustrated in Figure 3.1, and a copy of the initial covering letter is reproduced in Figure 3.2. These differences between personalised and nonpersonalised letters were replicated in the pre-notification letter and the two reminder letters used in the survey².

Figure 3.1 Differences Between the ‘Personalised’ and’ Nonpersonalised’ Letters

Feature	Personalised	Nonpersonalised
Respondent name and address	Mr David Smith 10 Fort Street Dunedin	None
Date	6 September 2000	September 2000
Salutation	Dear Mr Smith	None
Signature	Printed in blue ink	Photocopied in black

² Each survey ‘package’ consisted of an A4-size questionnaire, covering letter and reply paid envelope, plus an addressed cover sheet, which acted as the outer envelope. The whole package was shrink-wrapped in clear cellophane.

Figure 3.2 Covering Letter Used in Personalisation Study

 **Massey University**
COLLEGE OF BUSINESS

Department of Marketing
Private Bag 11 222,
Palmerston North,
New Zealand
Telephone: 64 6 350 5533
Facsimile: 64 6 350 2260

Inside
name and
address → Mrs Beverley Ashurst
63 Rayner Road
HUNTLY 2191

Day date → 6 September 2000

Salutation → Dear Mrs Ashurst

NEW ZEALANDERS AND THE ENVIRONMENT

Massey University is a member of the International Social Survey Programme (ISSP). Each year the 32 countries in the ISSP carry out a survey on a topic of interest, using a common questionnaire. The countries share the information collected and use it to compare the attitudes and values of people in different parts of the world. This year the topic is the environment.


I am writing to you to ask for your help in this international programme. Enclosed is a copy of this year's ISSP questionnaire, which I would be grateful if you would answer and return in the envelope provided (there is no need to put a stamp on it).

You may be wondering how you were chosen for the survey. I took a random sample of names from the electoral rolls and your name was one of those selected. However, all your answers will be completely confidential. The number on the questionnaire is to allow me to cross your name off once you have returned your questionnaire and ensure that I don't send you a reminder.

If you would like a summary of the results of the survey, please fill in the panel on the inside cover of the questionnaire (to make sure we have your address correct). The summary will be sent to you early next year.

Thank you for your help. I look forward to receiving your completed questionnaire as soon as possible.

Yours sincerely,

Signature
in blue ink → 

P J Gendall
Professor of Marketing

PS If you have any questions about the survey or would like to talk about it, please phone me on (06) 350 5582 or email me at p.gendall@massey.ac.nz.

Te Kōwhiri ki Pūrehuroa

Inception to Infinity: Massey University's commitment to learning as a life-long journey

The nonpersonalised control was the covering letter normally used in mail surveys conducted by the Department of Marketing at Massey University for the ISSP. The nonpersonalised nature of this letter was a product of times when the surveys were processed by hand and personalisation of large-scale mail surveys such as the ISSP was more difficult than it is now. The letter had no inside name and address, which meant that there was no need to match a particular letter with a particular questionnaire or outer envelope, and the signature was photocopied. The letter could have included a general salutation (e.g., 'Dear respondent') but, as this seemed to draw attention to the fact that the letter was not personalised, it was omitted. To increase flexibility in the timing of surveys, the letter included a month and year date, but not a specific day date. Thus, while the ISSP survey covering letters incorporated all the other elements Dillman (2000) suggests are important, they were not personalised.

3.4 Results: Personalisation Experiment

The response rates for the personalised and nonpersonalised covering letters were identical (62%). Personalisation had no effect on response to the survey (see Table 3.2).

Table 3.2 Response Rates for Personalised and Nonpersonalised Covering Letters

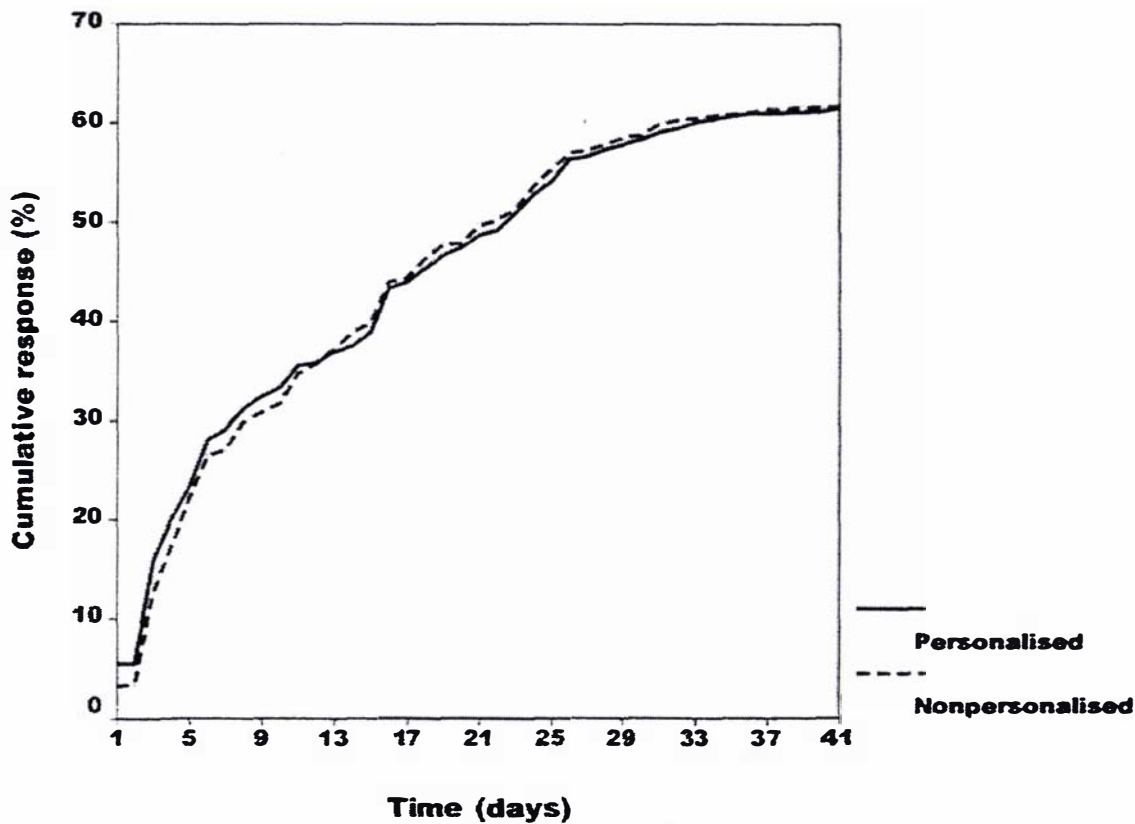
Outcome	Covering Letter	
	Personalised	Nonpersonalised
Valid	558	550
Gone-no-address	72	91
Ineligible	22	19
Refused	26	26
Not returned	322	314
Total	1000	1000
Response Rate (%)	61.6	61.8

Note. Response rate = (Valid – (GNA+Ineligible))/Total

The cumulative response rates for the personalised and nonpersonalised treatments are shown in Figure 3.3. Response to the personalised letter was marginally quicker than to the

nonpersonalised letter. After seven days the cumulative response to the personalised treatment was 2% higher than to the nonpersonalised treatment (29% vs 27%); however, this difference had disappeared after 12 days and thereafter the cumulative response for the two treatments was virtually identical. Consequently, personalisation appears to have had little effect on response speed.

Figure 3.3 Cumulative Response Rates: Personalised vs Nonpersonalised Covering Letters



To test the effect of personalisation on item omission within returned questionnaires, the proportions of missing cases for 12 variables in the Environment survey were analysed. The variables selected for analysis were a set of ‘personal’ variables (mainly demographics). If personalisation did have an effect on item omission, these are the types of variables that would be expected to be affected.

Of the 12 variables examined, seven had a higher proportion of missing cases for the personalised treatment, four had more missing cases for the nonpersonalised treatment, and for one of the variables there was no difference (see Table 3.3). The maximum difference was 1.4 percentage points and the absolute average difference only 0.5%. On the basis of this analysis there is no evidence that personalisation reduces (or increases) the proportion of missing items in returned questionnaires.

Table 3.3 Proportion of Missing Cases: Personalised vs Nonpersonalised Covering Letters

Variable	Proportion of Missing Cases (%)		
	Personalised (n=558)	Non- personalised (n=550)	Difference
Personal income	6.2	5.8	0.4
Voting behaviour	4.8	4.6	0.2
Social class	3.4	3.5	-0.1
Hours worked per week	2.1	3.1	-1.0
Household size	2.0	2.6	-0.6
Religion	2.1	1.3	0.8
Age	1.6	0.2	1.4
Marital Status	1.4	0.7	0.7
Trade union membership	0.9	1.3	-0.4
Education	1.4	1.1	0.3
Sex	0.4	0	0.4
Computer use ¹	1.1	1.1	0
Average	2.3	2.1	0.1

Note: 1. This was an optional question.

To examine the effect of personalisation on social desirability bias, the 12 questions in the Environment survey that seemed most likely to be susceptible to this source of error were selected and the responses of the alternative treatment groups to these questions compared. Mean scores for each treatment group for each question are shown in Table 3.4.

Table 3.4 Mean Scores for Socially Desirable Questions: Personalised vs Nonpersonalised Covering Letters

Questions	Mean Score		Significance of χ^2
	Personalised Letter	Non-personalised Letter	
To protect the environment, how willing would you be to:			
pay much higher prices ¹	2.8	2.9	.03
pay much higher taxes ¹	3.3	3.4	.17
accept cuts in your standard of living ¹	3.2	3.3	.62
It is just too difficult for someone like me to do much about the environment ^{2,6}	3.6	3.6	
I do what is right for the environment, even when it costs more money or takes more time ²	2.5	2.6	.29
How concerned are you personally about the environment ³	1.9	1.9	
How often do you make a special effort to sort glass or tins or plastic or newspapers and so on for recycling ⁴	1.9	2.0	.15
How often do you cut back on driving your car for environmental reasons ⁴	3.3	3.4	.04
Are you a member of a group whose main aim is to preserve or protect the environment ⁵	1.9	1.9	
In the last five years, have you:			
signed a petition about an environmental issue ⁵	1.5	1.6	.16
given money to an environmental group ⁵	1.7	1.7	
taken part in a protest or demonstration about an environmental issue ⁵	2.0	2.0	

Note:

1. Where 1 = Very willing; 5 = Very unwilling.
2. Where 1 = Strongly agree; 5 = Strongly disagree
3. Where 1 = A great deal; 4 = Not at all.
4. Where 1 = Always; 4 = Never
5. Where 1 = Yes; 2 = No.
6. Higher score denotes more socially desirable.

There is some weak evidence that personalisation may increase social desirability bias. For six of the 12 variables examined the difference in mean scores in Table 3.4 is in the direction expected if the personalised approach produced more socially desirable answers. However, the differences are very small and only two of the six are significant. Four of the six differences are for attitude-type variables and only two for (self-reported) behavioural variables. This suggests that, if personalisation does increase social desirability bias, it may have more effect on variables that attempt to measure attitudes than on those that attempt to measure behaviour. However, this is speculation and the overall conclusion is that, in this case at least, personalisation had little or no effect on social desirability bias.

3.5 Discussion: Personalisation Experiment

The 95% confidence interval for the difference between the personalised and nonpersonalised treatments tested is $-4.5\% < p_1 - p_2 < 4.1\%$, thus the possibility that personalisation might increase mail survey response cannot be discounted, even though there was no evidence of such an effect. The power of the study for an effect size of 5%, the lower end of the expected effect size range suggested by Dillman (2000), is between .71 and .73 (depending on the response rate expected for the control treatment). That is, despite the relatively large sample sizes involved, the power of the study, the probability of detecting an effect, is a little lower than desirable.

There was relatively little difference between the two letters tested in this study, though one was certainly more 'personalised' than the other. Given the argument advanced by Taylor and Lynn (1996) about the way in which members of the general public now perceive 'personalised' mail, there may have been little or no difference between the letters in the eyes of potential respondents. Consequently, the fact that there was no difference in response to the two letters is probably not surprising.

However, the personalised letter tested did not have the 'real signature in contrasting ink' recommended by Dillman (instead it had a copied signature in contrasting blue ink). While it is possible to hand sign 2000 covering letters (plus reminders) this is not practical or cost-

effective for large-scale mail surveys. Furthermore, the efficacy of a handwritten signature is not supported by the results of previous studies (see Carpenter, 1974; Kawash & Aleamoni, 1971; Green & Stager, 1986). In fact, though Dillman recommends a 'pressed blue ball-point pen signature', he concedes this may not be a realistic alternative in large surveys and suggests that a preprinted signature in a contrasting colour is an acceptable substitute. It is hard to imagine that, by itself, this feature would significantly improve the response to a mail survey, nevertheless, it is a possibility that cannot be completely excluded.

Some studies have shown interaction effects of personalisation with other factors, such as prenotification (see; de Leeuw & Hox, 1988; Matteson, 1974; Sutton & Zeits, 1992). However, the evidence of interaction effects is mixed and mostly non-existent. In this particular experiment a prenotification letter was sent to all respondents, but there was no evidence of any interaction between personalisation and prenotification. Similarly, it is also possible that personalisation may be effective for different survey populations, with different survey sponsors, or for different survey topics, but this cannot be determined from the experiment reported here.

On the question of salutations, Gordon notes that the word 'dear' in the opening formula of a letter means absolutely nothing (Gordon, 1977, p. 70). 'Dear' in a letter's salutation has become what linguists call 'frozen'. In certain contexts it can still carry connotations of love, respect and regard, but as the opening word of a letter it now seldom conveys anything about the writer's attitude to the recipient. It has simply become part of a meaningless and non-intimate letter opening formula.

Thus, the assumption that a personal salutation is more intimate and friendly than no salutation at all may be over-emphasised by those who argue for personalisation in mail survey covering letters. There is also the problem that it is often impossible to determine gender from a name. For women in particular, it is increasingly difficult determine the appropriate salutation (Mrs, Ms, or Miss?). Consequently, even Dillman suggests that the

salutation should be omitted from a covering letter when there is a risk of offending the recipient (Dillman, 2000, p.160).

Finally, the level of personalisation tested in this study could best be described as 'quasi-personalisation', or 'personalisation through technology'; in other words, personalisation that recognises the individuality of survey respondents but does not establish a personal link between the researcher and the respondent. However, in surveys of the general public (or in other groups where there is no prior relationship between researcher and respondent) any attempt to be more personal than the approach tested in this study would mean adopting a level of intimacy that some people would find unacceptable (e.g., 'Dear Phil').

Despite this, there are situations one can imagine where what might be called intimate personalisation would be appropriate and possibly effective. For example, a survey of members of a club or association where the covering letter is signed by the president, a survey of employees in an organisation where the covering letter is signed by the manager, or a survey of regular customers of a small business where the letter is signed by the owner. This is consistent with Harvey's conclusion that the advantages of personalisation are heavily dependent on the target population and the aims of the survey (Harvey, 1987). But the circumstances that make personalisation seem likely to be beneficial in these cases do not apply to surveys of the general public conducted by a university researcher.

3.6 Conclusions

The conclusion from this study is that, in mail surveys of the general public, personalisation of an otherwise appropriate covering letter has little or no effect on response rate, response speed, item-nonresponse, or social desirability bias. This is contrary to the findings of a number of previous studies, at least as far as the effect of personalisation on response rates is concerned. However, this is, of course, simply a single study, which may have failed to detect the effect of personalisation.

In this case, this survey sponsor was a well-known university in a small country, a sponsor that would have been familiar to virtually every respondent. This may explain the lack of any personalisation effect and would be consistent with the notion that personalisation, like all elements of mail survey research design, may be more or less relevant in a particular situation (the features of which include the survey population, topic and sponsor).

Finally, with the survey processing technology now available (and used in this study) it is actually more difficult not to personalise survey correspondence than to personalise it. Thus, from a practical point of view, unless there is a good reason to avoid personalisation, survey researchers should use it. At worst, it will have no effect, but it may well have a positive effect.

4. THE EFFECT OF COMPLEXITY AND CONTRAST IN QUESTIONNAIRE COVER DESIGN

4.1 Introduction

All mail survey questionnaires have a cover. Occasionally this is simply the first page of the questionnaire, but usually a decision has to be made about what the cover of a self-completion questionnaire should look like. Intuitively, an attractive cover design should enhance the response to a mail survey, but beyond this there is little guidance available to researchers about what constitutes a 'good' questionnaire cover.

Dillman (1978) suggested that prominent graphic designs on questionnaire covers encourage their recipients to respond. Jenkins and Ciochetto (1993) supported this view in a small exploratory study from which they concluded that subjects were overwhelmingly drawn to a cover page containing a picture (in this case, an icon of an apple sitting on a pile of books).

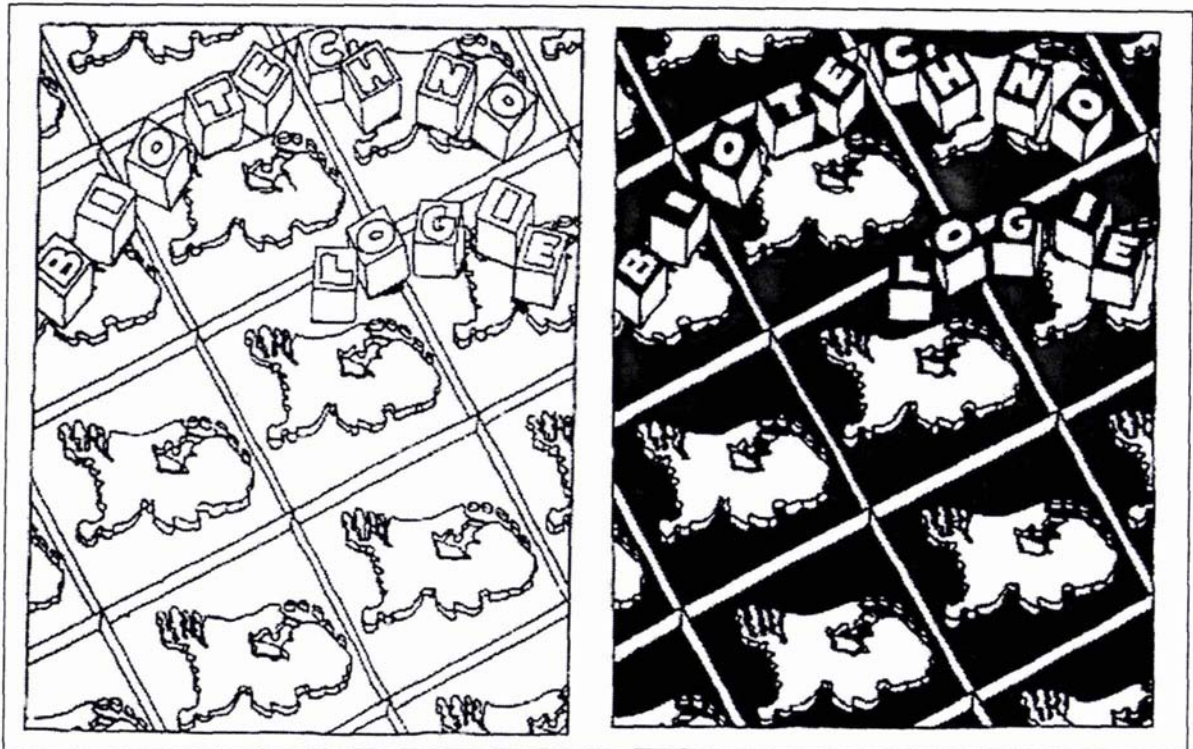
This support for the use of graphic designs on questionnaire covers falls far short of a generalisable theory researchers could use to design effective covers. However, in a mail survey of Dutch biotechnologists, Nederhof (1988) found that a questionnaire with a largely black contrastive front cover produced an 11% higher response rate than an alternative version of the same cover that was predominantly white and barely contrastive. The two cover designs tested by Nederhof are shown in Figure 4.1.

Nederhof's explanation for this result was that the black questionnaire was more distinctive and visually complex, and, consequently, more memorable. He argued that potential respondents who had set the questionnaire aside after receiving it would recall it more easily when prompted by a reminder, because of its enhanced longer term cognitive accessibility. This, in turn, would increase the likelihood of the questionnaire ultimately being completed and returned.

The significance of this enhanced cognitive accessibility was supported by the fact that the white covers performed at least as well as the black covers early in the survey, but did

significantly worse after the fourth wave when reminder techniques (postcards and telephone calls) that did not include a copy of the questionnaire, were used. Thus it appears that the response rate for a self-administered questionnaire may be enhanced if the cover of the questionnaire contains a picture and, furthermore, that the more distinctive and complex the cover design created, the stronger this effect is likely to be.

