PERSONALIZATION OF MAIL SURVEYS ON GENERAL PUBLIC AND OTHER POPULATIONS: RESULTS FROM NINE EXPERIMENTS

Don A. Dillman, Washington State University, Virginia Lesser, Oregon State University,
Bob Mason, Oregon State University, John Carlson, University of Idaho, Fern Willits, Pennsylvania State University,
Rob Robertson, University of New Hampshire, and Bryan Burke, Washington State University
Don A. Dillman, SESRC, Washington State University, Pullman, WA 99164-4014

Key Words: Mail surveys, personalization, response rates

Introduction

Since 1940, dozens of articles have been published on the topic of how personalization of cover letters influences response to mail surveys. Yet, it is far from clear to what extent personalization influences survey response rates. Some researchers have reported that survey response is improved by personalization (e.g., Longworth, 1953; Slocum et al., 1956; Linsky, 1965; Myers and Haug, 1969; Dillman and Frey, 1974; Carpenter, 1974; Kerin and Peterson, 1977; Taylor and Jenkins, 1982; de Leeuw and Hox, 1988). Whereas others have reported no improvement (e.g., Weilbacher et al., 1952; Bradt, 1955; Kephart and Bressler, 1958; Mason et al., 1961; Kimball, 1961; Scott, 1961; Watson, 1965; Ford, 1968; Houston and Jefferson, 1975; Snow et al, 1986). Still, others have suggested that response rates actually decline as a result of personalization (e.g., Andreasen, 1970; Houston and Nevin, 1977).

One of the difficulties associated with interpreting results from past studies on personalization is that it has been accomplished in different ways. These methods have included inserting names and addresses onto letters, the use of salutations, real signatures, postscripts, letterhead stationery, phone calls, variations in the framing of the appeal (e.g., altruistic vs. egoistic), individually typed vs. mimeographed letters, and combinations of these.

The purpose of this paper is to report results from nine recent personalization experiments in an effort to clarify whether certain types of personalization do or do not influence response to mail surveys. Revisiting personalization seems important for several reasons. In addition to the ambiguity of past research, modern word processing equipment has made it possible to insert personalized qualities into letters in many ways, including insertion of one's name, address and other known features of the recipient. In light of the ease of person-alizing letters, perhaps it has now lost any effect that it once had. In addition, a review of the literature resulted in finding no articles that had been published within the past 10 years.

Previous Research

Personalization of correspondence in mail surveys has been defined as "any technique intended to cause the individual respondents to feel that they are receiving individual, personal consideration and attention from the survey's sponsor" (Worthen and Valcarce, 1985). It refers to how one has communicated and not just whether communication occurs (Kerin, 1974). Practically, it can perhaps be thought of as a continuum. At one end might be a copied letter with preprinted signature, and a general salutation such as Dear Resident (or occupant). At the other extreme it might include the use of real stationery that uses color ink and high quality stock, insertion of name and address, salutation of Dear Mr./Mrs. (name), and individually applied signatures with a P.S. that is handwritten. It is also possible, albeit perhaps impractical, to utilize handwritten letters.

Worthen and Valcarce (1985) have reported a meta-analysis of 26 personalization experiments in which they attempted to reach a conclusion about its effectiveness. They found that the results favored personalization in 18 of the studies, but not the others. In 11 of the 12 instances where significance was achieved, personalized correspondence had higher response rates than did the unpersonalized procedures. Thus, it appears from this review of studies that personalization is more likely to improve response than to decrease it. Overall, for the 26 studies, response rates to personalized treatments average 45.3 (SD21.4) to 41.1 (SD18.7), suggesting that to the extent personalization improves response rates the effect has been relatively small.

Other meta-analyses of response rates do little to clarify its effects. Three subjective assessments of the effects of personalization (Scott, 1961; Kanuk and Berenson, 1975; Linsky, 1975) in relation to all other factors suggest that it has a minor positive effect on response rates. Two other meta-analyses (Duncan, 1979; Harvey, 1987) assess it as having a somewhat more positive effect, as reported by Dillman (1991). However, four quantitative meta-analyses (Heberlein and Baumgartner, 1979; Eichner and Habermehl, 1981; Goyder, 1982; Fox et al., 1988) all conclude that personalization

Research reported here was conducted under Western Regional Project W-183, Rural and Agricultural Surveys, supported by USDA-Cooperative State Research, Education and Extension Service, and participation of Agricultural Experiment Stations in New Hampshire, Idaho, Oregon, Pennsylvania, and Washington. Appreciation is expressed to Arrick Jackson who helped with the literature search and interpretation. Literature citations and additional study details have been omitted from this version of the paper because of page limitations, but are available from dillman@wsu.edu.

has no effect or is unimportant.