Figure 4.1 Cover Designs Used by Nederhof



Source: Nederhof, 1988.

However, attempts by Dillman and Dillman (1995) to replicate Nederhof's research using different cover designs were unsuccessful. Dillman and Dillman tested a range of cover designs including simple text versions, white dominant and black dominant graphic designs (to emulate Nederhof's experiment), and four-colour versions of the same graphic designs. But their results provided little or no support for Nederhof's theory. The black cover produced a higher response in one experiment (60% vs 57%), while the white cover was

more effective in the other (47% vs 40%), though neither of the differences was statistically significant

Nevertheless, Dillman and Dillman conceded the possibility that their conceptual replication of Nederhof's covers was sufficiently different to affect the memorability of the covers tested in their experiments. Furthermore, the effect observed in Nederhof's study was very strong. It seemed premature, therefore, to reject Nederhof's conclusions simply because Dillman and Dillman found no support for them.

Thus an experiment was designed to examine further Nederhof's theory of the influence of questionnaire cover design on the response to a mail survey, and, specifically, to test the effect of complexity of graphic design and the presence or absence of images.

4.2 Method: Complex Cover Designs Experiment

The vehicle for this research was the 1994 International Social Survey Programme survey on the family and changing gender roles. In September 1994, a questionnaire, covering letter on university letterhead, and reply-paid envelope were sent to 1762 New Zealanders aged 18 and over. The sample was selected systematically from the New Zealand Electoral Rolls, with the number of names selected from each electorate proportional to the size of the electorate. The sample was randomly allocated to six groups, each containing approximately 280 potential respondents. Each of these groups received a questionnaire with a different cover.

The covers tested varied in terms of complexity of graphic design, the use of colour, and the presence or absence of images, but all were printed on the same beige card. The experimental design involved three 'pairs' of covers. The first pair consisted of one cover with only a simple graphic design in black lettering, and the same cover, but with a picture included. The second and third pairs of covers consisted of more complex, but different graphic designs in black and red lettering, with one cover in each pair incorporating

photographs. This experimental design is illustrated in Figure 4.2 and the questionnaire cover designs are shown in Figure 4.3.

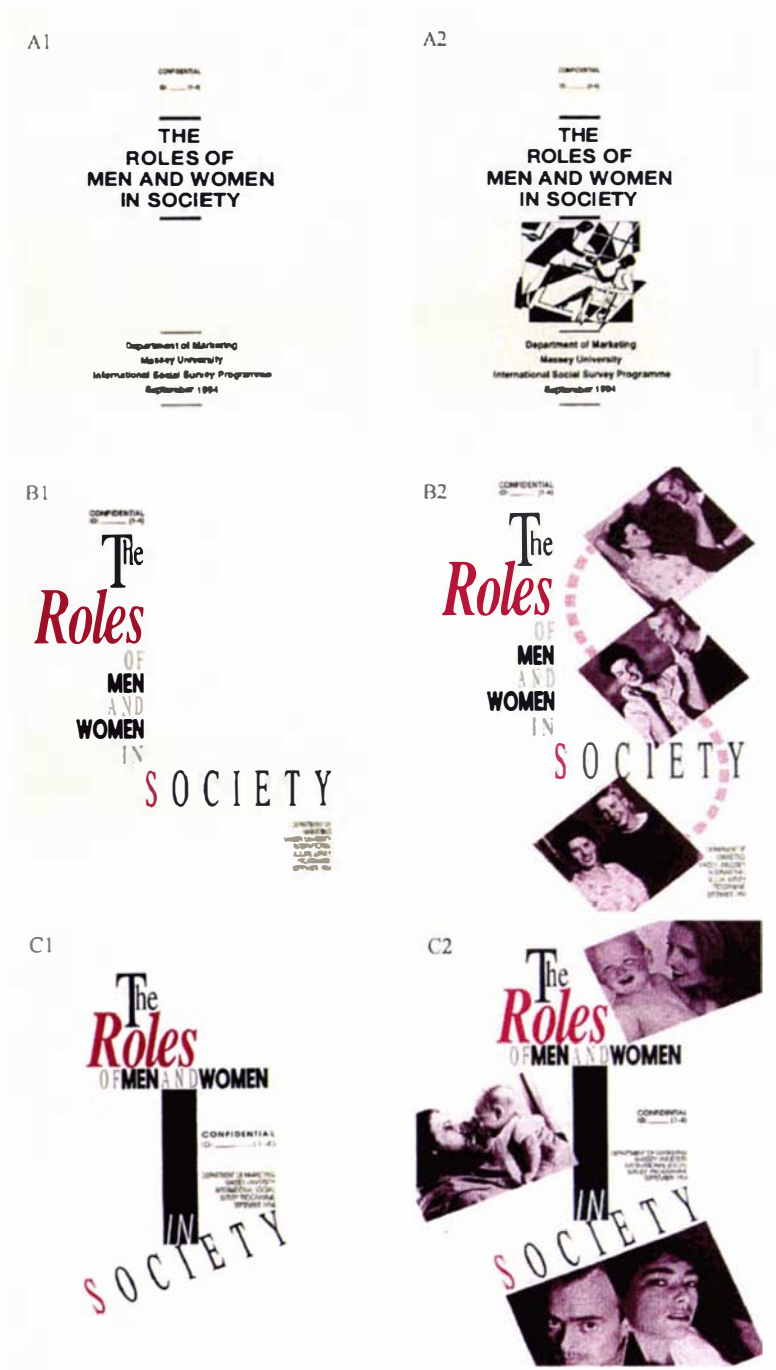
Figure 4.2 Experimental Design for Complex Cover Designs Experiment

Cover A1 Simple graphic design Black lettering only No pictures or photos	Cover A2 Simple graphic design Black lettering only Picture included
Cover B1 More complex design Black and red lettering No picture or photos	Cover B2 More complex design Black and red lettering Photos included
Cover C1 Different complex design Black and red lettering No picture or photos	Cover C2 Different complex design Black and red lettering Photos included

The questionnaire itself comprised 20 pages and 67 questions (though the total number of individual question items totalled 113). It sought respondents' opinions, behaviour and knowledge on a range of issues concerning the roles of men and women in marriage, at work, and in society in general. It also included an extensive demographic section.

A reminder letter was sent to all non-respondents four weeks after the initial mailing. A second reminder was sent to all remaining non-respondents four weeks later. Questionnaires were not included with either reminder. After a further four weeks a total of 1236 questionnaires had been returned. Eighty-two respondents refused to take part in the survey, 26 had died or were otherwise ineligible, and 152 questionnaires were returned 'Gone no address'. This left 976 valid responses, representing a response rate of $[976/(1762-178)] \times 100 = 65.3\%$.

Figure 4.3 Cover Designs Tested in Complexity Experiment



Note: Though the official title of the ISSP module was "The family and changing gender roles", in New Zealand the title used on the survey questionnaires was "The roles of men and women in society". The latter was considered a more appropriate title for a survey of the general public.

4.3 Results: Complex Cover Designs Experiment

At the end of 12 weeks, response rates for the six treatment groups ranged from 62% to 67% (see Table 4.1. Full response details are given in Appendix B).

Table 4.1 Response Rates for Cover Designs Tested in Roles of Men and Women Survey

Design Complexity	Response Rate ¹			
	No Picture or Photos (1)		Picture or Photos Included (2)	
	n	%	n	%
Simple A	168	65.9	161	67.4
Complex B	165	64.5	169	66.3
Complex C	166	66.4	147	61.5

Note: 1. Response rates adjusted for ‘Gone-no-address’ and ineligible responses.

There is only weak evidence in these results that the inclusion of a picture or photos in a questionnaire cover increases the response to a mail survey. In two pairs of questionnaires the version including a picture or a photo had a higher response. However, the increases were less than 2% and were not significant. For the other pair of questionnaires, the cover with no picture or photo achieved the highest response. Overall, the response rate for the three questionnaires without images was 65.6%, compared with 65.1% for those that included either a picture or photos (but the latter response rate is depressed by the very poor response to the second complex cover with photos included).

Similarly, there is little evidence that increased complexity or distinctiveness increases mail survey response rates. Overall, the response rate for the simple design was 66.6%, compared with 65.4% and 64.0% for the two more complex designs. Furthermore, the response achieved by the simplest design was virtually the same as that for the most successful of the more complex designs, and better than for two of them.

However, Nederhof’s (1988) theory of the cognitive accessibility of questionnaires suggests that more distinctive and visually complex questionnaires should produce higher response

rates in the later phases of a mail survey, particularly if reminders are not accompanied by another questionnaire. The response rates for the three waves of this survey are shown in Table 4.2.

Table 4.2 Response Rates by Wave

Cover Design	Response Rate ¹ %					
	Initial Posting		First Reminder		Second Reminder	
	n	%	n	%	n	%
Simple graphic (A1)	123	43.0	43	31.9	12	13.5
Simple graphic plus picture (A2)	111	44.4	37	29.4	13	16.5
Complex graphic (B1)	114	42.9	39	27.9	12	13.0
Complex graphic plus photos (B2)	126	47.6	35	27.6	8	9.1
Complex graphic (C1)	118	45.7	41	32.0	7	8.8
Complex graphic plus photos (C2)	110	43.8	26	20.8	11	11.3
Total	692	44.6	221	28.3	63	12.3

Note: 1. Adjusted for 'Gone-no-address' and ineligible responses, and based on number of letters sent in each wave.

If Nederhof's theory were correct, the more complex cover designs would be expected to produce higher response rates in the second and third waves. This is not what happened. In fact, the simplest (and, by assumption, the least memorable) covers had the highest response to both the first and second reminder letters.

However, examination of first-wave responses alone shows that the addition of a picture to the simple graphic design increased the response rate by 1.4%, and the inclusion of photos increased the response to one of the complex designs by 4.7% (in the third pair of covers, the effect of photos was to decrease the response rate by just under 2%.) This provides some support for Jenkins and Ciochetto's conclusions. But, overall, the three questionnaires without images performed better in the second and third waves, so that by the end of the survey the positive differences in favour of images, observed at the end of the first wave, had virtually disappeared and the other difference had increased.

Despite these results, it is possible that the cover designs tested had differential effects on the responses of men and women or of those in different age groups. For example, a particular cover design could have achieved a high response rate among younger people and a low response rate among older people, but these effects could have been disguised in the overall response rate. However, as Table 4.3 shows, there was no significant relationship between age or sex and response to the alternative cover designs.

Table 4.3 Sex and Age Distributions by Cover Design

Cover Design	Sex		Age Group				
	Male	Female	Under 30	30-39	40-49	50-65	Over 65
	%	%	%	%	%	%	%
A1	41.6	58.4	19.4	20.6	21.3	24.4	14.4
A2	38.0	62.0	15.8	24.1	19.6	25.9	14.6
B1	41.7	58.3	21.0	23.5	17.9	19.8	17.9
B2	40.4	59.6	17.5	19.9	26.5	23.5	12.7
C1	43.5	56.5	17.5	20.6	21.9	27.5	12.5
C2	39.7	60.3	18.5	24.0	18.5	24.7	14.4
Total	40.8	59.2	18.4	22.1	21.0	24.3	14.4

Note: 1. For cover design by sex, $\chi^2 = 1.18, d.f. = 5, p = .95$.
2. For cover design by age group, $\chi^2 = 10.92, d.f. = 20, p = .95$.

In an attempt to gain some insight into respondents' reactions to the covers tested, three focus groups were subsequently conducted with convenience samples of potential respondents. Participants were 13 men and 15 women between the ages of 18 and 50, recruited from local community organisations.

For each group, participants were first asked to read a copy of the covering letter used in the survey. Then they were each given a complete set of the six alternative covers and asked to select the cover they considered would be most effective and least effective in motivating them to complete and return a questionnaire on the topic concerned, and to explain why. Table 4.4 shows the outcome of this process.

Table 4.4 Participants' Assessment of Most Effective and Least Effective Covers

Cover Design	Most Effective Cover	Least Effective Cover
Simple graphic (A1)	3	16
Simple graphic plus picture (A2)	6	0
Complex graphic (B1)	5	3
Complex graphic plus photos (B2)	3	4
Complex graphic (C1)	2	1
Complex graphic plus photos (C2)	9	4

Ironically, the cover judged to be most effective by the highest number of focus group participants (cover C2) was the least effective in practice. Conversely, the simplest cover (A1) was clearly rated as least effective in the focus groups but performed as well in the field as any of the other alternatives.¹ These results are based only on a small convenience sample, but they suggest that either potential respondents are not good judges of what constitutes an effective questionnaire cover design, or that the cover of a questionnaire is not particularly important (provided the rest of the survey package is well designed and presented).

However, the focus groups confirmed that the cover designs assumed to be more distinctive and complex were in fact perceived in this way by potential respondents. This could be deduced by the comments made about the alternative covers. For example, cover A1 was described as "Simple and to the point", "Straightforward, no frills", and "Nice and plain", whereas comments about covers B2 and C2 included references to them being "Very busy", "Cluttered" and "Eyecatching". Though two of these latter three comments are negative, they support the contention that these cover designs were perceived as more distinctive and complex than the others tested.

1. Reasons given for selecting cover C2 as most effective were its interesting layout and use of relevant photos to capture attention and emphasise the different roles of men and women in society. Reasons for selecting cover A1 as least effective were that it was dull, bland, and boring, too impersonal and too official.

4.4 Discussion: Complex Cover Designs Experiment

This study was designed to test the hypothesis that the response rate for a mail survey will be increased if the cover of the questionnaire contains a picture, and that the more distinctive and complex the cover design created, the stronger this effect will be. The results suggest that, while the use of photos or pictures may marginally increase response rates, the effect is not guaranteed and may even be negative. Similarly, there is little or no evidence in this study to support Nederhof's theory that a more distinctive, complex questionnaire cover design is better than a simple one.

However, as Dillman and Dillman (1995) point out, 'retrievability', and hence the effect of questionnaire cover design, may be different for different populations. Nederhof (1988) surveyed biotechnologists at work, whereas those surveyed in both Dillman and Dillman's study and in this study were members of the general public, contacted at home. Perhaps memorability of questionnaire cover design is more important in situations where respondents are dealing with considerable paperwork, as would be the case for Nederhof's biotechnologists.

Even if this is so, it does not necessarily mean that questionnaire cover design is unimportant in surveys of the general public. The difference in response rates between the most successful and least successful of the six covers tested was nearly 6%, a non-trivial difference. Unfortunately, such a difference cannot be achieved simply by including a picture on the cover of a questionnaire or by increasing the distinctiveness or complexity of the cover design. Such measures may increase the response rate, but their effect is not predictable.

From a practical point of view, this study suggests that a clear, simple, well-balanced cover design is likely to be as effective as a more elaborate one, at least for surveys of the general public. The addition of a relevant graphic appears unlikely to decrease the effectiveness of a questionnaire and may increase it, so there seems little to lose from doing this, if it can be done easily, and potentially something to gain. The wisdom of using complex cover designs and designs that include photos seems more doubtful. Photos, in particular, have

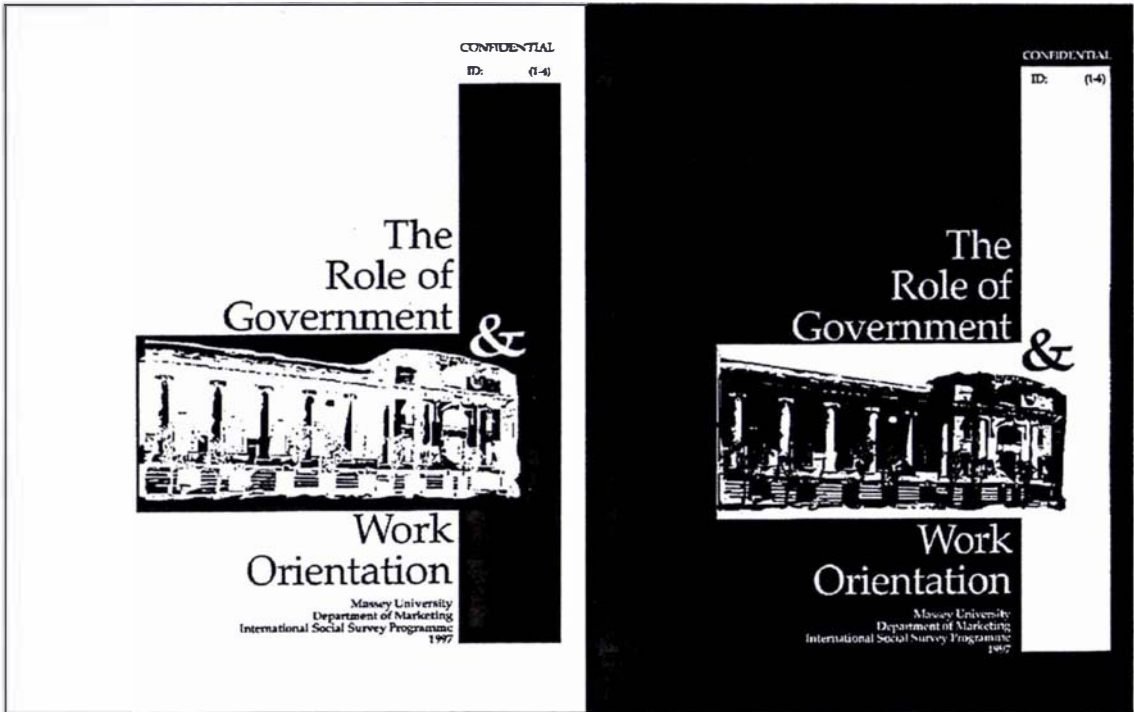
the potential to create unpredictable and sometimes undesirable images in the minds of respondents, and, for this reason, this study suggests it is better to avoid them.

4.5 Contrast in Questionnaire Cover Design

Attempts by Dillman and Dillman (1995) and the study reported in this chapter to replicate Nederhof's (1988) research using different cover designs found no support for his conclusion that more complex and visually distinctive cover designs are more effective. One possible explanation for this failure to reproduce the effect Nederhof observed is that the phenomenon he studied was contrast rather than complexity. The visual elements of design perceived by the eye are brightness (or contrast) and colour, shape, and location (Glass & Holyoak, 1986), and it appears that Nederhof was using the word 'complex' to describe a high degree of contrast.

To test the proposition that contrast, rather than complexity, is the key determinant of an effective mail survey cover design another study was conducted. The study compared two cover designs, one low contrast, the other high contrast, based on an image of the New Zealand parliament building. The covers were tested in a mail survey on the role of government and work orientation (referred to as the 'Role of Government' survey), sent in 1997 to two systematic random samples of 945 New Zealanders, selected from the electoral rolls. A questionnaire was included with each of two reminder letters sent to non-respondents. The cover designs tested are shown in Figure 4.4.

Figure 4.4 **Cover Designs Tested in Role of Government Survey**



The response rates for the two covers were virtually identical: 71.2% for the low contrast, mainly white cover; 71.5% for the high contrast, mainly black cover. Response rate details are shown in Table 4.5.

Table 4.5 **Response Rates for Low and High Contrast Cover Designs**

Outcome	Cover Design	
	Mainly White	Mainly Black
Valid	602	603
Gone-no-address	75	77
Ineligible	23	25
Refused	38	50
Not returned	206	191
Total	944	946
Response Rate (%)	71.2	71.5

Note. Response rate = [Valid – (GNA + Ineligible)]/Total.

This study, together with the previous evidence, suggests that contrast in cover design has no significant effect on mail survey response rates, at least not when a questionnaire accompanies each reminder. However, Nederhof concluded that cover design affects response rate when reminder mailings do not include a copy of the questionnaire. If Nederhof is correct, it may be possible to reduce mail survey costs without reducing response rates by using highly contrastive questionnaire cover designs with postcards or reminder letters only.

To examine this possibility a further study was designed, to test the effect of contrast in questionnaire cover design on the response to a mail survey when questionnaires are not included with reminder letters. The study also examined the cost implications for mail surveys of using postcards and reminder letters only instead of the normal practice of sending a new questionnaire with each reminder.

4.6 Method: Contrast in Cover Designs Experiment Two

The vehicle for this research was a mail survey on shopping in New Zealand. In June 1998, a questionnaire, covering letter on Massey University letterhead, and reply-paid envelope were sent to 2119 New Zealand shoppers aged 20 and over. The sample was selected systematically from the New Zealand Electoral Roll, with the number of names selected from each electorate proportional to the size of the electorate. At each address the first woman's name was selected; if the household did not contain any women, the first man's name was selected.

The sample was randomly allocated to two groups, each containing approximately 1060 respondents. Each group received a questionnaire with a different cover, either a low contrast cover with a high proportion of white space, or a high contrast cover with a high proportion of black space. These two cover designs are shown in Figure 4.5.

Figure 4.5 Cover Designs Tested in Shopping in New Zealand Survey



Two reminders were sent to non-respondents at approximately two-week intervals after the initial mailing. For each cover design three different reminders were tested: a covering letter, reply-paid envelope and another copy of the questionnaire; a reminder letter on its own; and a postcard reminder, backed with the appropriate cover design. The survey produced 1210 valid responses and 264 questionnaires returned 'Gone no address'; 25 respondents refused to participate and 38 were ineligible (for example, had died or gone overseas). This represents an overall response rate of $(1210/2119 - 302) = 66.5\%$.

4.7 Results: Contrast in Cover Design Experiment Two

As expected, there was no significant difference between the response rates for the ‘white’ covers (40.6%) and the ‘black’ covers (42.0%) in the first wave of the survey (though the black, high contrast cover did produce a slightly higher response). This confirms both Nederhof’s experience and the research reported in Section 4.5, which concluded that a

contrastive cover design had no significant effect on response rates when a questionnaire is present.

If Nederhof's theory is correct, the highly contrastive black cover design would be expected to produce a higher response rate than the less contrastive white cover design, but only in the treatments that did not include a questionnaire with each reminder. Furthermore, the reminder postcards should be more effective than the covering letters on their own because the former should enhance the cognitive accessibility of the original questionnaire.

Table 4.6 shows the response rates for the second and third waves of the survey combined.

Table 4.6 Second and Third Wave Response Rates

	Reminder Treatment and Cover Design					
	Questionnaire		Letter		Postcard	
	Black (n=190)	White (n=197)	Black (n=193)	White (n=190)	Black (n=179)	White (n=188)
	%	%	%	%	%	%
Response rate	46.2	47.7	39.8	35.5	36.5	36.6
Difference (Black-White)	- 1.5		4.3 ns		- 0.1	

Note: Complete response rate details are given in Appendix C.

The results shown in Table 4.6 provide very weak support for Nederhof's theory. With a reminder letter only, 39.8% of the sample that had previously received a black-covered questionnaire responded, compared with 35.5% of those who had previously received a white-covered questionnaire. However, this difference of 4.3% in favour of the black covers is not statistically significant and could easily have occurred by chance ($t = 0.87$).

Contrary to expectations, there was no evidence that the reminder postcards were more effective than a reminder letter on its own. However, the efficacy of including another copy of the questionnaire with each reminder was clearly demonstrated. In the second and third waves, the reminder treatments that included a questionnaire achieved a response rate

of 47%, compared with around 37% for either the letter only or postcard reminders. This 10% difference is significant at the 5% level.

Over the whole survey the effect of including a questionnaire with each reminder is not so dramatic, because, in this case, the response to the initial posting was already 41%. Nevertheless, if a questionnaire had been included with every reminder, the overall response rate for the survey would have been approximately 70%, an increase of 3.5% over the actual response rate achieved.

Thus, if cost is not an issue, the most effective policy is to include a questionnaire in every wave of a mail survey. However, this is not necessarily the most cost-effective approach, as the figures in Table 4.7 demonstrate.

For this particular survey, the questionnaire was an A4 booklet comprising 20 pages, with a glossy cover. A complete survey package consisted of a questionnaire, covering letter, A4 white outer envelope and an A4 manila reply-paid envelope. As Table 4.7 shows, the reminder letter only and postcard reminder treatments were approximately \$150 per 100 sample units less expensive than the treatment that included a questionnaire with each reminder.

The main determinants of this cost difference are the cost of questionnaires and envelopes, postage and labour. The inclusion of a questionnaire with each reminder not only increases the number of questionnaires required, it also increases envelope costs and postage costs (the latter because all postage is at 80 cents rather than the 40 cents required for letters or postcards) and labour costs (because it takes longer to process the survey). Furthermore, this treatment is more expensive because it produces more responses that have to be paid for. In fact, the costs shown in Table 4.7 probably underestimate the additional cost of including a questionnaire with each reminder for a survey of this sort. Typically, the response to the initial posting is less than 40%, in which case the cost of the questionnaire with every wave treatment would be higher than for this particular survey.

Table 4.7 Relative Survey Treatment Costs

Item	Reminder Treatment		
	Questionnaire	Letter Only	Postcard
	\$	\$	\$
Questionnaires ¹	1318	704	705
Covering Letters ²	158	161	85
Labels ³	54	55	54
Envelopes ⁴	440	278	236
Postcards ⁵	-	-	125
Postage Out ⁶	1054	819	816
Postage In ⁶	297	273	289
Sub total	3321	2290	2310
Labour @ \$15/hour	231	200	123
Total cost	3552	2490	2433
Cost/100 sample units	504	354	345
Cost/% response ⁸	51	39	37

Note:

1. Questionnaire \$1 each (cover design and printing).
2. Covering letters 12 cents each (letterhead plus printing).
3. Labels \$40/1000.
4. Envelopes – A4 white 20 cents each, A4 manila 13.4 cents each, banker 7 cents each (cost of envelopes plus overprinting).
5. Postcards 20 cents each (design and printing).
6. A4 envelope postage 80¢, banker envelopes and postcards postage 40¢, return postage 71¢.
7. Labour costs based on 70 minutes/100 survey packages prepared for the questionnaire treatment, 50 minutes/100, reminder letters only, and 15 minutes/100 postcards.
8. Based on 70% response rate for questionnaire treatment, 64% for reminder letters only and 65% for postcards.

There was relatively little difference in the cost of the letter-only and postcard treatments; virtually no difference at all, if labour costs are ignored. Postcards are very quick and easy to process, requiring only an address label to be attached (see Appendix C for a copy of the postcards used). Consequently, even if they are more expensive to print than a covering letter plus an envelope, they may be less expensive overall if labour costs are more than about \$10 an hour.

However, the relative costs of alternative survey methods also need to be compared with the response rates achieved. The cost of each percent of response for the questionnaire

treatment was approximately \$50, compared with between \$37 and \$39 per percentage point for the postcard and letter-only treatments, respectively (see Table 4.7). By this measure the reminder treatments without a questionnaire were clearly more cost effective². Nevertheless, the fact remains that they were less successful overall in eliciting responses from respondents.

In practice, the relative costs of the survey methods tested in this study will depend largely on the physical size and length of the questionnaire used and on the cost of labour. The longer the questionnaire and the higher the cost of labour, the greater the relative cost of including a questionnaire with each reminder (and there is an incremental increase in cost when a questionnaire cannot be folded to fit in a banker-size envelope).

4.8 Discussion: Contrast in Cover Design Experiment Two

At best, this study provides very weak support for Nederhof's theory. There was a difference in response rates in favour of the mainly black, highly contrastive cover when a reminder letter was used without an accompanying questionnaire. However, while this difference was in the expected direction, it was small (only 4%) and non-significant. Once again, the large significant difference in response observed by Nederhof was not found. This, and the previous research that also failed to replicate Nederhof's findings, suggest that, if contrast in questionnaire cover designs does affect mail survey response rates, its effect is marginal.

The survey population for this study was members of the general public contacted in their homes, whereas Nederhof surveyed biotechnologists at their workplaces. It is possible that something about the people Nederhof surveyed or their environment explains the results of his study. Perhaps professionals whose jobs involve considerable paperwork are more

² The cost difference is even more marked if the cost of the second and third waves only is compared with the additional response produced by these waves. The figures are \$56 per % response for the questionnaire treatment and \$21 for the other two treatments.

likely to be influenced by a highly contrastive questionnaire cover design than members of the public in their daily lives.

Contrary to prior expectations, postcard reminders designed to enhance the cognitive accessibility of the original questionnaire were no more effective than covering letters, and both were significantly less effective than including a questionnaire with each reminder. The alternative reminder treatments were considerably less expensive than the normal practice of including a questionnaire with each reminder, but it is clear that a highly contrastive questionnaire cover design cannot compensate for the absence of a questionnaire when respondents receive a reminder.

Nederhof's theory relies on the assumption that questionnaires are put aside by respondents and can be retrieved later when a reminder (without a questionnaire) is received. However, it seems just as likely that many respondents will throw their questionnaires away. The study reported here attempted to allow for this by asking respondents to telephone (collect) for a replacement questionnaire, and several did. However, this places an additional demand on respondents that only the very cooperative could be expected to meet. The obvious implication is that a questionnaire should be included with every wave of a mail survey.

If the cost of a questionnaire with every wave is too expensive, there are some practical solutions. A smaller sample size may still produce a sufficiently large processing sample, given the higher response rate that can be expected when a questionnaire accompanies each reminder. Alternatively, a postcard or letter-only reminder, followed by a questionnaire reminder, will reduce costs with less effect on response rate than if none of the reminders includes a questionnaire. Or, costs can be reduced considerably by only sending a questionnaire with the initial posting. This will inevitably be at the expense of response rate, but, as this study has shown, the response rate achieved may still be acceptable.

Finally, some thought still needs to be given to the most appropriate way of measuring the cost effectiveness of different survey methods. In this study, the cost of the questionnaire

treatment was 40% higher than for the treatments that did not involve a questionnaire, for only a 5% increase in response rate. By most obvious measures the questionnaire treatment was inevitably less cost effective than either of the other alternatives tested. But this disguises the fact that cost effectiveness is only relevant if the method concerned produces an acceptable response rate. In other words, a 'cost effective' method that only produces a 30% response rate is not cost effective at all. It also fails to take into account the fact that a method that produces more responses is more expensive because it is more successful.

Brennan, Hoek, and Astridge (1991) have suggested using E , the ratio of incremental response to incremental cost, as a measure of cost effectiveness, but, like the cost per % response used in this study, this ratio suffers from the problems already alluded to. One possible solution, at least to the first problem, is to establish a minimum acceptable response rate (say 60%) and only compare cost effectiveness for methods that achieve this rate. Alternatively, cost effectiveness could be determined by calculating the cost of achieving the same processing sample. This would involve initial samples of different sizes, depending on the response rate achieved. However, in this particular study neither of these approaches would have altered the conclusions about the relative cost effectiveness of the survey methods tested.

4.9 Conclusions

Several researchers (Dillman, 1978; Nederhof, 1988; Jenkins & Ciochetto, 1993) have suggested that the use of graphic designs on questionnaire covers can influence mail survey response rates, and Nederhof (1988) has demonstrated this in practice (though only in a single survey). However, none of the studies reported in this chapter were able to reproduce the effect size detected by Nederhof or to identify a predictable relationship between questionnaire cover design and survey response.

For researchers, the evidence from these and other studies on questionnaire cover design suggests that a clear, simple, well-balanced cover design is likely to be as effective as a

more elaborate one, at least for surveys of the general public. There may be some benefit in having a distinctive questionnaire cover in mail surveys of professionals at work, but this has not been proven.

If cost is not a major consideration, including a questionnaire with every wave of a mail survey will maximise the response rate. If this policy is too expensive, a more distinctive questionnaire cover may increase the efficacy of subsequent reminders, but the evidence for this is weak.

Overall, it appears that any effect of questionnaire cover design will be marginal in a well-conducted mail survey; nevertheless, the appearance of the questionnaire inevitably contributes to the impression created by any survey package. Consequently, it would be wrong to assume that questionnaire cover design does not matter at all, or that an unattractive cover design would not affect recipients' willingness to respond.

5. THE EFFECT OF LIKEABILITY IN QUESTIONNAIRE COVER DESIGN

5.1 Introduction

The idea of using graphic design to enhance mail survey response rates is not new. In 1990 the US decennial census suffered a 10% decrease in its mail-back response rate (Dillman, Singer, Clark, & Treat, 1996). Prompted by this decline, Congress requested the Census Bureau to evaluate a 'public information design' approach to questionnaire and mailing package design as part of its US 2000 Census Test.

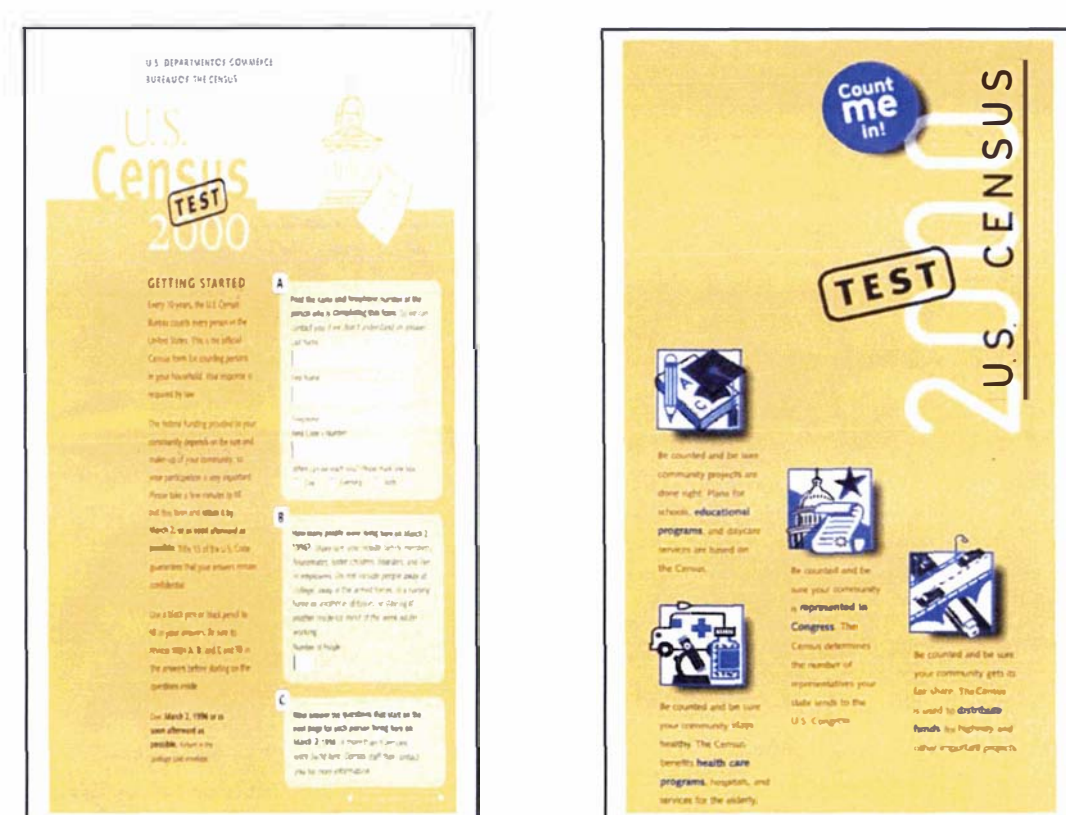
The Census Bureau commissioned a commercial contractor to design two prototype mailing packages, using colour, informational icons (symbols to replace words) and graphics to design a questionnaire and accompanying envelopes that would "allow the Federal Government to present itself with style – a style that was patriotic, contemporary, and good-looking" (Leslie 1996). The predominant colour of the two packages was gold, compared to the 'official government' approach of green questionnaires mailed in plain white envelopes.

The rationale behind this test was that using marketing tools in the form of colour and graphic design (and a coordinated slogan, "Count me in!") would produce a mail package that would be more appealing to the general public (i.e., more 'likeable'). This in turn, it was assumed, would enhance the response rate achieved. The covers of the two questionnaires tested are reproduced in Figure 5.1.

This comparison of a marketing-oriented approach, consistent with that used in private sector direct mail campaigns, and an official government approach to questionnaire and mail package design was part of a large experiment that also included tests of questionnaire length, subject content, and specific question wording, format and sequencing of items. The sample was a stratified nationwide sample of 94,500 housing units (stratified by race, Hispanic origin and housing tenure into low coverage and high coverage areas) and the test was conducted in February and March 1996.

Response rates for the two public information design approach questionnaires were 5% and 9% lower than for the official government approach control (both of these differences are significant at the 10% level)¹. However, it is impossible to draw inferences about the questionnaires themselves from this test, since the evaluation applies to the complete set of features used in the two questionnaire design approaches. For example, one explanation for the higher response rates for the official government approach is that the outgoing envelope portrayed more prominently that a response was required by law. It is possible that the response rates for the public information design questionnaires would have been higher if they had been mailed in the official government envelopes.

Figure 5.1 'Public Information Design' Cover Designs Tested in US 2000 Census Test



¹ The reasons for these decreases are not clear, but they probably include de-emphasising the mandatory message on the envelope by placing it in a circle on one envelope and in reverse print on the back of the other (Dillman 2000).

Thus the US Census 2000 Test illustrates the difficulty, first, of operationalising a concept such as 'appeal' and, second, of isolating the specific effect of questionnaire cover design on mail survey response rates.

Discussions with graphic designers suggest there are no fixed rules of questionnaire cover design. Most designers would think carefully about the target audience for the questionnaire and would choose imagery, typefaces and paper stock they believe would appeal to the target audience. The general assumption is that the type face and imagery chosen will communicate on several different levels and that the 'reading' of a cover design is a complex operation involving conscious and subconscious processes.

Designers seek on one level literal legibility – respondents have to be able to read a questionnaire cover and understand what it is – but on another level they seek to create associations between a respondent (the 'reader') and a range of emotions, feelings and ideas. Through these associations, the designer hopes the respondent will become interested in the survey and encouraged to open the questionnaire and complete it (C. Robinson, personal communication, 15 June, 2000).

However, attempts to develop a theory, or explanation, of what constitutes an effective questionnaire cover design are based on the assumption that such a goal is ultimately attainable. A different approach is to accept that this may not be possible. In other words, though we may know a 'good' cover design when we see one, we may not be able to explain how to achieve this.

Thus, rather than attempt to solve the problem of how to design an effective questionnaire cover, researchers can instead draw on the experience of advertising, which has a similar problem, but also has a solution – likeability. Regardless of how advertisements are created, there is some evidence that more likeable advertisements are more effective than less likeable ones (see Section 5.2). This chapter reports research designed to test the same proposition applied to questionnaire cover designs.

5.2 Likeability

The debate over the importance of likeability in advertising is a long-standing one. Researchers first suggested a link between likeability and persuasion when it was found that "people who liked a commercial 'a lot' were twice as likely to be persuaded by it than people who simply felt neutral towards the advertising" (Biel & Bridgwater, 1990, p. 38). However, it was the conclusion that likeability was a better predictor of sales than any other measure (Biel, 1990a,b; Haley & Baldinger, 1991) that provided the strongest evidence that likeability enhanced the persuasive appeal of an advertisement.

This conclusion was based mainly on the results of the American Advertising Research Foundation Copy Research Validation Project, reported by Haley (1990) and Haley and Baldinger (1991). This study copy-tested five pairs of television commercials known to differ significantly in their sales, and concluded that advertisements that are liked outsell those that are not, and that likeability, the degree to which people liked an advertisement, was the best single predictor of advertising effectiveness among a number of measures tested.

The ARF finding was consistent with those of previous studies that showed likeability was a good predictor of sales (Spaeth, Hess, & Tang, 1990) and commercial design effectiveness (Biel & Bridgwater, 1990). Likeability was also linked with brand preference (Stapel, 1994) and motivation to purchase (Leather, McKechnie & Amirkanian, 1994). Later research by Kennedy and Romaniuk (1997) demonstrated that respondents who liked a particular advertising campaign were more likely to report potential behaviour change than those who did not like the campaign, and Kennedy and Sharp (1998) showed that people paid more attention to more likeable ads. Thorsen (1991), Appel (1992), Jones (1997) and du Plessis (1998a,b), all added support to likeability as a characteristic and predictor of successful advertisements.

However, Rossiter and Eagleson (1994) subsequently reanalysed the ARF's Copy Research Validation Project results and concluded that the importance of likeability had been overstated. Similarly, Hollis (1995) argued that likeability was just one facet of a more

complicated construct that he defined as 'involvement', and Kennedy and Romaniuk (1997) suggested that advertising likeability may be a 'hygiene factor' that is a necessary, but not sufficient, condition of advertising effectiveness.

Nevertheless, even Rossiter and Eagleson agreed that likeability should be included among the measures used in advertising copy testing. Furthermore, Walker and Dubitsky (1994) noted that "at the very least, ads that are better liked are more likely to be noticed and remembered" (p. 16). Thus, despite the absence of strong empirical evidence of the predictive effectiveness of likeability, it is generally agreed that likeability is an important contributor to advertising effectiveness.