These extensive reviews by others, as well as our own reading of more than 40 papers published in the 50-year period prior to the 1990s, lead us to the following conclusions. The reporting of significant positive effects outnumber by a large amount the reporting of significant negative effects. However, it is also apparent that the number of studies reporting insignificant results in either direction comes close to and may exceed the number reporting positive results.

We attempted to categorize the articles we located based upon what personalization element(s) was (were) tested. But, the fact that personalization has been operationalized in so many different ways, and with so many different combinations of individual elements (e.g., envelope labels vs. typing of address on envelope, handwritten salutations, postscripts or entire letters, group salutations vs. inserted names, stationery vs. mimeographed letters, real signatures vs. stamped vs. printed, black vs. blue contrasting signatures) made it extremely difficult to develop categories with enough studies included so that results would be meaningful. In addition, the application of experiments to quite different populations in which other elements known to consistently improve response rates (e.g., multiple contacts and token incentives in advance), resulted in widely different overall response rates. Finally, many of the papers did not report essential information, ranging from exact sample sizes to what other elements were used to stimulate response. We thus concluded that any attempts to draw all of the existing literature together through an additional meta-analysis would be futile.

Finally, we were struck by how the times have changed with respect to personalization procedures. Attempts to personalize correspondence prior to the 1980s were extremely laborious. At that time, it was necessary to mass copy letters and then individually insert names and addresses with matching font and ink appearance, as well as type envelope addresses by hand. The ability to manipulate the internal wording of letters (e.g., "Thank you Mr. Dillman for expressing interest in Bountiful dog food for your Boston terrier, Crickett.") and its much greater use in sweepstakes mailings and other marketing efforts, may mean that the meaning of personalization has changed from prior to the early 1980s when virtually all of the available research was conducted.

Based upon concern over doing all things appropriate to maintain response rates at a time when response rates to surveys may be decreasing, the lack of strong con-sistent evidence from past research, and our belief that the meaning of personalization might be changing, additional research seemed warranted.

Why Personalization May Be Effective

There are two reasons to expect that personalization of survey materials sent to respondents may improve response.

Cialdini (1993) suggests that as a general rule, "a person who acts in a certain way toward us is entitled to a similar return action." In the case of a respondent that receives a personalized cover letter (i.e., with letterhead, their own name, and a handwritten signature), she/he may feel that since the researcher took the time to personalize the letter she/he should take the time to participate in his/her survey.

A second argument for how personalization could increase response rates is based upon social conditioning. The use of proper names, particularly that of respondents, probably increases the attention that is given to the cover letter by them. In young adults, eye-tracking experiments suggested that the use of proper names (versus pronouns) lead to increased reading time (Kennison et al., 1997). At a theoretical level, the linguistic structure of the brain seems to be responsible. "Recent studies have revealed that proper names are neuropsychologically and anatomically processed in a manner that differs from the processing of common nouns (Yasuda et al., 2000; Valentine et al., 1996).

Social conditioning teaches people to expect that important information relevant to themselves is likely to follow the verbal or written expression of their name. Research by Mandel, Jusczyk, and Pisoni cited in Mandel-Emer (1997) suggested that 4-1/2 month old infants listen longer to their own names over the names of other infants. Parents successfully use infants names to encourage them to perform particular activities and teach new words. When verbal messages contain a subject's own name, they reported hearing the message over five times more frequently than otherwise (Loftus, 1974, cited in Pashler, 1998). Oswald, Taylor, and Treisman (1960), as reported in Pashler (1998), noticed that subjects at sleep are often awakened when their own name is spoken. Because a response to one's own name appears to be very deeply conditioned and operates at a subconscious level, even people that are skeptical of personalized letters as a gimmick may still respond with increased attention to a cover letter.

These reasons for expecting a positive effect from personalization are not mutually exclusive. That is, we might expect that social conditioning and a sense of reciprocal obligation to act in concert with one another improves response rates. It might be reasoned further that personalization would be more effective with some survey populations than others. For example, when surveying a group with which people have an identity, e.g., members of a voluntary association, then a general salutation (e.g., Dear Member of the XYZ Club) may receive attention because of a person's identity with being a member of that group, and perhaps encourage a feeling of reciprocal obligation. However, a general salutation such as "Dear Resident" does not have potentially positive meaning to people, nor does it likely encourage a feeling of reciprocal

obligation. Further, it appears that salience of a request to be surveyed, i.e., the extent to which it is seen as interesting or useful to respondents, increases survey response rates (Heberlein and Baumgartner, 1978; Carley-Baxter and Dillman, 2000). Therefore, being contacted because of a group identification people know they have, and may value, would encourage one to respond.

To gain further insight into this possibility, we examined the past studies available to us in order to assess whether personalization was more effective with specialized groups than with the general public. Of 37 surveys categorized, 22 used identified or specialized groups as their samples, and 15 used the general public as their popu-lation of study. Eight of the 22 identified or specialized samples reported personalization to be a significant factor for increasing response rates. However, a greater propor-tion – 7 of the 13 general public samples – reported significant positive effects (Longworth, 1953; Frazier and Bird, 1958; Roeher, 1963; Myers and Haug, 1969; Taylor and Jenkins, 1982; Nederhof, 1983; de Leeuw and Hox, 1988).

We hypothesize that personalization of cover letters, real stationery, and individual signatures will improve response to general public surveys that use a general group identification of low salience to that population (e.g., Dear Resident). We also hypothesize that personal-ization of cover letters through addition of names, addresses, real stationery, and individual signature will not improve response rates to specialized groups with a group identification that has a salience to that population (i.e., Dear ATV Owner or Dear Lottery Winner). Being identified as part of a group such as Dear ATV Owner may improve response rates over the use of a name and address.

Lau (1989) points out that being identified as a member of a reference group can increase salience. Group identification can be defined as the collective awareness of the group as a distinct social entity (Lau, 1989, pg. 220), and we can view groups in two ways. First, groups can be viewed as collectives that hold meetings, develop programs, set goals, and make plans to achieve these goals. This type of group requires a lot of face-to-face interaction. The second group can be described as individuals within society who have common interests but are unaware of the number of people within the identified group who share their interests due to lack of face-to-face interaction (e.g., meetings, functions, etc.). From either perspective, group identification refers to a psychological attachment to the group. This is not the same as objective membership in a group—one need not be a member of a group to identify with it, nor do all objective members of a group identify with it (Lau, 1989, pg. 221). This paper is primarily concerned with this second group.

Procedures

All of the studies examined here were conducted by participants in a research committee organized under the USDA-Cooperative State Research, Education and Extension Service. It was agreed that similar experiments would be conducted on populations available to the researchers in their individual states.

Table 1 summarizes the main procedural characteristics of these studies. They were conducted between 1994 and 2001. Five were of general public populations and included one nationwide survey, a statewide survey, and three county or city surveys. Four group surveys were conducted and included both common interest and more formally organized groups.

The questionnaires were on various topics that generally included both opinion and behaviors. In an effort to focus these tests on situations in which efforts beyond personalization were made to improve response, a minimum of three contacts were made for all of the surveys. In five instances, four contacts were made.

All of the personalized treatments included the insertion of the sampled person's name and address, use of the sponsor's stationery, and individually applied signatures to each letter. The decision to utilize a combination of three elements was made because of our belief that the combination would make a stronger test than a single element would, and it represented a practical alternative for most surveys. The unpersonalized versions, against which comparisons were made, were mass copied letters containing salutations appropriate to the group, as listed in Table 1. These letters were for all cases except study 9, mass copied, in black and white. A third treatment with "date only" and no salutation was included as additional comparisons in studies 7 and 8, as shown in Table 2.

In the calculation of chi-square statistical tests, the number of mailed out questionnaires has been adjusted downward to eliminate return to senders. In certain cases shown in these tables, additional variables were subjected to experimentation, as revealed in Tables 1 and 2. In such cases, chi-squares have been calculated for the individual treatments as well as the combined treatments.