It is also generally agreed that likeability can be measured simply by asking consumers how much they like or dislike an advertisement. The ARF Copy Validity Project used the question, "Thinking about the commercial you just saw, please tell me which of the statements on this card best describes your feelings about the commercial." The five response categories ranged from "I liked it very much" to "I disliked it very much" (Haley & Baldinger, 1991). This was a similar question and response scale to that used in the studies reported by Biel and Bridgwater (1990), Spaeth et al. (1990), and Kennedy and Sharp (1998). By contrast, in their UK study of the importance of likeability, Leather et al. (1994) used a seven-point semantic differential scale, anchored at one end with 'bad' and at the other with 'good', for evaluating television commercials. However, regardless of the scale used, the point is that likeability can be measured simply and directly.

Proponents of likeability as an important determinant of advertising effectiveness argue that advertisements consumers like are given more attention, and that this greater mental processing leads to greater memorability². Some also claim that liking engenders trust, or

² While it is clear how ad-liking and its effect on consumers is consistent with the 'strong' theory of advertising, du Plessis (1998a) argues it is also consistent with Ehrenberg's 'weak' theory and the concept of double jeopardy. (Ehrenberg argues that users better remember advertising for brands they use, hence, because bigger brands have more users, their advertising is likely to be better remembered and liked.) According to du Plessis, people have more positive feelings about the brands they use, consequently mention of a brand will evoke more positive emotional evaluation of the forming messages. This, in turn, ensures a better chance of getting attention, causing a better memory 'lay-down'.

source credibility, and evokes gratitude; consumers buy the product to reward the advertiser for likeable advertising (Biel, 1990a; Haley & Baldinger, 1991; du Plessis, 1998a,b).

If likeability does achieve these outcomes in advertising, it seems reasonable to assume the same thing may happen in survey research – that questionnaires respondents like will be more effective than those they dislike. This would be consistent with Nederhof's (1988) theory that the more memorable a questionnaire the more likely it is to be returned. It would also be consistent with the social exchange theory of survey participation. If likeability generates trust and gratitude, this should be manifested in a higher response rate for a more 'likeable' questionnaire.

This chapter reports the results of two experiments designed to test the hypothesis that a questionnaire with a more 'likeable' cover design will produce a higher response rate in a mail survey than a questionnaire with a less likeable cover.

5.3 Method: Likeability Experiment One

Twelve different questionnaire covers were designed for a self-completion survey on the environment. The basic layout of each cover was the same, a simple two-colour (blue and black on white) design, but each contained a different black and white image in a panel that occupied approximately half the cover. Some of these images were photos, some were graphics, and their content ranged from environmentally positive (e.g., an attractive seascape, native bush) to environmentally negative (e.g., a rubbish-littered canal, smoking chimneys), but also included some 'neutral' images with no obvious connection with the environment (e.g., part of a flax mat). The 12 designs are reproduced in Appendix D.

A convenience sample of 88 men and women between 18 and 65 years was selected to evaluate the twelve cover designs. Though the sample was a convenience sample, age and sex quotas were applied to ensure it was broadly representative of the target population for the environment survey (the sample composition is given in Appendix D.) Sample members were shown the 12 cover designs and asked a series of questions about them. These questions included how much respondents liked each cover, measured on a seven-

point semantic differential scale³, which cover they liked most and which they liked least, and five agree/disagree statements rated on Likert scales. (The questionnaire used is reproduced in Appendix D.) The order of presentation of the covers was reversed for half the respondents to average out any order effects.

This process gave eight potential measures of questionnaire cover design 'likeability':

- I like the look of this cover
- This cover stands out
- I think this cover would encourage people to do the survey
- This cover would be easy to remember
- This cover is relevant to the survey topic
- How much do you like this cover?
- Which cover do you like the most?
- Which cover do you like the least?

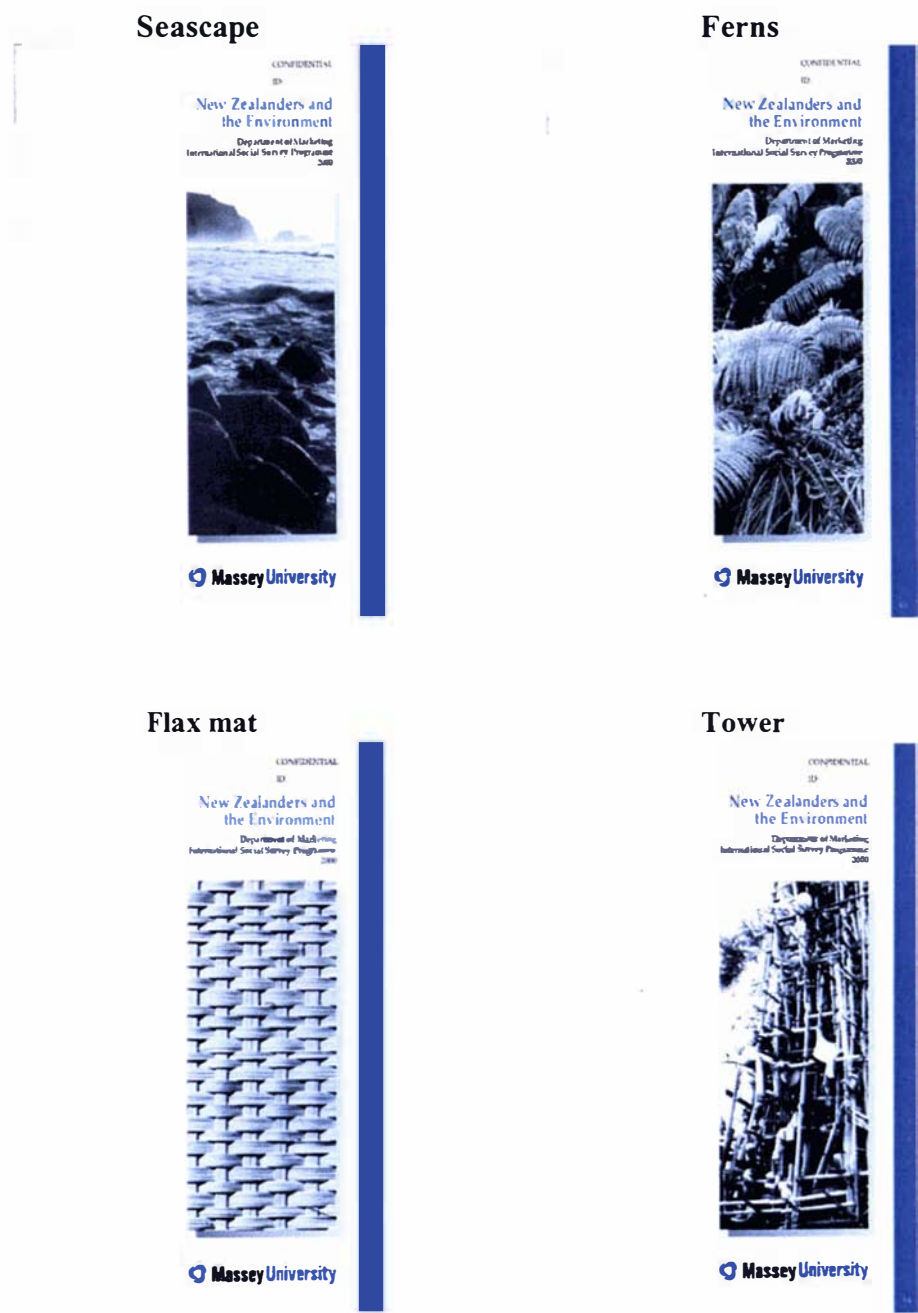
Examination of the ratings of the 12 cover designs tested showed that all eight measures were highly correlated; however, the simple 'likeability' scores ("How much do you like this cover?") gave the best discrimination between designs, and clearly differentiated between 'likeable' and 'unlikeable' covers. Furthermore, these scores were consistent with the reasons offered by respondents for selecting the cover they liked the most and the one they liked the least, giving the measure some face validity. Thus, for practical purposes, this overall 'likeability' measure offers a quick and convenient means of quantifying the construct of likeability. (See Appendix D for details of rating scores.)

The two most 'likeable' designs ('Seascape' and 'Ferns') and the two least 'likeable' cover designs ('Flax mat' and 'Tower') were then tested in the ISSP survey of the environment described in Chapter 3. These four cover designs are shown in Figure 5.2⁴. Potential

³ A seven-point semantic differential scale was used rather than a five-point Likert scale in an attempt to increase the level of potential discrimination between the alternative cover designs.

⁴ In fact the cover designs shown in Figure 5.2 differ from those tested before the survey in that the latter were black and white copies, not the blue and black on white covers actually used in the environment survey. This difference is discussed in Section 5.5.

Figure 5.2 Cover Designs Tested in Environment Survey



- Note:
- 1. A fifth cover with no design panel was also tested.
 - 2. The 'Flax mat' design is a portion of a Maori woven flax mat. The 'Tower' design is a tower 'sculpture' made out of wood and junk, located in a square in New York.

respondents were randomly assigned to one of the four different questionnaire covers or to a ‘no-design’ control (identical to the other covers, but with no design panel).

5.4 Results: Likeability Experiment One

The response rates for the different cover designs were virtually identical (around 60%), but were all lower than achieved by the no-design control (67%). Furthermore, amongst the covers that included designs, the least likeable cover achieved the best response. This is shown in Table 5.1. Thus there was no support for the contention that 'likeability' can be a predictor of the effectiveness of a questionnaire cover design in a mail survey, but some suggestion that questionnaire cover designs could actually be counter productive.

Table 5.1 Response Rates and Likeability Scores for Cover Designs Tested in Environment Survey

Outcome	Cover Design				
	Seascape	Ferns	Flax Mat	Tower	No Design
Valid	217	213	213	221	248
GNA	33	38	33	35	27
Ineligible	7	8	11	10	5
Refused	13	9	11	13	8
Not returned	130	132	132	121	112
Total	400	400	400	400	400
Response Rate (%)	60.3 **	60.2 **	59.8 **	62.3 *	67.4
Mean Likeability	5.70	5.40	2.95	2.65	

Note 1. Response rate = (Valid - (GNA + Ineligible)) / Total
2. ** Difference between design and no design significant at p <.05
* Difference between design and no design significant at p <.15

The difference in response rates between the seascape, ferns and flax mat designs and the no-design control is significant at the 5% level, but the difference between the tower design and no design is only significant at between 10% and 20%. Nevertheless, it is clear that none of the designs was as effective as the no-design control.

Analysis of response rates for the different cover designs by survey wave showed no differences in this pattern of responses, thus there was no evidence that cover design influences response speed or that it enhances response rate when a reminder is used in the absence of a questionnaire. (These analyses are shown in Appendix D.)

5.5 Discussion: Likeability Experiment One

The Seascape and Ferns covers were clearly the most 'likeable' covers initially tested, and consequently were expected to produce higher response rates in the Environment survey than the tower or flax mat designs or the no-design control. However, the response to the 'No design' cover was significantly higher than for any of the covers that incorporated a design, and the least likeable cover was more effective than all the more likeable covers. Though these results are contrary to the hypothesised outcome, there are some possible explanations for this.

In his advice on questionnaire cover design Dillman recommends:

. . . simple yet distinctive graphics aimed at making the questionnaire more retrievable...

(Dillman, 2000, p. 139)

It is possible that the 'No design' cover used in this study meets these requirements and that this explains its success. This explanation is consistent with the results of the study reported in Chapter 4, which compared six different mail survey cover designs of varying complexity, with response rates ranging from 61.5% to 67.4%. In this case, the simplest design – black lettering on a plain background, with no pictures or photos – out-performed all but one other cover.

Dillman also suggests the following:

First, the questionnaire needs to be immediately distinguishable from all other questionnaires that a respondent might receive, while creating a positive first impression. For this reason a simple and neutral graphic is often used, complete with a title . . . Detailed pictures, especially those selected quickly from clip-art files, should be avoided.

(Dillman, 2000, p.137)

A similar conclusion was drawn from another study reported in Chapter 4, where it was suggested that it is better to avoid photos in questionnaire cover designs because they have the potential to create unpredictable and sometimes undesirable images in the minds of respondents. Nevertheless, the designs tested in this environment survey experiment used photos rather than graphics. Some graphic designs were included among the 12 designs initially rated for likeability, but these were not subsequently tested because they were neither particularly liked nor disliked by respondents.

However, the initial evaluation of the cover designs did not include the 'No design' control, and it is possible that the likeability ratings of the covers tested would have been different if the no-design option had been included. But subsequent retesting of the five covers used in the environment survey suggested that the same decision would have been made about the covers tested in this experiment and the same expectations would have been held about its outcome. (See Section 5.8.)

Another possibility is that the 'No design' cover appeared more 'official' than the alternative designs, and consequently was more congruent with respondents' expectations. This would be consistent with the cognitive interviewing that accompanied the US Census Bureau national field test in 1996. Though many people preferred the brightness of the marketing appeals, they said they would be more likely to respond to the official government appeal because its plainer appearance was more consistent with what they expected from the government (Dillman, Jenkins, Martin, & De Maio, 1996, reported in Dillman, 2000). New Zealand respondents may have similar expectations of university-sponsored surveys.

It is also possible that the sampling method used to select the respondents who initially evaluated the test cover designs had some impact on the study. The sample was a convenience sample, mostly recruited from around Massey University in Palmerston North, and hence consisting mainly of students and university academics. Thus it was not representative of the population surveyed in the Environment survey and this may have had a bearing on the outcome of the study.

Finally, the cover designs initially tested in this study were black and white copies of the two-colour covers actually used in the environment survey. It is difficult to imagine how this would have affected the initial likeability rating of the covers, but some interaction between colour and design may have been overlooked by not using coloured covers in the initial evaluation process. In other words, perhaps it is necessary to measure likeability using finished (or close to finished) full-colour artwork.

Thus it is possible that the ability of likeability to predict the response to different questionnaire cover designs was affected by the way in which this experiment was conducted. To test this possibility, the experiment was replicated, but this time using graphics-only cover designs. In addition, a 'no design' control was included among the covers initially rated for likeability, these covers were reproduced in colour, and the sampling method was changed from a convenience sample to a mall intercept.

5.6 Method: Likeability Experiment Two

Five different questionnaire covers were designed for a self-completion survey on social networks (relationships between people and their families and friends). Four of the covers contained different graphical designs reflecting the survey topic, while the fifth was a plain, 'no design' cover. The five covers are reproduced in Appendix E.

A sample of 223 respondents recruited by mall intercept was asked to rate each of the five covers on the same seven-point likeability scale used in the previous cover design experiment. Quotas were applied to achieve approximately the same proportions of men and women in three age categories: 18-30, 31-50 and 51 plus, and thus to ensure the sample was broadly representative of the target population for the Social Networks survey. (The average likeability ratings given to each cover tested and the composition of the mall intercept sample are also reported in Appendix E.)

Two versions of the questionnaire were used so that the order of presentation of the test covers could be reversed with half the sample. (A copy of the questionnaire used is reproduced in Appendix E.) Interviews were arranged so that half of each age-sex

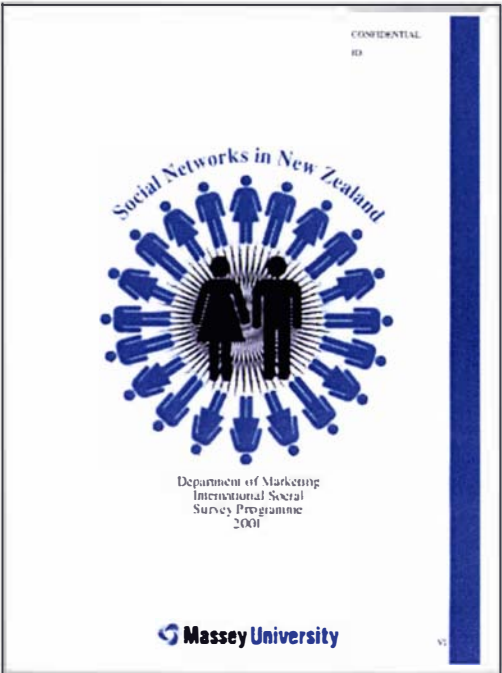
subgroup was exposed to a different version of the questionnaire. As well as testing the five Social Networks covers, the mall intercept survey was also used to retest the likeability of the Environment survey covers, this time including the no-design control, and to test the questionnaire cover designs used previously in the Role of Government, Shopping in New Zealand and the Roles of Men and Women in Society surveys described in Chapter 4. The results of these latter exercises are discussed in Section 5.8.

The two most 'likeable' Social Networks cover designs were tested against the 'no design' cover (which was the least 'likeable') in a mail survey of 2200 members of the New Zealand general public. The covers tested are shown in Figure 5.3. The vehicle for the research was the International Social Survey Programme survey on social networks, conducted between August and November 2001. The sample was randomly selected from the New Zealand Electoral Roll, with proportional stratification by electorate. The questionnaire comprised 24 pages and included 126 questions about families and friends, experiences of funerals, and disability issues, plus extensive demographic questions.

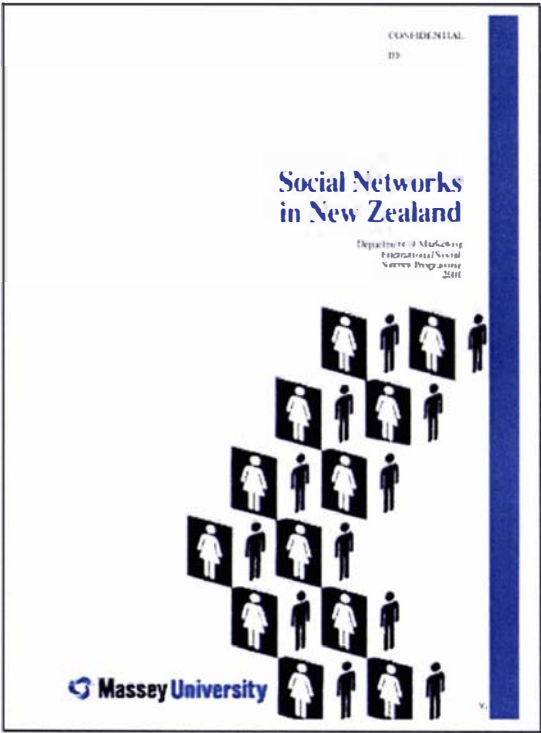
The questionnaire also included the same likeability question that had been used to evaluate the original cover designs in the mall intercept survey. This provided a means of determining whether survey respondents' impressions of cover design likeability (at least among those who returned their questionnaires) were the same as those of the mall intercept survey sample. In other words, a means to determine if 'pre-test' likeability is a good predictor of cover design likeability among actual respondents.

Potential respondents were randomly assigned to one of two different questionnaire cover designs or a 'no design' control. After three reminders 1151 valid questionnaires had been returned, 128 respondents refused to take part in the survey, 63 had died or otherwise ineligible, and 262 questionnaires were returned 'Gone no Address'. This represents a response rate of $[1151/(2200-325)] * 100 = 61.4\%$.

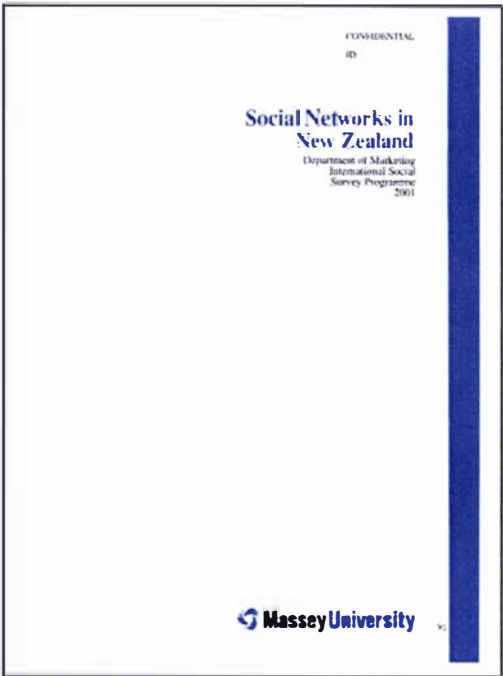
Figure 5.3 Cover Designs Tested in Social Networks Survey



Circle



Blocks



No Design

5.7 Results: Likeability Experiment Two

Table 5.2 shows for each cover tested the pre-survey likeability rating, the response rate achieved and the average likeability based on likeability ratings of the respondents who returned questionnaires with that cover. For explanatory purposes the cover designs tested are referred to as ‘Circle’, ‘Blocks’, and ‘No design’.

The response rate pattern is consistent with the average likeability of the covers tested. The most ‘likeable’ cover, the ‘Circle’ design, had the highest response rate, the least ‘likeable’ design, the ‘No design’ control, the lowest response rate. Overall, the effect of a likeable, graphic cover design was around 2.0%. While this effect is in the direction expected, it is not statistically significant, and the correlation between cover design likeability and response rate is also weak.