Findings

For the five general public surveys, statistical significance was achieved for only two of them – Oregon and Pennsylvania county surveys – where the personalization treatments did better than the unpersonalized ones. The consistent trend for the final response rates across all five general public surveys is for the personalization treatments to do better than the unpersonalized. The advantage for personalization at the subtreatment level, where eight comparisons could be made, ranged from 3.0 to 11.9 percentage points. The one exception to this trend was the nationwide survey on health care issues, where after three contacts the unpersonalized version led by 1.4 percentage points. However, even here the application of a fourth contact with financial incentive improved the response for the personalized version to 45.5% vs. 41.8% for the

unpersonalized version.

A different picture emerges from the group survey comparisons. None of the four overall comparisons was significant, and only one of the nine subgroup comparisons reached significance. In this case, a reversal was observed – the unpersonalized Oregon ATV Owner treatment that used real stamps for the outgoing, as well as the return envelopes, achieved a significantly higher 76.3% response rate compared to 68.4% for the person-alized version. Among the other eight comparisons, the personalized versions had higher response rates in five cases compared to three cases in which the unperson-alized versions did better. The differences between the personalized and unpersonalized treatments tended to be smaller than for the general public comparisons.

Two experiments included a "date only" treatment (no inside address or salutation), and in one case (Oregon gardeners) this treatment was 2.1 percentage points higher than the personalized treatment. A similar result was noted for the nonmember Washington forest owners sub-treatment, but not for the member subtreatment.

Discussion

The data reported here appear to mirror findings from earlier years. There is more evidence (based on significant differences and trends across studies) that the use of personalization improves response rates than there is evidence that it decreases response rates, especially for general public surveys. And, the one significant reversal for the Oregon ATV survey was brought into question after completion of the study.

It was discovered that members of an active listserve of ATV owners learned of the survey. Subsequently, an announcement about the survey and several exchanges were made among members that encouraged recipients of the questionnaire to return it because of its possible positive influence on building of ATV trails. We do not know to what extent these announcements may have affected results to the real stamp version of this survey, which is the only one where unpersonalized mailings significantly outperformed the personalized mailings. It seems possible that addressing the letter to ATV owners, rather than an individual name, may have helped recipients remember the questionnaires and retrieve it, but we cannot be sure. And, the use of stamps for the return envelopes in the subtreatment, where the significant results were produced, may have also helped with retrieval of the questionnaire (Dillman, 2000).

Our overall conclusion is that the use of personalization is unlikely to depress response rates for mail surveys in either general public or group surveys, and may be particularly helpful for improving response for the former. It is also apparent that when one contemplates techniques that might be used to improve response rates, personalization has less effect than certain other techniques reported in the literature, e.g., multiple contacts and token financial incentives in advance (e.g., Dillman, 2000). Nonetheless, it appears to be important for modestly improving response in some studies. That importance appears not to have declined over the years.

References

A complete list of references is available from the authors.

Table 1. Treatment Characteristics for Nine Personalization Experiments

Population & Year	Sample Frame	Qstr. Topic & Length	#/Type of Contacts*	Treatment Characteristics: Unpersonalized Version
GENERAL PUBLIC SURVEYS				
1. Nationwide, 2000: 1a. Three contacts only 1b. 4th contact with $2	U.S. households with listed phones	health status and care 12-16 pp	1a. Qx., PC, Qx. 1b. 3rd Qx.	Dear United States Resident
2. Washington statewide, 1994	state driver's license list of new residents	why moved to state 12 pp	PL, Qx. w/$2, PC, Qx.	Dear Washington Resident
3. Oregon county, 1996: 3a. Preletter 3b. Postletter	telephone directory	opinions on county livability 12 pp	3a. PL, Qx., PC, Qx. 3b. Qx., PC, Qx., postletter	Dear Yamhill Country Resident
4. Idaho city, 1998: 4a. Preletter 4b. Postletter	telephone directory	community issues 12 pp	4a. PL, Qx., PC, replacmt. Qx. 4b. Qx., PC, Qx., postletter	Dear Jerome Resident
5. Pennsylvania County, 1998: 5a. No incentive 5b. $2 incentive	telephone listings	county issues 8 pp	Qx., Qx., Qx.	Dear Centre County Resident
COMMON INTEREST GROUP SURVEYS				
6. Oregon ATV owner, 1998: 6a. outgoing envelope and reply had real stamps 6b. letter and reply had metered postage	all licensed ATV owners	ATV fuel consumption 2 pp	Qx, PC, Qx.	Dear ATV Owner
7. Oregon gardeners, 1999	requested garden info. from Univ.	How to get garden info. 4 pp	Qx., PC, Qx.	Dear Oregon Gardener
8. Washington forest owners, 1999: 8a. Member 8b. Not Member	public records of land owner-ship	forest management 24 pp	Qx, PC, Qx.	8a. Dear Wash. Forestry Assn. Member 8b. Dear Forest Landowner
9. Maryland members of recreational groups, 2000: 9a. Mountain bikers 9b. Horseback riders 9c. Bird watchers 9d. Boaters	 9a. member list 9b. member list 9c. member list 9d. permit holders list	recreational opinions and activities 6-8 pp	PL, Qx., PC, Qx.	Dear 9a. MAMBO 9b. TROT 9c. Birder 9d. Boat Permit Holder

*Contacts listed in order of occurrence: PL = preletter; Qx = questionnaire mailing; PC = postcard thank-you/reminder

Table 2. Results from Personalization Experiments in Nine Studies

Population	Personalized Treatment		Unpersonalized Treatments (Dear Resident/Member)		Unpersonalized Treatments Date Only		Chi Square Value	df	Probability
	Returns/ Total Sent	Resp. Rate (%)	Returns/ Total Sent	Resp. Rate (%)	Returns/ Total Sent	Resp. Rate (%)			
GENERAL PUBLIC SURVEYS									
1. Nationwide:									
1a. 3 contacts only	208/710	29.3	216/703	30.7	---	---	0.34	1	0.558
1b. 4th contact w/$2	316/695	45.5	289/691	41.8	---	---	1.87	1	0.171
2. Washington statewide	261/435	60.0	243/442	55.0	---	---	2.26	1	0.132
3. Oregon county:									
3a. Preletter	128/205	62.4	103/204	50.5	---	---	5.94	1	0.015
3b. Postletter	115/198	58.1	106/200	53.0	---	---	1.04	1	0.308
Total	**243/403**	**60.3**	**209/404**	**51.7**			**6.01**	1	**0.014**
4. Idaho city:									
4a. Preletter	103/170	60.6	83/162	51.2	---	---	2.95	1	0.086
4b. Postletter	101/167	60.5	85/149	57.0	---	---	0.38	1	0.536
Total	**204/337**	**60.5**	**168/311**	**54.0**			**2.81**	1	**0.094**
5. Pennsylvania county:									
5a. No incentive	130/284	45.8	100/273	36.6	---	---	4.80	1	0.028
5b. $2 incentive	180/280	64.3	167/273	61.2	---	---	0.57	1	0.449
Total	**310/564**	**55.0**	**267/546**	**48.9**			**4.09**	1	**0.043**
GROUP SURVEYS									
6. Oregon ATV owners:									
6a. real stamp	173/253	68.4	190/249	76.3			3.94	1	0.047
6b. metered postage	161/247	65.2	167/249	67.1	---	---	0.20	1	0.657
Total	**334/500**	**66.8**	**357/498**	**71.7**			**2.80**	1	**0.094**
7. Oregon gardeners	290/362	80.1	274/354	77.4	298/363	82.1	2.47	2	0.290
8. Wash. forest owners:									
8a. Member (Forest Owner Assoc.)	84/122	68.9	79/119	66.4	78/119	65.5	0.32	2	0.851
8b. Not members	206/474	43.5	201/464	43.3	217/474	45.8	0.73	2	0.694
Total	**290/596**	**48.7**	**280/583**	**48.0**	**295/593**	**49.7**	**0.36**	2	**0.837**
9. Maryland members of recreational groups:									
9a. Mountain bikers									
9b. Horseback riders	64/102	62.7	58/103	56.3			0.88	1	0.348
9c. Bird watchers	41/57	71.9	44/57	77.2			0.42	1	0.519
9d. Boaters (reservoir permit holders)	35/55	63.6	40/54	74.1			1.38	1	0.240
Total	75/118	63.6	66/116	56.9			1.08	1	0.298
	215/332	**64.8**	**208/330**	**63.0**			**0.21**	1	**0.643**