Table 5.2 Response Rates and Likeability Scores for Cover Designs Tested in Social Networks Survey

Outcome	Circle	Blocks	No Design
Valid	396	385	370
GNA	85	90	87
Ineligible	15	20	28
Refused	38	46	44
Not returned	201	193	207
Total	733	734	733
Response Rate ^{1,2} (%)	62.6 ns	61.7 ns	59.9
Mean Likeability			
Pre-survey	4.70	4.41	2.43
In-survey	4.60	4.42	3.97

Note 1. Response rate = (Valid - (GNA + Ineligible)) / Total
2. ns Difference between design and no design not significant.

While the pre-survey and in-survey likeability scores for the Circle and Blocks designs are virtually the same, the mean likeability for the No-design control is higher for survey respondents than in the pre-test. Presumably this reflects the fact that survey respondents

saw only one cover while mall intercept respondents compared all three. However, it is clear that 'likeability' is a robust measure to the extent that the pattern of likeability scores was the same before and in the survey and that the scores for two of the designs were virtually identical for both survey samples.

5.8 Discussion: Likeability Experiment Two

This experiment suggests that, if questionnaire cover design does affect the response rate for mail surveys of the general public, its effect is marginal. Nevertheless, an increase in response may be achieved with a 'likeable' graphic cover design. It cannot be determined if a more likeable design than the ones developed for the Social Networks survey would have produced a stronger effect, but the pattern of results suggests that likeability may be a practical way of choosing between alternative cover designs for a particular survey (though this conclusion must be tempered by the contradictory result of the previous study, which this one replicated).

For mail survey practitioners, the best advice seems to be that they should consider using a 'likeable' questionnaire cover design, but avoid cover designs involving photographs, and be aware that, if there is a positive effect of cover design on response, it is likely to be small. Furthermore, this study has considered only response rate, with no consideration given to survey costs. Graphic cover designs are inevitably more expensive to produce than the simple, no design alternative, so if the effect of a 'likeable' cover design on response rate is small, it is unlikely to be a cost-effective survey strategy.

As previously discussed, the mall intercept survey used to evaluate the likeability of the social networks questionnaire cover designs was also used to rate 15 other questionnaire covers that had been used in previous self completion surveys. These surveys included the Environment survey outlined in this chapter, as well as the three surveys described in Chapter 4. To avoid respondent fatigue, two sets of 15 questionnaire covers were designed as stimulus material, and each set was tested on half the mall intercept sample. The content of each of these sets of cover designs is shown in Figure 5.4.

Figure 5.4 Cover Designs Rated in Mall Intercept Survey

Sample 1		Sample 2	
A	Shopping in NZ Black	A	Shopping in NZ White
B	Role of Government White	B	Role of Government Black
C	Social Networks Conveniences	G	Social Networks Pyramid
D	Social Networks Blocks	F	Social Networks Circle
E	Social Networks No Design	E	Social Networks No Design
F	Social Networks Circle	D	Social Networks Blocks
G	Social Networks Pyramid	C	Social Networks Conveniences
L	Environment Seascape	H	Environment No Design
K	Environment Ferns	I	Environment Tower
J	Environment Flax Mat	J	Environment Flax Mat
I	Environment Tower	K	Environment Ferns
H	Environment No Design	L	Environment Seascape
M	Roles Men & Women A1	M	Roles Men & Women B1
N	Roles Men & Women A2	N	Roles Men & Women B2
O	Roles Men & Women C1	O	Roles Men & Women C2

age 114, para 2: each of the 18 covers

Each set of covers contained the five original social networks designs, presented in reverse order in alternative sets. Each set also contained the five designs tested in the Environment survey (including the no-design control), also presented in reverse order in alternative sets. Each set contained either the black or white ‘contrast’ cover from the Role of Government and Shopping in New Zealand surveys, and, finally, each set contained three of the six covers used in the Roles of Men and Women in Society survey. Thus each respondent evaluated two complete groups of test questionnaires (Environment and Social Networks) and three incomplete groups.

Table 5.3 shows the mean likeability ratings for each of the 15 covers evaluated by the mall intercept sample, the response rate achieved by each cover when used in a mail survey, and the relationship between likeability of cover design and response rate for each of these surveys.

Table 5.3 Likeability Ratings and Response Rates for Five Surveys

Cover Design	Mean Rating		Response Rate	Likeability-Response Relationship
Shopping in NZ Black	3.49		67.7	+ve
Shopping in NZ White	3.38		65.5	
Role of Government Black	3.46		71.5	No effect
Role of Government White	2.81		71.2	
Roles Men & Women A2	3.90		67.4	+ve
Roles Men & Women A1	3.08		65.9	
Roles Men & Women B2	4.71		66.3	+ve
Roles Men & Women B1	3.71		64.5	
Roles Men & Women C2	4.64		61.5	-ve
Roles Men & Women C1	4.48		66.4	
Environment Seascape	5.29	5.70 ¹	60.3	-ve
Environment Ferns	5.07	5.40	60.2	
Environment Tower	3.40	2.65	62.3	
Environment Flax Mat	3.31	2.95	59.8	
Environment No Design	2.27		67.4	
Social Networks Circle	4.70	4.60 ²	62.6	+ve
Social Networks Blocks	4.41	4.41	61.7	
Social Networks No-Design	2.43	3.97	59.9	

Note 1. Likeability scores from 2000 experiment.
2. Likeability scores from survey respondents.

The relationship between questionnaire cover likeability and response rate for the Social Networks and Environment surveys has already been discussed. For the Environment survey, it is interesting to note that, when the 'No design' cover is included in the likeability rating process, the ratings for the covers that include graphic designs are somewhat different from those originally estimated (for example, the Tower design is preferred to the Flax Mat design). However, it is impossible to say whether this is due to the inclusion of the no-design cover in the evaluation process, the fact that only five designs were evaluated by the mall intercept sample compared with 12 designs by the

convenience sample that originally evaluated the cover designs, or simply the result of sampling error.

For both the Shopping in New Zealand and Role of Government surveys the predominantly black cover is rated more likeable than the predominantly white cover (incidentally, a result that would support Nederhof's theory). For Shopping in New Zealand this preference for the predominantly black cover is associated with a small (2.2%) increase in survey response rate, but for Role of Government there is absolutely no effect. For the Roles of Men and Women in Society survey there are three separate comparisons; for two of these the more likeable cover (in each case the cover with graphic design) is associated with a small (about 1.5%) increase in response rate, but for the last comparison the highest response rate is associated with the less likeable cover.

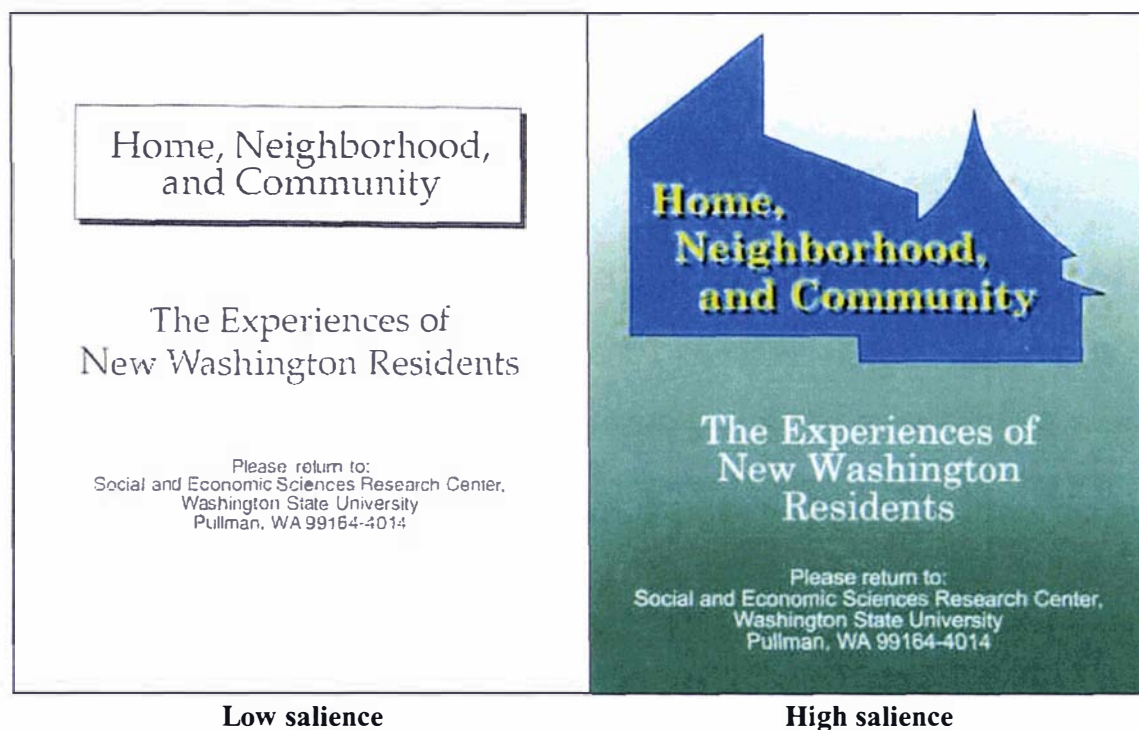
However, this last comparison in the Roles of Men and Women survey is different from the other two. In this case, the two covers were assessed by different sub-samples of respondents, consequently it is not certain that the comparison of the two covers, C1 and C2, by the same sub-sample would have produced a similar result. Nevertheless, the qualitative research reported in Chapter 4 suggests the mean scores shown in Table 5.3 accurately reflect the relative likeability of these two covers among potential respondents.

Dillman and Dillman's (1995) study of the influence of cover design on the response to mail surveys also provides some indirect evidence of the effect of questionnaire cover design likeability. In two survey experiments, Dillman and Dillman tested what they called 'high salience' questionnaire covers, consisting of an attractive, four-colour graphic design, against 'low salience' covers, consisting of black and white text without the graphic design⁵. The two pairs of covers are reproduced in Figure 5.5.

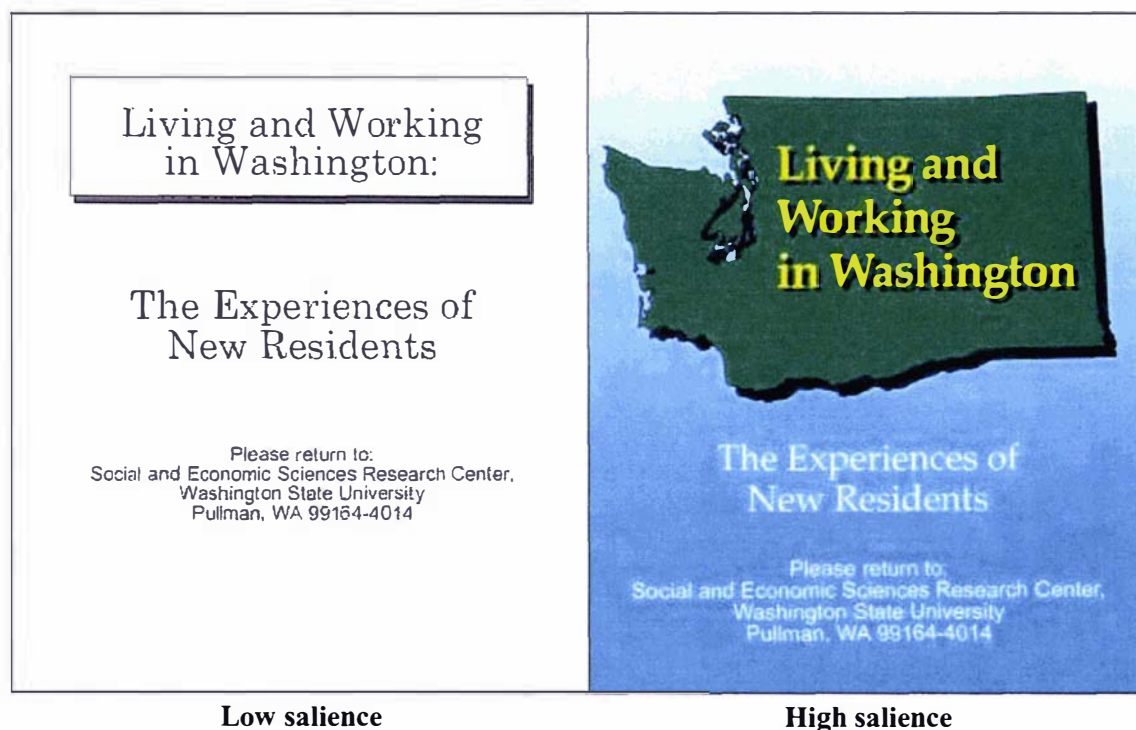
⁵ The description of the cover designs as 'high salience' and 'low salience' is actually given in another paper by Dillman, Dillman, Baxter, Petrie, Miller, and Carley (1995) that discusses the same experiments.

Figure 5.5 Cover Designs Tested by Dillman and Dillman (1995)

Experiment 1



Experiment 2



On the basis of the pattern of likeability ratings shown in Table 5.3 it would be reasonable to assume that the covers Dillman and Dillman described as 'high salience' were more 'likeable' than the 'low salience', text-only covers. In both experiments, the more likeable covers produced higher response rates: 3.5% higher in one case, 1.8% higher in the other. Neither of these differences is significant, but they are both in the direction expected if likeability (salience) was positively correlated with response rate.

Overall, analysis of the relationship between likeability and response rates for the seven surveys (nine comparisons) described supports the conclusion drawn from the social networks cover design experiment. A 'likeable' questionnaire cover design may increase the response rate for mail survey, but the effect is not guaranteed and, if it does occur, it is likely to be small. This conclusion must, however, be tempered by the fact that in only two of the nine comparisons described above was a no-design control included. While there is some evidence that a more likeable cover design may be more effective than a less likeable one, it does not automatically follow that it will be more effective than a cover with no design.

However, if we limit consideration to only those comparisons involving graphic designs, the evidence for likeability as a determinant of response rate is slightly stronger. A meta-analysis using the proportion difference method estimated a mean effect size of 1.8% for the difference in response rate between a likeable cover design and a less likeable design. This mean effect size is not significantly different from zero at the 5% percent level ($z = 1.46$), though this is partly a function of the meta-analytic technique used⁶. Adding the result of Nederhof's study to the analysis increases the mean effect size to 2.2% and the z -value to 1.81. However, it also produces a significant homogeneity test statistic ($Q = 2.78$, $d.f. = 7$), indicating that the effect sizes are no longer normally distributed. Thus, while Dillman and Dillman's results can reasonably be combined with those of the studies reported in this thesis, Nederhof's result cannot.

⁶ For this meta-analysis the number of observations was seven, because the social networks study was treated as two separate studies. The analysis was also conducted using the more technically correct log-odds method, but the results were similar to those produced by the proportion difference method (which are easier to interpret), except that the confidence interval estimated by the log-odds method was 1.0171 – 1.1880, indicating that the estimated effect size was significant at the 5% level.

5.9 Some Methodological Issues

As explained in the previous section, the mall intercept survey used two sets of stimulus material and each set was presented to half the sample. The Environment survey covers and the Social Networks survey covers tested were presented in reverse order to half the sample to average any order effects. In addition, within each group of covers the 'No design' cover was positioned differently. For the Environment covers the 'No design' cover was placed at either the beginning or the end of the five covers tested; while for the Social Networks covers it was located in the middle of the group.

This arrangement allowed for analysis of the effect of the 'No design' cover on respondents' likeability evaluations of the covers with graphic designs. The rationale for this test was the assumption that the 'No design' cover might act as a likeability 'anchor' and thus the ratings given to other covers might depend not only on their internal order of presentation but also on their relationship with the 'No design' cover.

The average likeability ratings for the two presentations of Environment survey covers are shown in Table 5.4.

Table 5.4 Likeability Ratings for Alternative Presentations of Environment Survey Covers

Version 1		Version 2	
Cover Design	Mean Likeability	Cover Design	Mean Likeability
No design	2.28	Seascape	5.36
Tower	3.53	Ferns	5.33
Flax mat	3.19	Flax mat	3.44
Ferns	4.82	Tower	3.28
Seascape	5.21	No design	2.27

The mean likeability of the 'No design' cover was the same regardless of whether it was the first or last cover viewed. However, there is some evidence of an 'anchoring effect'; when the 'No design' cover was viewed first, the subsequent covers were generally rated lower than when the 'No design' cover was viewed last. Despite this, the pattern of likeability is generally consistent for both presentations (the exception is the relationship between the

‘Tower’ and ‘Flax mat’ designs, but in both presentations these were clearly less ‘likeable’ than either the ‘Seascape’ or ‘Ferns’ covers and more ‘likeable’ than the ‘No design’ cover).

The average likeability ratings for the two presentations of Social Networks survey covers are shown in Table 5.5.

Table 5.5 Likeability Ratings for Alternative Presentations of Social Networks Survey Covers

Version 1		Version 2	
Cover Design	Mean Likeability	Cover Design	Mean Likeability
Conveniences	4.16	Pyramid	4.17
Blocks	4.30	Circle	4.55
No design	2.48	No design	2.38
Circle	4.85	Blocks	4.52
Pyramid	4.25	Conveniences	4.16

There is some suggestion of an interaction between likeability rating and order of cover presentation. Three of the four covers were rated higher when seen after the ‘No design’ cover, and the ‘No design’ cover was rated lower when it followed the most likeable ‘Circle’ design than after the less likeable ‘Blocks’ design. However, the evidence of interaction is weak and the patterns observed could simply be attributable to sampling error. Regardless of this, the order preference for the covers is the same for both presentations: the ‘Circle’ design is the most likeable, followed by ‘Blocks’ design, with the ‘No design’ cover the least likeable.

There is no way of determining from these two analyses the ‘best’ presentation order for evaluating questionnaire cover designs. All that can be said is that presentation order is almost certain to affect the likeability ratings given, but less likely to affect the relative ranking of covers or the decision about which cover is most ‘likeable’. Nevertheless, in practice it would be prudent to reverse the order of presentation for half the evaluation

sample and average the results, or to present the covers tested in random order to address this problem of item order effect.

5.10 Conclusions

Despite the fact that some questionnaire cover designs produce better response rates in self-completion surveys than others, there is no substantiated explanation of why this happens. The suggestion that likeability, a predictor of advertising effectiveness, might predict the effectiveness of questionnaire cover design in a mail survey was weakly supported by the studies described in this chapter. The evidence in some cases was contradictory and, where it did support the likeability-response rate link, it was indicative at best and not significant. However, for five of the six comparisons involving graphic designs only, the most likeable cover produced an average increase in response rate of approximately 2%.

If questionnaire cover design does influence mail survey response rates in a predictable way, compelling evidence for this remains elusive. Nevertheless, this research has shown that likeability is a relatively robust measure when applied to questionnaire cover design, that graphic cover designs are 'safer' than designs that include photos, and that a more 'likeable' graphic questionnaire cover design is likely to be slightly more effective in generating response than a less 'likeable' one. The research also suggests that likeability in questionnaire cover design can be measured by a simple seven-point semantic differential question, "How much do you like this cover?", which gives good discrimination between cover designs and produces relative likeability scores that appear to have some face validity.

When testing the likeability of alternative questionnaire cover designs, it is probably better not to use a convenience sample for this purpose. However, a mall intercept sample, representative of the survey population, would be appropriate. It is also important to include a 'no design' alternative among the covers tested, to allow for the possibility that this may be the most likeable 'design', and to randomise or rotate the order of presentation of the designs tested to address the problem of item-order effect.

Finally, it is possible that questionnaire cover design is more important in surveys with low salience topics than surveys of high salience topics. This would be consistent with the leverage-salience theory of survey participation. In other words, for surveys where the topic had relatively little 'leverage', the effect of questionnaire cover design may be greater (and vice versa). It would also be consistent with Biel and Bridgwater's conclusion that the relationship between advertising likeability and persuasion is strongest for low-involvement categories (Biel & Bridgwater, 1990).

6. CONCLUSIONS AND DISCUSSION

6.1 Introduction

The objective of this research was to examine the effect on mail survey response rates of covering letters and questionnaire cover design. Specifically, the objectives were:

1. To determine the effects of type of appeal, complexity, tone and personalisation in a mail survey covering letter; and
2. To determine the effect of complexity, contrast and likeability in the cover design of a self-completion questionnaire.

The theoretical basis for the research was social exchange theory, a general explanation of survey participation that asserts that an individual's actions are motivated by the return these actions are expected to bring from others, and that a particular action depends on the balance between rewards, costs and trust.

According to social exchange theory, persuasive covering letters and attractive questionnaires should increase survey participation by evoking a sense of reciprocal obligation on the part of the respondent. This may occur either as a result of the appeal expressed in the cover letter or through recognition of the effort and resources expended by the researcher. The rationale for personalising cover letters is also supported by the argument that this rewards respondents by creating the impression they have been singled out for special attention. In addition, if the appearance of the covering letter and its accompanying questionnaire projects an image of professionalism, and respondents like the questionnaire cover design, this should increase their trust in the survey sponsor and hence their willingness to cooperate with the survey request.

The research undertaken also incorporated ideas from direct marketing on the content and appearance of covering letters, and the concept of likeability from advertising research.

6.2 Research Findings and Implications

Six mail surveys of the New Zealand general public, fielded over the period 1993 to 2001 and all sponsored by Massey University, provided the medium for a series of experiments designed to achieve the research objectives set. Because the population surveyed and the survey sponsor were consistent for all six surveys, two of the factors that may influence the response rate for a particular survey were eliminated from the experiments conducted. Thus interpretation of the effect of the experimental variables tested is not confounded by differences in survey population or sponsor.

Covering letter appeal, complexity, tone and personalisation

The content and tone of covering letters can influence the response rate for mail surveys, but the effect may depend on the type of appeal and the way in which it is conveyed. For university-sponsored surveys of the general public an altruistic appeal appears to be more effective than an egoistic appeal. The same conclusion seems likely to apply to any non-commercial survey sponsor. For commercial researchers, an egoistic appeal may be more successful, but the evidence for this conclusion is rather weak (and commercial sponsorship was not tested in the research conducted).

Though it is difficult to define precisely what constitutes tone in a covering letter, there appears to be an interaction between tone and appeal, and response rate. The combination of a strikingly informal letter and an egoistic appeal produced a lower response rate than for the same letter combined with an altruistic appeal. This suggests that, while a very informal tone may reinforce a request for help, the same tone reduces the credibility of an egoistic appeal.

There was no evidence that simplicity or the presence of graphics increases the effectiveness of survey covering letters. However, it would seem unwise to deduce from this that clarity of expression is unimportant in covering letters, or to abandon attempts to use creativity and imagination in the design of survey covering letters.

A test of a personalised covering letter also revealed little or no evidence that personalisation influences response rate, response speed, item nonresponse, or social

desirability bias. This is contrary to the findings of a number of previous studies; however, the fact that the survey sponsor was a well-known university may explain the absence of any personalisation effect in this case. From a practical point of view, the best advice for survey researchers is that they should use personalisation, unless there is a good reason to avoid it, and particularly if it is more difficult not to personalise survey correspondence (which is sometimes the case with modern survey-processing technology).

Overall, the research reported here suggests that the manipulable elements of covering letters are relatively unimportant compared with the effect of additional contacts with respondents. Furthermore, because survey sponsor, topic, target population, and type of appeal and its execution, are inextricably linked, it may be impossible to establish specific rules for the content, style and appearance of survey covering letters.

Questionnaire cover design

Several tests of Nederhof's theory, that a more distinctive, complex questionnaire cover design is more effective than a simple one, failed to replicate the results on which this theory was based. One study produced some evidence that, in the absence of an accompanying questionnaire, a highly contrastive cover design is more effective than a barely contrastive design. However, the most effective strategy for increasing survey response was to include a questionnaire with every wave of a mail survey.

If including a questionnaire with every survey wave is too expensive, post-card or letter-only reminders will reduce costs, but at the expense of the response rate. This raises the issue of how to determine the relative cost effectiveness of different survey methods. Most conventional cost effectiveness measures are flawed because they ignore the absolute response rate achieved and the fact that a method that produces more responses (i.e., a successful method) is more expensive for this reason. A solution to the first problem would be to compare cost effectiveness only for methods that achieve a minimum acceptable response rate. Alternatively, cost effectiveness could be measured by calculating the cost of achieving the same processing sample size using different survey methods.

The suggestion that likeability, a predictor of advertising effectiveness, might predict the effectiveness of questionnaire cover design in a mail survey was weakly supported. In five out of six studies of questionnaire covers involving graphic designs (rather than designs involving photographs), the more 'likeable' covers produced an average increase in response rate of approximately 2%, though individually none of the observed effects was significant. Questionnaire cover design 'likeability' is easy to measure and produces relative likeability scores that appear to have face validity. Consequently, researchers can use likeability to choose between alternative graphic cover designs, even if they cannot be sure that they have created the most effective design.

When testing the likeability of questionnaire cover designs it is better to use representative samples of the survey population than convenience samples. For surveys of the general public, a representative mall intercept sample would be appropriate. It is also important to include a 'no design' alternative among the covers tested, to allow for the possibility that this may be the most likeable cover, and to randomise or rotate the order of cover design presentation, to address the problem of item-order effect.

Overall, it appears that the effect of questionnaire cover design on response rate will be marginal in a well-conducted survey. Nevertheless, the appearance of the questionnaire inevitably contributes to the impression created by any survey package, thus it would be wrong to ignore the issue of questionnaire cover design simply because researchers have not yet been able to determine reliably how to create a better questionnaire cover.

The idea of applying direct marketing techniques to mail survey research received little support, either from the research reported here or from the US Census Bureau study in which the same idea was tested (see Leslie, 1996). However, in both cases the sponsor was a government organisation; in these circumstances a direct marketing approach may be at odds with this 'official' sponsorship. If respondents do not expect universities or government departments to use direct marketing techniques in research, they may not react well to them (in fact, such techniques may even diminish the impact of the survey sponsorship). Nevertheless, it is possible that direct

marketing techniques may increase the effectiveness of commercial mail surveys, where there is less likelihood of conflict between sponsorship and execution of the survey package.

6.3 Research Limitations

The surveys analysed in this research were confined to surveys of the general public and to topics of general interest. Thus the results cannot necessarily be projected to industrial (business) surveys or to surveys of other populations. Further, the sponsor in all cases was a university, and sponsorship has been shown to be a determinant of survey response. It is possible that interaction occurred between this 'official' sponsorship and some of the survey elements tested. For example, one explanation for the failure to detect any response to personalisation is that Massey University is so well known in New Zealand that this familiarity overrode the effect of personalisation.

Studies of the effect of cover letter content and appearance, including the ones reported here, are unavoidably confounded by the interpretation and operationalisation of the constructs tested. Consequently, rather than attempting to define these abstract constructs, it may be more useful simply to test particular concrete elements of covering letters (such as particular words or phrases, for example), and to adopt those that prove to be effective.

More generally, testing of abstract concepts, such as the tone of covering letters and the likeability of questionnaire cover designs, is fraught with difficulty. These concepts can, of course, be defined, but even if there is general agreement on the definition, implementation is often problematic. The alternatives are either to abandon the idea of testing abstract concepts in favour of testing specific content elements (as suggested above), or to develop independent measures of the constructs and test these.

The research described in this thesis was designed to test the independent effects of covering letter content and appearance and questionnaire cover design. In this respect

it mirrors the approach taken in most of the mail survey response research conducted. The rationale for this approach is easily defensible: researchers want to know which elements are worth incorporating in their surveys. However, there are two problems with this approach. First, what works for one population, topic or sponsor may not work for another. Second, prospective respondents are influenced by the entire mail survey package, not just the individual inducements techniques. Tests of individual survey elements on a particular population inevitably ignore these problems.

6.4 Suggestions For Further Research

The potential benefit from conducting more empirical studies of the effects of particular survey elements on single populations is limited. We know what works in general in mail surveys – incentives and reminders – and, as previously discussed, what works in particular situations is likely to vary with the sponsor, population and topic. However, despite a large number of studies conducted, we still know relatively little about the process of mail survey response (or nonresponse).

Greater emphasis needs to be placed on survey respondents' behaviour and the reasons for it. Future research could, therefore, examine what happens when a mail survey arrives, at what point nonresponse is manifested and what stimuli cause potential respondents to become nonrespondents. Research could also explore how the propensity of survey recipients to respond at different stages in the survey process can be influenced and how mail surveys can be tailored for different populations.

Some researchers (see for example, Brennan & Hoek, 1992; Diamantopoulos & Schegilmilch, 1996; Helgeson, Voss, & Terpening, 2002) have attempted to address these questions using a 'survey on surveys' approach. However, there is a fundamental problem with these studies, as Goyder explains: "...the epistemological limitation to surveys on surveys is self-evident; employing an instrument to measure its own importance is immediately contradictory" (Goyder, 1982, p. 28).

A study into the sources of nonresponse to the 1990 US Census avoided this problem by conducting, face-to-face interviews with a large sample of respondents and

nonrespondents (Kulka, Holt, Carter, & Dowd, 1991). The study found various reasons why people did not return the Census form, and these give some valuable insights into the survey response process. These reasons ranged from not considering the Census important, to not being interested in the topic, to concerns about privacy and confidentiality. But an official census is a unique form of survey, and the reasons for responding or not responding to other surveys may be different.

Repetition of the methodology used in the 1990 US Census study for different types of surveys would almost certainly extend our knowledge of the survey response process. However, the methodology is highly structured and very quantitative, and this may be a limitation in a situation where the objective is to establish why nonrespondents behave as they do. An alternative, but complementary, approach would be qualitative research along the lines of Helgeson's phenomenological study of receiving and responding to a mail survey (Helgeson, 1994). Qualitative techniques may help to develop a clearer understanding of how respondents and nonrespondents actually react to surveys and how researchers can influence the outcome of this process. Nevertheless, such studies need to be conducted in the framework of an overall model of the survey decision process.

Helgeson, Voss, and Terpening (2002) have suggested a hierarchy-of-effects model that proposes survey-response behaviour moving from attention to intention to completion to return. While this is a logical model (unless a survey gains respondents' attention, they will not return it), it does little to advance our understanding of the process beyond the earlier work of Furse and Stuart (1984). These authors conceptualise the survey response process as a series of sequential decisions at four stages: receiving the questionnaire, opening the envelope, evaluating the survey request, and filling out the questionnaire.

Furse and Stuart's model produces four types of nonrespondents, depending on what stage in the process they decide not to respond (see Furse & Stuart, 1984, p. 85). This is a useful conceptual framework for qualitative analysis of survey respondents' behaviour and motivations, and is consistent with Kulka et al.'s study, which found that some people did not remember receiving the Census form, some received it but did not open the envelope, some opened the envelope but did not start the

questionnaire, while others started the questionnaire but did not finish it, or finished it but did not mail it back.

Some specific questions the research proposed could usefully address include respondents' reaction to features of the survey outer envelope, their reaction to aspects of questionnaire design other than the cover (such as perceived length, format and graphic design) and to different elements of the covering 'letter' (such as length, form and content), the option of including a shorter questionnaire in the final posting, and the effect of the timing of postings. The cognitive techniques developed for questionnaire pretesting – concurrent or retrospective 'think aloud' methods, for example – could be adapted and applied to this task

Finally, more emphasis needs to be given to industrial, or commercial, populations because these have proved difficult to survey and less is known about the factors that motivate response in such populations. For a start, the person who initially receives the questionnaire in an industrial mail survey (a secretary, for example) may not be the intended respondent. This means there is an extra screening stage in the response process. Also, business executives and professionals may be more sensitive to questionnaire length because of other demands on their time. Some work has been done in this area (see Jobber, 1989; Kaner, Haighton, & McAvoy, 1998; Dillman, 2000), but much remains to be learned.

6.5 Conclusions

Until relatively recently, research on the determinants of mail survey response has implicitly assumed it is possible to establish a common set of principles for good survey design. This is a fundamental tenet of Dillman's Total Design Method, for example, (see Dillman, 1978). With the benefit of hindsight, this is an unrealistic assumption because survey research is a social activity and as such is affected by societal changes and by differences among groups in society. Consequently, we should not be surprised if techniques, such as personalisation, which may have worked in the past, are no longer effective, or if techniques are effective with some populations or in some circumstances but not in others.

The implication is that the pursuit of comprehensive principles applying to all self-completion surveys is futile. Rather, the optimum design for an individual survey depends on the specific nature of the survey sponsor, population, and content, and the relative importance of different survey design elements may vary depending on the situation. This is the basis of Dillman's Tailored Design Method (see Dillman, 2000), and also underpins Groves et al.'s (2000) leverage-salience theory of survey response.

Thus, while covering letters and questionnaire covers may not in themselves have a significant effect on survey response, they may reinforce other factors. For example, they may contribute to the overall 'image' of the survey, and create greater trust on the part of the recipient. This would be consistent with the leverage-salience theory; for some respondents, in some circumstances, a likeable cover design or an appealing cover letter may 'tip the balance' between responding and not responding.

In practice, the problem is how to determine, in the absence of a specific set of survey design principles, the particular survey features that will maximise response. It seems clear that prepaid monetary incentives and follow-up contacts are effective in virtually every situation, but the effect of other response facilitators is not reliably predictable; the researcher has to rely on experience and judgment, and knowledge of what has been effective in similar circumstances. In other words, survey design is a mixture of art and science.

Labaw (1980) alludes to this when she likens the process of questionnaire design to that of painting. While there are principles of composition, balance, perspective, and colouring in art, by themselves they do not explain the inherent beauty of a painting; it is the artist's application of these principles that creates this. Similarly, though Dillman's Tailored Design Method incorporates empirical findings about the factors that influence response to self-completion surveys, it also recognises that there are elements of judgment and experience in the design of any survey.

Achieving a good response rate is only one aspect of successful survey research. The process also involves sampling and questionnaire design. But if the response to a mail survey is poor, and there is ample evidence of surveys for which this is the case, there is potential for serious nonresponse bias, regardless of the quality of the sample

design or the questionnaire used. Declining response rates can only exacerbate this problem. The issue of response rates and how to maximise them will, therefore, continue to exercise the minds of survey researchers and academics.

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APPENDICES

APPENDIX A
SURVEY DETAILS: LETTER APPEALS EXPERIMENT

- Cover letters tested: Environment 1993
- Response rate details: Environment 1993
- Design details: letter appeals experiment

Egoistic Appeal
Complex Letter



**MASSEY
UNIVERSITY**

Private Bag 11222
Palmerston North
New Zealand
Telephone 0-6-356 9099
Facsimile 0-6-350 5608

**FACULTY OF
BUSINESS STUDIES**

DEPARTMENT OF
MARKETING

September 1993

ENVIRONMENT SURVEY

Have you ever wanted to have your say about the environment? We hear such a lot about environmental issues these days, but it is often difficult to identify what New Zealanders really think is important. Here is your opportunity to express your opinions and to have your voice heard.

Enclosed is a copy of a questionnaire on the environment, which I would be grateful if you would answer and return in the envelope provided (there is no need to put a stamp on it).

You may be wondering how you were chosen for the survey. I took a random sample of names from the electoral rolls and your name was one of those selected. However, all your answers will be completely confidential. The number on the questionnaire is to allow me to cross your name off once you have returned your questionnaire and ensure that I don't send you a reminder.

The results of this research will be made available to government officials and politicians so they are informed of how New Zealanders feel about the environment. This is a chance for people to make their views on the environment known to policy makers, so please make the most of this opportunity to make your opinion count.

I hope you will enjoy filling out the questionnaire, and I look forward to receiving it as soon as possible.

Yours sincerely,

P J Gendall
Professor of Marketing

PS If you have any questions about the survey, or would like to talk about it, please phone me on (06) 356 9099.

Egoistic Appeal
Simple Letter



**MASSEY
UNIVERSITY**

Private Bag
Palmerston North
New Zealand
Telephone 0-6-356 9099
Facsimile 0-6-350 5608

**FACULTY OF
BUSINESS STUDIES**

DEPARTMENT OF
MARKETING

September 1993

ENVIRONMENT SURVEY

Have you ever wanted to have your say about the environment? Well, here's your chance. I'm doing a survey on the environment, and I'd like your views.

Why should you bother to take part? We hear a lot about the environment these days, but it's often hard to know what is really important to New Zealanders. Here's your opportunity to have your voice heard.

Please answer the questionnaire I've enclosed. Then send it back to me in the envelope provided. The envelope is reply paid, so there is no need to put a stamp on it.

How were you chosen? I took your name at random from the electoral rolls. However, all your answers will be completely confidential. The number on the questionnaire is so I can cross your name off when you send it back. This makes sure I don't send you a reminder.

I'll be sending my results to government officials and politicians so they can see how New Zealanders feel about their environment. This is a chance for people to express their views. So, please take this opportunity to make your opinion count.

I hope you will enjoy filling out the questionnaire. I look forward to getting it as soon as possible.

Yours sincerely,

P J Gendall
Professor of Marketing

PS If you have any questions about the survey, or would like to talk about it, please phone me on (06) 356 9099.

Egoistic Appeal
Simple, friendly letter with graphics

September 1993



ENVIRONMENT SURVEY

Hello! I'm Phil Gendall, from Massey University.

Have you ever wanted to have your say about the environment? Well, here's your chance. I'm doing a survey on the environment, and I'd like your views.

Why should you bother to take part? We hear a lot about the environment these days, but it's often hard to know what is really important to New Zealanders. Here's your opportunity to have your voice heard.

Please answer the questionnaire I've enclosed. Then send it back to me in the envelope provided. The envelope is reply paid, so there is no need to put a stamp on it.

How were you chosen? I took your name at random from the electoral rolls. However, all your answers will be completely confidential. The number on the questionnaire is so I can cross your name off when you send it back. This makes sure I don't send you a reminder.



I'll be sending my results to government officials and politicians so they can see how New Zealanders feel about their environment. This is a chance for people to express their views. So, please take this opportunity to make your opinion count.

I hope you will enjoy filling out the questionnaire. I look forward to getting it as soon as possible.

Kind regards

A handwritten signature in cursive script that reads "Phil Gendall".

Phil Gendall
Professor of Marketing

PS If you have any questions about the survey, or would like to talk about it, please phone me on (06) 356 9099.



**MASSEY
UNIVERSITY**

Private Bag 11222
Palmerston North
New Zealand
Telephone 0-6-356 9099
Facsimile 0-6 350 5608

**FACULTY OF
BUSINESS STUDIES**

**DEPARTMENT OF
MARKETING**

Altruistic Appeal
Complex Letter



**MASSEY
UNIVERSITY**

Private Bag 11222
Palmerston North
New Zealand
Telephone 0-6-356 9099
Facsimile 0-6-350 5608

**FACULTY OF
BUSINESS STUDIES**

DEPARTMENT OF
MARKETING

September 1993

ENVIRONMENT SURVEY

Massey University is a member of the International Social Survey Programme (ISSP). Each year the 21 countries in the ISSP carry out a survey on a topic of interest, using a common questionnaire. The countries share the information collected and use it to compare the attitudes and values of people in different parts of the world. This year the topic is the environment.

Membership of the International Social Survey Programme provides a link between New Zealand and countries as different as the USA, Russia, Philippines, Japan, Norway and Israel, and with your cooperation, an opportunity to increase international understanding.

I am writing to you to ask for your help in this international programme. Enclosed is a copy of the ISSP questionnaire on the environment, which I would be grateful if you would answer and return in the envelope provided (there is no need to put a stamp on it).

You may be wondering how you were chosen for the survey. I took a random sample of names from the electoral rolls and your name was one of those selected. However, all your answers will be completely confidential. The number on the questionnaire is to allow me to cross your name off once you have returned your questionnaire and ensure that I don't send you a reminder.

Thank you for your help. I look forward to receiving your completed questionnaire as soon as possible.

Yours sincerely,

P J Gendall
Professor of Marketing

PS If you have any questions about the survey, or would like to talk about it, please phone me on (06) 356 9099.

Altruistic Appeal
Simple Letter



**MASSEY
UNIVERSITY**

Private Bag
Palmerston North
New Zealand
Telephone 0-6-356 9099
Facsimile 0-6-350 5608

**FACULTY OF
BUSINESS STUDIES**

DEPARTMENT OF
MARKETING

September 1993

ENVIRONMENT SURVEY

Here at Massey we are members of an international survey programme involving 21 countries. Each year these countries carry out a survey on a topic of interest and share the answers. This means they can compare the attitudes and values of people in many parts of the world. The topic of this year's survey is the environment. I'm writing to ask for your help in this survey.

Why should you take part? Because, with your help, we can create a link between New Zealand and countries as different as the USA, Russia, Philippines, Japan, Norway and Israel. We can also create better understanding between countries.

Please answer the questionnaire I've enclosed. Then send it back to me in the envelope provided. The envelope is reply paid, so there is no need to put a stamp on it.

How were you chosen for the survey? I took your name at random from the electoral rolls. However, all your answers will be completely confidential. The number on the questionnaire is so I can cross your name off when you send it back. This makes sure I don't send you a reminder.

Thank you for your help. I look forward to getting your questionnaire as soon as possible

Yours sincerely,

P J Gendall
Professor of Marketing

PS If you have any questions about the survey, or would like to talk about it, please phone me on (06) 356 9099.

Altruistic Appeal
Simple, friendly letter with graphics

September 1993

ENVIRONMENT SURVEY



Hello. I'm Phil Gendall, from Massey University.

Here at Massey we are members of an international survey programme involving 21 countries. Each year these countries carry out a survey on a topic of interest and share the answers. This means they can compare the attitudes and values of people in many parts of the world. The topic of this year's survey is the environment. I'm writing to ask for your help in this survey.

Why should you take part? Because, with your help, we can create a link between New Zealand and countries as different as the USA, Russia, Philippines, Japan, Norway and Israel. We can also create better understanding between countries.

Please answer the questionnaire I've enclosed. Then send it back to me in the envelope provided. The envelope is reply paid, so there is no need to put a stamp on it.



How were you chosen for the survey? I took your name at random from the electoral rolls. However, all your answers will be completely confidential. The number on the questionnaire is so I can cross your name off when you send it back. This makes sure I don't send you a reminder.

Thank you for your help. I look forward to getting your questionnaire as soon as possible.

Kind regards

Phil Gendall

Phil Gendall
Professor of Marketing

PS If you have any questions about the survey, or would like to talk about it, please phone me on (06) 356 9099.



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UNIVERSITY**

Private Bag 11222
Palmerston North
New Zealand
Telephone 0-6-356 9099
Facsimile 0-6-350 5608

**FACULTY OF
BUSINESS STUDIES**

**DEPARTMENT OF
MARKETING**

Direct Marketer's Letter



**MASSEY
UNIVERSITY**

Private Bag 11222
Palmerston North
New Zealand
Telephone 0-6-356 9099
Facsimile 0-6-350 5608

**FACULTY OF
BUSINESS STUDIES**

DEPARTMENT OF
MARKETING

Dear Fellow Citizen

Your Attitude to the Environment Matters!!

Please take a few minutes to express it.

Here is your chance to express your views about the Environment. And your views will count!

Massey University has become a member of the International Social Survey Programme. Each year the 21 countries in the ISSP carry out an important survey on a topic of national and international interest. **This year the topic is one of vital concern to all caring New Zealanders: The Environment.**

Please help us to express the New Zealand view, by completing the enclosed questionnaire.

Your views are important, because results of the survey are collated internationally, providing an opportunity to increase understanding between countries on vital issues.

Please fill out the questionnaire and return it to me as soon as possible. All your answers are confidential. The number on the questionnaire is so that I can cross your name off once you have returned it and ensure that I don't send you a reminder.

Kind regards

Phil Gendall
Professor of Marketing

PS Your input really is important. Don't miss this opportunity to have your say and make it count.

PPS If you have any questions or would simply like to talk about the survey, please call me on (06) 356 9099.

Second reminder
Altruistic appeal
Simple, friendly letter with graphics



**MASSEY
UNIVERSITY**

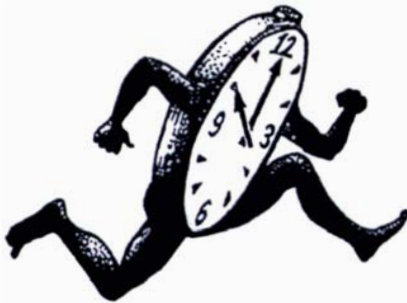
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New Zealand
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Facsimile 0-6-350 5608

**FACULTY OF
BUSINESS STUDIES**

DEPARTMENT OF
MARKETING

November 1993

URGENT



Yes, it's me again!

Near the end of September I sent you a questionnaire as part of an international survey on attitudes to the environment. Unfortunately I still haven't had a reply.

Perhaps you haven't got around to answering the questionnaire yet. Or maybe you don't have strong views on the environment. Whatever the reason, your ideas and opinions are as important as anyone else's. Without them, this survey won't properly represent the attitudes of all New Zealanders.

Please take a few minutes to help me by answering your questionnaire and sending it back.

Kind regards,

Phil Gendall
Professor of Marketing



PS Thank you, if you have already
returned your questionnaire.

RESPONSE RATE DETAILS: ENVIRONMENT 1993

Table A1 Response Details for Letter Appeals Experiment

Treatment	Outcome				Response Rate (%)
	Valid	Gone No Address	Ineligible	Refusal	
Altruistic Appeal					
Complex letter	151	5	4	13	75.5
Simple letter	147	5	2	11	72.5
Simple, friendly letter	144	6	1	10	71.3
Simple, friendly letter with graphics	151	7	1	9	75.1
Egoistic Appeal					
Complex letter	142	3	2	11	69.6
Simple letter	136	3	1	20	66.3
Simple, friendly letter	135	7	2	9	67.5
Simple, friendly letter with graphics	125	6	1	18	61.9
Direct Marketer's Letter	137	9	1	14	68.8

DESIGN DETAILS: LETTER APPEALS EXPERIMENT

Figure A1 Cover Letter: Length and Readability Statistics

Altruistic Appeal	Egoistic Appeal
Complex Length: 268 words Flesch: 53 Fog: 15	Complex Length: 263 words Flesch: 57 Fog: 15
Simple Length: 240 words Flesch: 71 Fog:10	Simple Length: 240 words Flesch: 73 Fog: 10
Simple and friendly Length: 246 words Flesch: 70 Fog: 10	Simple and friendly Length: 246 words Flesch: 72 Fog: 10
Simple and friendly with graphics Length: 246 words Flesch: 70 Fog: 10	Simple and friendly with graphics Length: 246 words Flesch: 72 Fog: 10
Direct Marketer's Letter Length: 213 words Flesch: 58 Fog: 12	

Note: 'Flesch' is the Flesch Reading Ease score
 'Fog' is Gunning's Fog Index.

Table A2 Interpretation of Flesch Reading Ease Scores

Score	Reading Difficulty	Approx. Grade Level
90-100	Very easy	4 th
80-90	Easy	5 th
70-80	Fairly easy	6 th
60-70	Standard	7 th – 8 th
50-60	Fairly difficult	Some High School
30-50	Difficult	High School-College
0-30	Very difficult	College level and up

APPENDIX B
SURVEY DETAILS: COMPLEX COVER DESIGNS EXPERIMENT

- Response rate details: Roles of Men and Women 1994

RESPONSE RATE DETAILS: ROLES OF MEN AND WOMEN 1994

Table B1 Response Details for Complex Cover Designs Experiment

Cover Design	Outcome				Response Rate (%)
	Valid	Gone No Address	Ineligible	Refusal	
Simple A1	168	22	3	11	65.9
Simple A2	161	33	5	13	67.4
Complex B1	165	19	4	12	64.5
Complex B2	169	20	4	13	66.3
Complex C1	166	26	3	20	66.4
Complex C2	147	32	7	13	61.5

APPENDIX C
SURVEY DETAILS: CONTRAST IN COVER DESIGN EXPERIMENT TWO

- Response rates by wave: Shopping in New Zealand 1998
- Postcards used in Shopping in New Zealand 1998

RESPONSE RATES BY WAVE: SHOPPING IN NEW ZEALAND 1998

Table C1 Response Rates Wave One

Outcome	Cover Design		
	Black	White	Total
Valid	409	397	806
GNA	80	72	152
Ineligible	6	8	14
Refused	3	7	10
Not returned	562	575	1137
Total	1060	1059	2119

Table C2 Response Rates Waves Two and Three Combined

Outcome	Reminder Treatment and Cover Design					
	Questionnaire With Reminder		Reminder Letter Only		Postcard Reminder	
	Black	White	Black	White	Black	White
Valid	73	83	66	60	58	64
GNA	26	18	23	18	17	10
Ineligible	5	6	5	2	3	3
Refused	6	5	1	2	1	0
Not returned	80	85	98	108	100	111
Total	190	197	193	190	179	188

POSTCARDS USED IN SHOPPING IN NEW ZEALAND 1998

SHOPPING IN NEW ZEALAND



Recently I sent you a questionnaire on shopping in New Zealand. I am writing to check that you received the questionnaire, to remind you of the survey and to ask again for your help.

Shopping is a part of most people's lives and the retail sector has a major role in the New Zealand economy. Your answers to this survey will help to create a better understanding of this important activity, so I hope you will decide to take part.

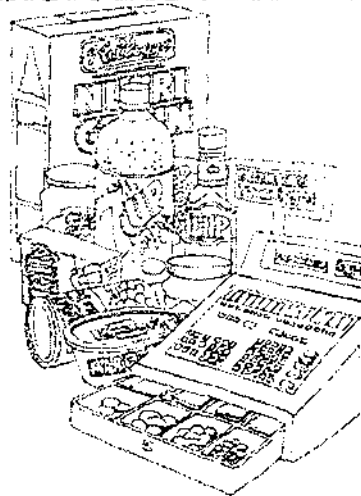
Because only a small number of people were selected for the survey, it is very important that I set a completed questionnaire from you. And I would like to assure you that all your answers will be strictly confidential.

Yours sincerely,

P J Gendall
P J Gendall
Professor of Marketing

PS If you need another questionnaire, please phone me collect on (06) 350-5582.

SHOPPING IN NEW ZEALAND



Recently I sent you a questionnaire on shopping in New Zealand. I am writing to check that you received the questionnaire, to remind you of the survey and to ask again for your help.

Shopping is a part of most people's lives and the retail sector has a major role in the New Zealand economy. Your answers to this survey will help to create a better understanding of this important activity, so I hope you will decide to take part.

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Yours sincerely,

P J Gendall
P J Gendall
Professor of Marketing

PS If you need another questionnaire, please phone me collect on (06) 350-5582.

SHOPPING IN NEW ZEALAND

YOUR OPINIONS ARE IMPORTANT



In June I sent you a questionnaire on shopping in New Zealand. Unfortunately I still haven't received a reply.

Perhaps you haven't got around to answering the questionnaire yet, or don't have strong views on the subject. Whatever the reason, your ideas and opinions are as important as anyone else's and, without them, this survey won't properly represent the attitudes and behaviour of all New Zealanders.

Please take a few minutes to help me with this survey by answering your questionnaire and returning it in the envelope provided.

Yours sincerely,

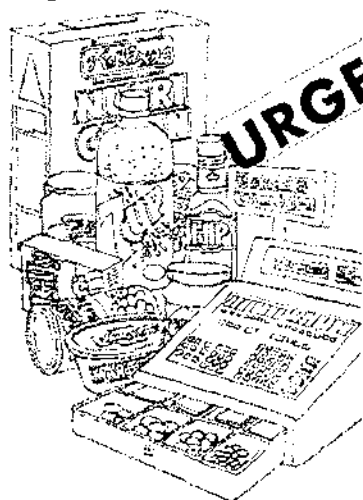
P J Gendall

P J Gendall
Professor of Marketing

PS If you need another questionnaire, please phone me collect on (063) 350-5582.

SHOPPING IN NEW ZEALAND

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Please take a few minutes to help me with this survey by answering your questionnaire and returning it in the envelope provided.

Yours sincerely,

P J Gendall

P J Gendall
Professor of Marketing

PS If you need another questionnaire, please phone me collect on (063) 350-5582.

APPENDIX D
SURVEY DETAILS: LIKEABILITY EXPERIMENT ONE

- Twelve original Environment 2000 cover designs
- Sample composition for Environment 2000 pre-test
- Questionnaire used in Environment 2000 pre-test
- Initial likeability ratings for Environment 2000 cover designs
- Analyses of wave responses: Environment 2000

A

New Zealanders' Attitudes to the Environment

Department of Marketing
International Social Survey Programme
2000

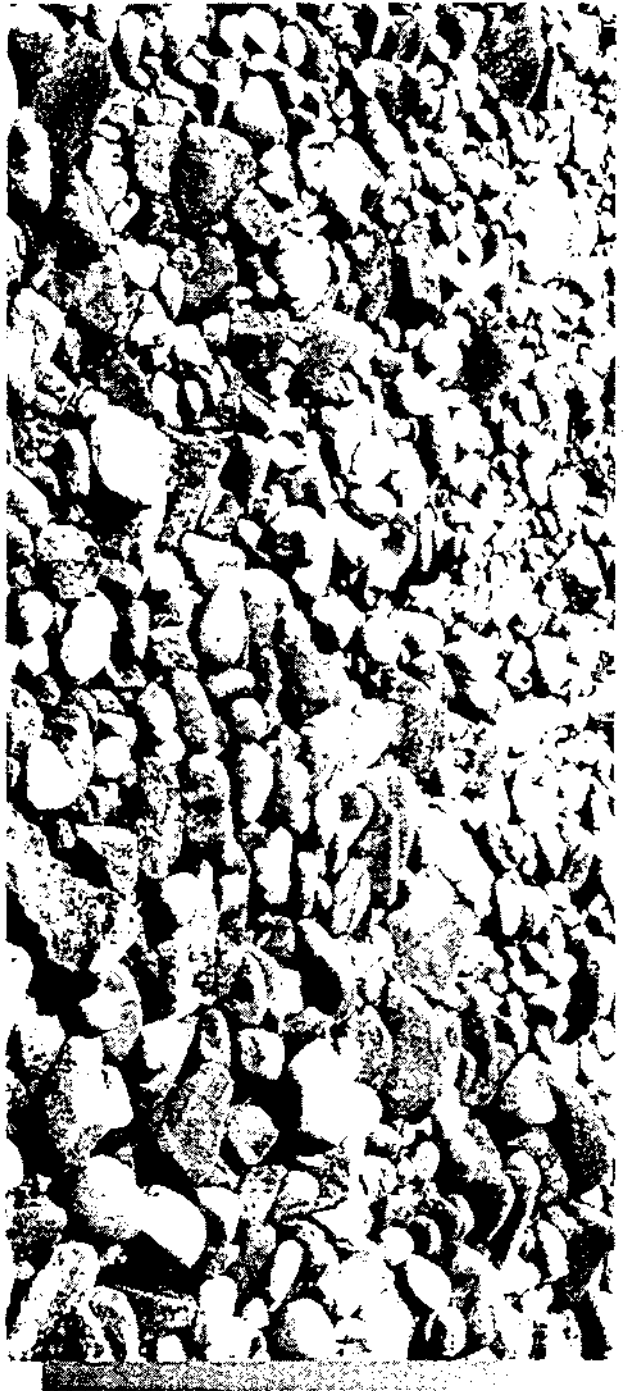


Massey University

B

New Zealanders' Attitudes to the Environment

Department of Marketing
International Social Survey Programme
2000



Massey University

C

New Zealanders' Attitudes to the Environment

Department of Marketing
International Social Survey Programme
2000

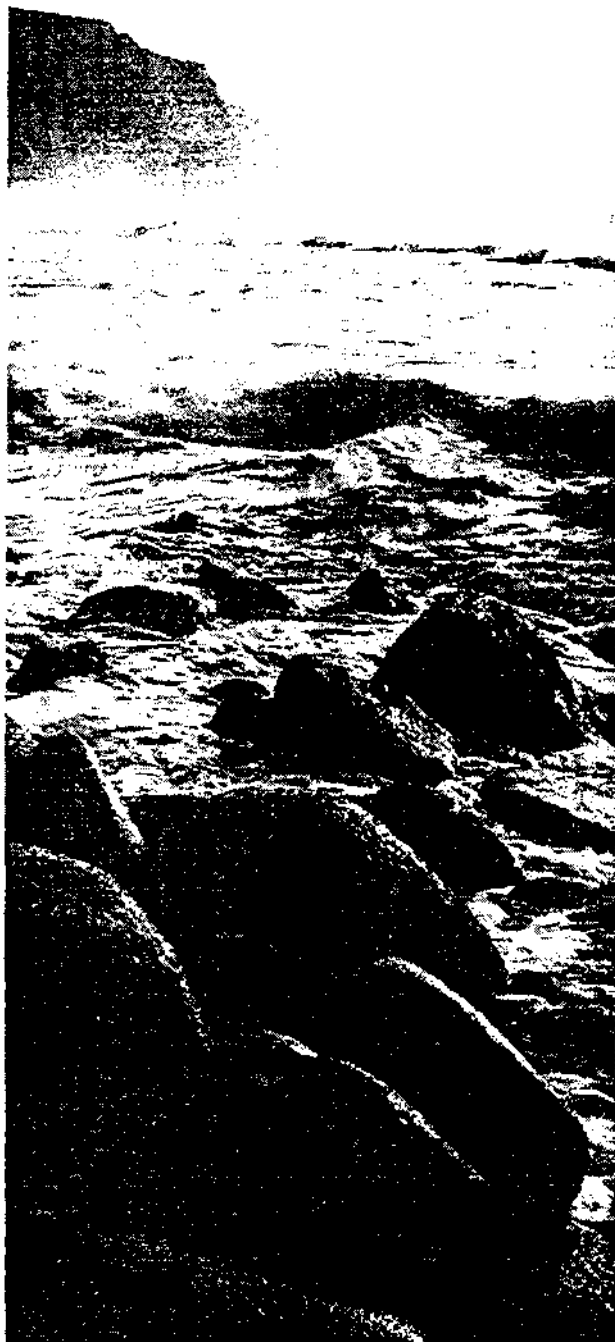


Massey University

D

New Zealanders' Attitudes to the Environment

Department of Marketing
International Social Survey Programme
2000



Massey University

E

New Zealanders' Attitudes to the Environment

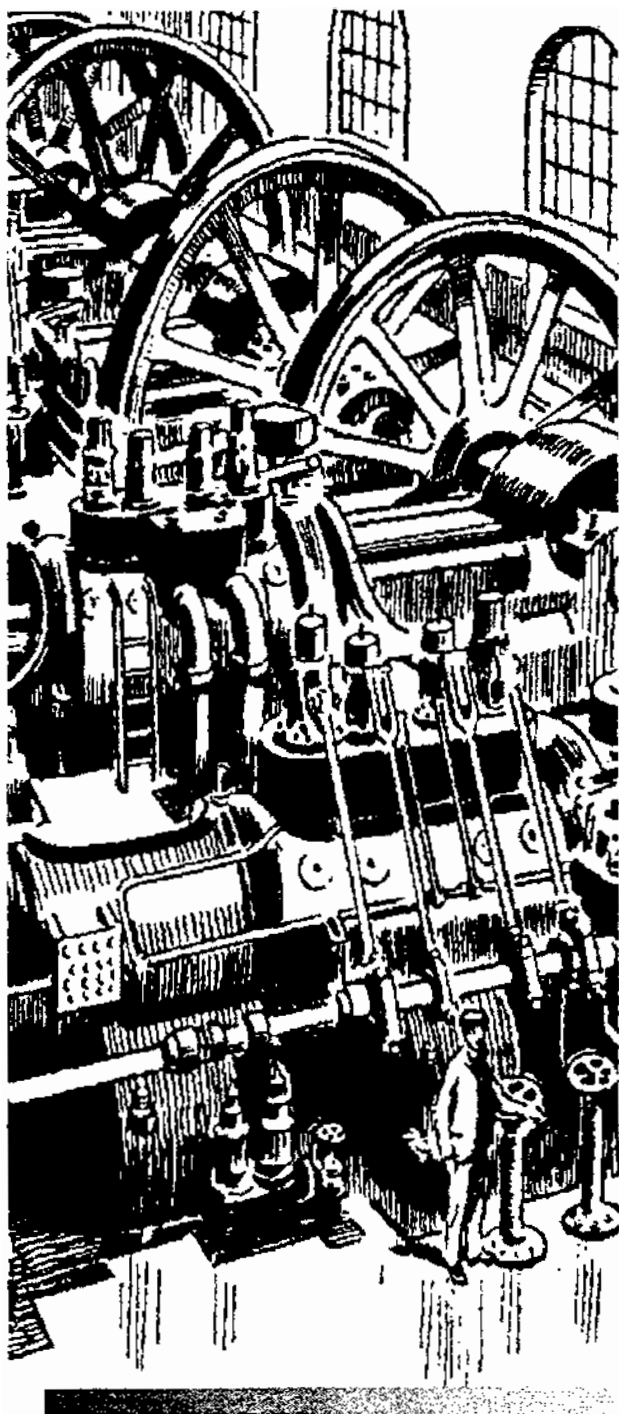
Department of Marketing
International Social Survey Programme
2000



F

New Zealanders' Attitudes to the Environment

Department of Marketing
International Social Survey Programme
2000



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G

New Zealanders' Attitudes to the Environment

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International Social Survey Programme
2000



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H

New Zealanders' Attitudes to the Environment

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International Social Survey Programme
2000



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New Zealanders' Attitudes to the Environment

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International Social Survey Programme
2000



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J

New Zealanders' Attitudes to the Environment

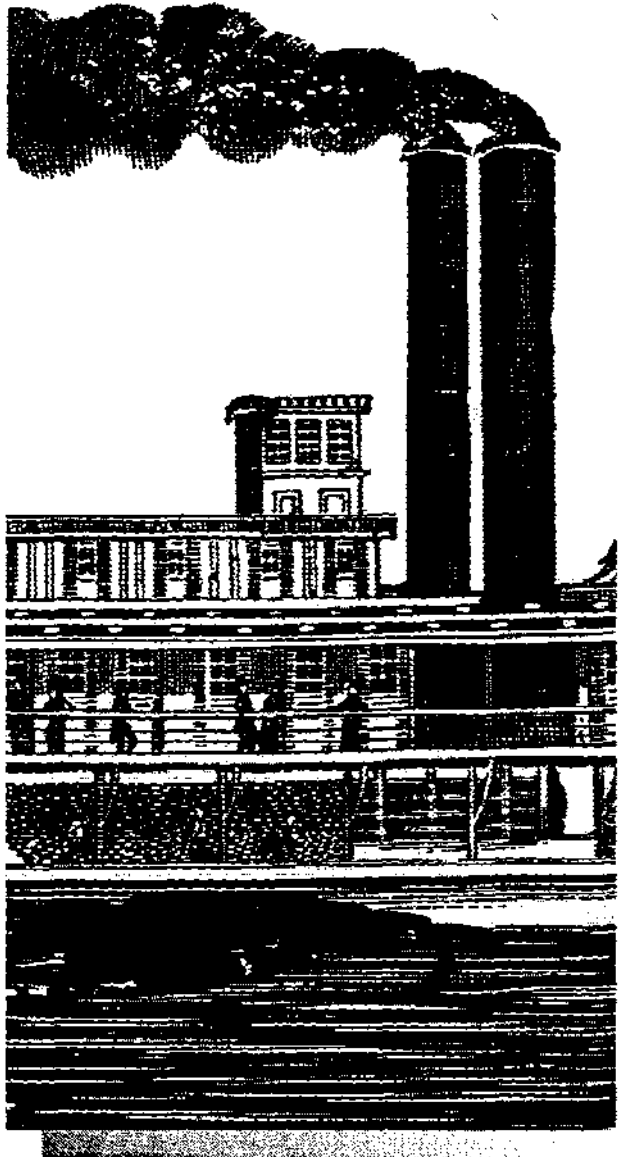
Department of Marketing
International Social Survey Programme
2000



K

New Zealanders' Attitudes to the Environment

Department of Marketing
International Social Survey Programme
2000

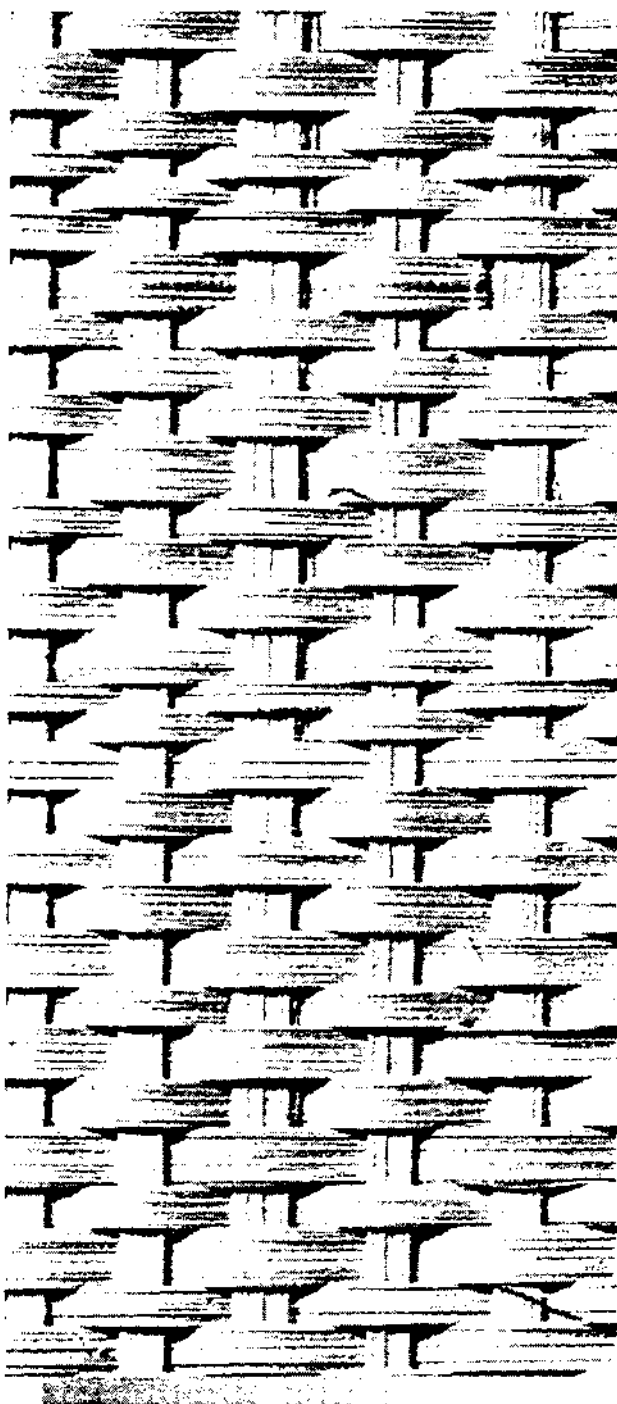


Massey University

L

New Zealanders' Attitudes to the Environment

Department of Marketing
International Social Survey Programme
2000



SAMPLE COMPOSITION FOR ENVIRONMENT 2000 PRE-TEST

Table D1 Convenience Sample Composition: Environment 2000 Cover Designs Evaluation

Sex	Age Group		Total
	Under 30	Over 30	
Male	15	28	43
	17%	32%	49%
Female	15	30	45
	17%	34%	57%
Total	30	58	88
	34%	66%	100%

Massey University
DEPARTMENT OF MARKETING

Questionnaire Cover Designs

Cover A	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree				
I like the look of this cover	1	2	3	4	5				
This cover stands out	1	2	3	4	5				
I think this cover would encourage people to do the survey	1	2	3	4	5				
This cover would be easy to remember	1	2	3	4	5				
This cover is relevant to the survey topic	1	2	3	4	5				
How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much

Cover B	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree				
I like the look of this cover	1	2	3	4	5				
This cover stands out	1	2	3	4	5				
I think this cover would encourage people to do the survey	1	2	3	4	5				
This cover would be easy to remember	1	2	3	4	5				
This cover is relevant to the survey topic	1	2	3	4	5				
How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much

Cover C	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree				
I like the look of this cover	1	2	3	4	5				
This cover stands out	1	2	3	4	5				
I think this cover would encourage people to do the survey	1	2	3	4	5				
This cover would be easy to remember	1	2	3	4	5				
This cover is relevant to the survey topic	1	2	3	4	5				
How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much

Cover D	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree				
I like the look of this cover	1	2	3	4	5				
This cover stands out	1	2	3	4	5				
I think this cover would encourage people to do the survey	1	2	3	4	5				
This cover would be easy to remember	1	2	3	4	5				
This cover is relevant to the survey topic	1	2	3	4	5				
How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much

Cover E	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree				
I like the look of this cover	1	2	3	4	5				
This cover stands out	1	2	3	4	5				
I think this cover would encourage people to do the survey	1	2	3	4	5				
This cover would be easy to remember	1	2	3	4	5				
This cover is relevant to the survey topic	1	2	3	4	5				
How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much

Cover F	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree				
I like the look of this cover	1	2	3	4	5				
This cover stands out	1	2	3	4	5				
I think this cover would encourage people to do the survey	1	2	3	4	5				
This cover would be easy to remember	1	2	3	4	5				
This cover is relevant to the survey topic	1	2	3	4	5				
How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much

Cover G	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
I like the look of this cover	1	2	3	4	5					
This cover stands out	1	2	3	4	5					
I think this cover would encourage people to do the survey	1	2	3	4	5					
This cover would be easy to remember	1	2	3	4	5					
This cover is relevant to the survey topic	1	2	3	4	5					
How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much	

Cover H	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
I like the look of this cover	1		2		3		4		5	
This cover stands out	1		2		3		4		5	
I think this cover would encourage people to do the survey	1		2		3		4		5	
This cover would be easy to remember	1		2		3		4		5	
This cover is relevant to the survey topic	1		2		3		4		5	
How much do you like this cover?	Don't like it at all		1	2	3	4	5	6	7	Like it very much

Cover I	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
I like the look of this cover	1		2		3		4		5	
This cover stands out	1		2		3		4		5	
I think this cover would encourage people to do the survey	1		2		3		4		5	
This cover would be easy to remember	1		2		3		4		5	
This cover is relevant to the survey topic	1		2		3		4		5	
How much do you like this cover?	Don't like it at all		1	2	3	4	5	6	7	Like it very much

Cover J	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree				
I like the look of this cover	1	2	3	4	5				
This cover stands out	1	2	3	4	5				
I think this cover would encourage people to do the survey	1	2	3	4	5				
This cover would be easy to remember	1	2	3	4	5				
This cover is relevant to the survey topic	1	2	3	4	5				
How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much

Cover K	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree				
I like the look of this cover	1	2	3	4	5				
This cover stands out	1	2	3	4	5				
I think this cover would encourage people to do the survey	1	2	3	4	5				
This cover would be easy to remember	1	2	3	4	5				
This cover is relevant to the survey topic	1	2	3	4	5				
How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much

Cover L	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree				
I like the look of this cover	1	2	3	4	5				
This cover stands out	1	2	3	4	5				
I think this cover would encourage people to do the survey	1	2	3	4	5				
This cover would be easy to remember	1	2	3	4	5				
This cover is relevant to the survey topic	1	2	3	4	5				
How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much

Which cover do you like the most? _____

Why do you say that?

Which cover do you like the least? _____

Why do you say that?

Finally, some details about you.

Male ☐

Female ☐

Age under 30 ☐

Age between 30 and 60 ☐

Age over 60 ☐

THANK YOU VERY MUCH FOR YOUR HELP.

ANALYSES OF WAVE RESPONSES: ENVIRONMENT 2000

Table D5 Response Rates: Waves One and Two

Outcome	Cover Design					Total
	Seascape	Ferns	Flax Mat	Tower	No Design	
Valid response	116	109	118	128	140	611
Gone-no-address	20	20	21	23	19	103
Ineligible	3	4	3	3	3	16
Refusal	6	4	6	6	2	23
Not returned	255	263	252	241	236	1247
Total	400	400	400	400	400	2000
Response rate %	30.8	29.0	31.4	34.2	37.0	32.5

Table D6 Response Rates: Wave 3 – Postcard Reminder

Outcome	Cover Design					Total
	Seascape	Ferns	Flax Mat	Tower	No Design	
Valid response	53	52	56	47	55	263
Gone-no-address	3	11	6	5	2	27
Ineligible	3	3	3	4	1	14
Refusal	3	2	-	4	2	11
Not returned	193	195	187	181	176	932
Total	255	263	252	241	236	1247
Response rate %	21.3	20.9	23.0	20.2	23.6	21.8

APPENDIX E
SURVEY DETAILS: LIKEABILITY EXPERIMENT TWO

- Five original Social Networks 2001 covers
- Sample composition for Social Networks 2001 pre-test
- Initial likeability ratings for Social Networks 2001 cover designs
- Questionnaire used in mall intercept survey

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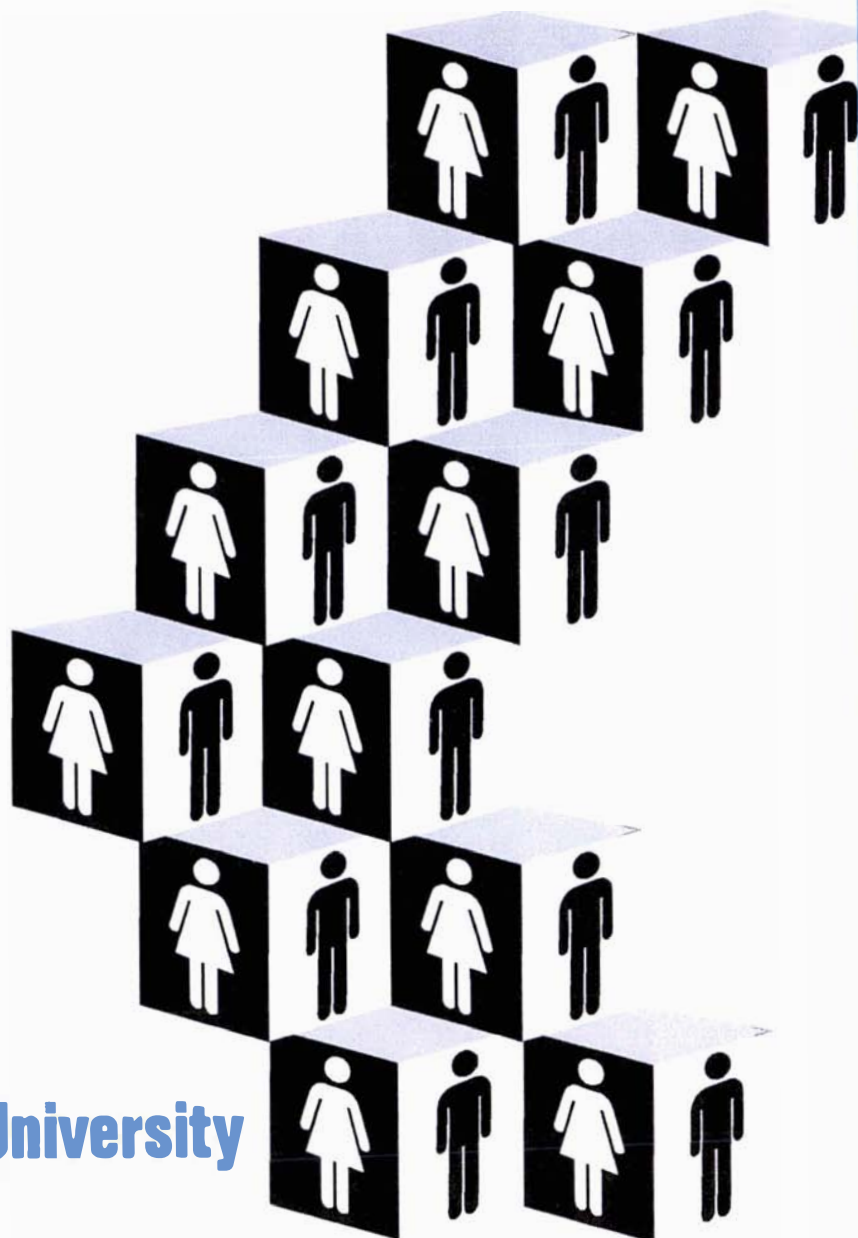
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International Social
Survey Programme
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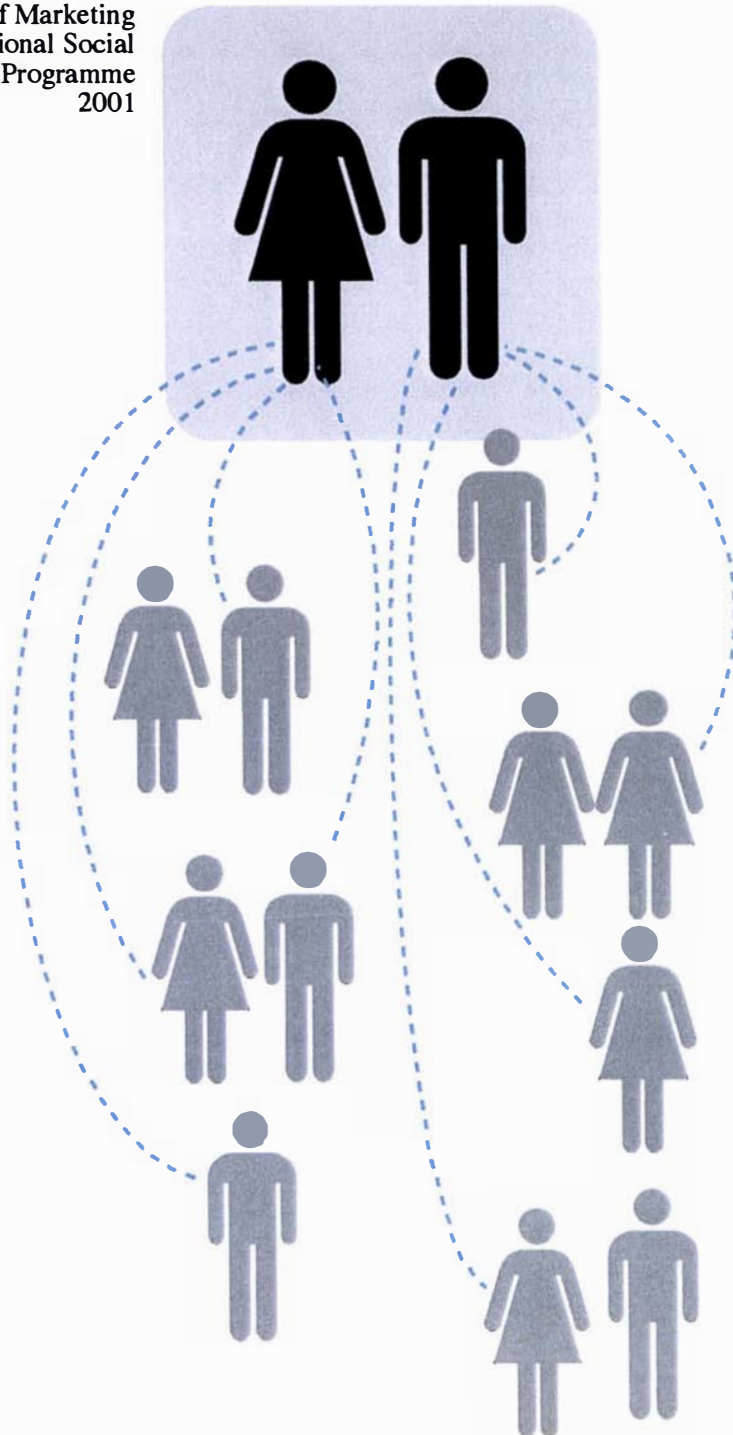


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2001

SAMPLE COMPOSITION FOR SOCIAL NETWORKS 2001 PRE-TEST

Table E1 Mall Intercept Sample: Social Networks Cover Designs Evaluation

Sex	Age Group			Total
	18-30	31-50	51+	
Male	37	34	35	106
	17%	15%	16%	48%
Female	37	41	39	117
	17%	18%	18%	52%
Total	74	75	74	223
	33%	34%	34%	100%

INITIAL LIKEABILITY RATINGS FOR SOCIAL NETWORKS 2001 COVER DESIGNS

Table E2 Average Likeability Scores for Social Networks Cover Designs

Cover Design	Mean Likeability ¹	Std Deviation
Circle (F)	4.70	1.39
Blocks (D)	4.41	1.33
Pyramid (G)	4.21	1.44
Conveniences (C)	4.16	1.45
No Design (E)	2.43	1.57

1. Based on response to “How much do you like this cover?”, where 1 = Don’t like it at all and 7 = Like it very much.

ID: _____

**Massey University
DEPARTMENT OF MARKETING**

**Questionnaire Cover Designs
2001**

Cover A

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover B

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover C

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover D

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover E

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover F

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover G

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

PLEASE TURN OVER →

Cover L

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover K

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover J

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover I

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover H

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover M

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover N

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Cover O

How much do you like this cover?	Don't like it at all	1	2	3	4	5	6	7	Like it very much
----------------------------------	-------------------------	---	---	---	---	---	---	---	----------------------

Finally, some details about you:

Male ☐

Female ☐

Your age group: 18-30 ☐

31-50 ☐

51+ ☐

THANK YOU VERY MUCH FOR YOUR HELP

ID: _____

Massey University
DEPARTMENT OF MARKETING

Questionnaire Cover Designs
2001

Cover A

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover B**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover G**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover F**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover E**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover D**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover C**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much

PLEASE TURN OVER →

Cover H

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover I**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover J**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover K**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover L**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover M**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover N**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much**Cover O**

How much do you like this cover?

Don't like it
at all

1 2 3 4 5 6 7

Like it
very much

Finally, some details about you:

Male

☐

Female

☐

Your age group:

18-30

☐

31-50

☐

51+

☐**THANK YOU VERY MUCH FOR YOUR HELP**