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# The Effects of Transparent Outgoing Envelopes on the Response Rate and Speed in Mail Surveys

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In this study, a mail survey was conducted in order to examine the effects of transparent envelopes (those allowing visualization of contents) on response rate and speed. The experiment was carried out by mailing a questionnaire covered with either transparent outgoing envelope or plain one to 1,000 households, whom were chosen by two-stage area sampling. As the result, the response speed of transparent envelopes was better than plain ones; however, there was little difference on response rates after sending follow-up postcards. This suggests that transparent envelopes, similar to follow-up mailing, may have a “reminder effect.”

Generally, response rates of mail surveys tend to be low. For example, Yu and Cooper (1983) conducted a meta-analysis of survey methods. They reviewed 93 journal articles and found the response rates of mail surveys (47.3%), telephone surveys (72.3%), and interview surveys (81.7%). The validity and reliability of the results of surveys are determined by the response rate, as previous studies have indicated that low response rates provide few credible statistics about the characteristics of the population as a whole (e.g., Fowler, 2002). In order to address this problem, particularly in Europe and the United States, a number of research studies have been directed towards methods of increasing the response rates such as clarifying the effects of multiple factors which might influence the rates (Fox, Crask, & Kim, 1988; Heberlein & Baumgartner, 1978; Yammarino, Skinner, & Childers, 1991) and developing a fixed set of principles for mail surveys as typified by TDM (Total Design Method, or Tailored Design Method; Dillman, 1978, 2000).

In this study, the effects of the appearance and style of outgoing envelopes were examined. In a mail survey, unlike other survey methods such as telephone or interview, researchers do not have direct contact with respondents, therefore the appearance of the mailing may be an important factor in the return response. Above all, the outgoing envelope is what a recipient first notices and the appearance makes the first impression and determines whether it is opened or not. If the envelope appears to be from a direct mail campaign, such as solicitations for donations or a commercial advertisement, the recipient is likely to discard it. Thus, the first step in a successful mail survey would be to entice the recipient to open the envelope.

Previous studies on the effects of outgoing envelopes mainly focused on the following factors: personalization (Byrom & Bennison, 2000; Kahle & Sales, 1978; Tullar et al., 2004), sponsoring organization (Asch & Christakis, 1994; Elkind, Tryon, & Devito, 1986; Houstone & Nevin, 1977), form of postage (Brook, 1978; Hensley, 1974; McCrohan & Lowe, 1981), the size of the outgoing envelopes (Halpern, Ubel, Berlin, & Asch, 2002), and envelope teaser, or a short message on the envelopes (Dommeyer, Elganayan, & Umans, 1991). Though several studies showed that these factors have no effect, it is believed that the style of outgoing envelopes is a factor that deserves attention when conducting mail surveys.

There are few studies that have examined the influences of transparent or see-through envelopes, which are defined as envelopes that allow visualization of contents without opening. It is possible that transparent envelopes allow immediate discrimination of a questionnaire from a direct mail campaign and therefore this visualization motivates a response because the recipient sees the incentive, small gift such as a pen, inside the envelope and is less likely to forget to respond. In other words, using transparent outgoing envelopes stimulates the potential to respond.

Many stationery companies claim that transparent envelopes increase the response rate of mail surveys and that they are suitable for direct mail campaigns because of the high rate of opening, however, there is no evidence so far to support the claim. In recent years, there has been an increasing tendency for consumers to discard mail without opening it (Direct Marketing Association, 1993). Consequently, it is important and meaningful, from both an academic and practical point of view, to investigate whether transparent envelopes increase the response rate when conducting mail surveys.

## **Method**

This study was conducted in Itami City, Hyogo Prefecture, Japan, which has 73,999 households with a population of 192,955 (as of April 1, 2005) and it is one of the medium-sized satellite cities of Osaka and Kobe. In this survey, 1,000 households were chosen using a two-stage area sampling from a house map, which contained information of householders' names and addresses and which was published in January 2005 on CD-ROM.

For the primary sampling unit, an area of town was randomly selected and the secondary sample was a random selection of house numbers. The selected households were then randomly assigned to either the control group, with a plain outgoing envelope, called the Plain Group, or the experimental group, with a transparent envelope, called the Transparent Group. There were 500 households in each group.

The survey procedure was as follows. First, pre-notification letters were sent to the chosen households (1,000). People from three households, two from Plain Group and one from Transparent Group phoned in and refused to participate. On April 15, 2005, after pre-notification, questionnaires were mailed to 997 households with an attached deadline of May 16, 2005. Additionally, follow-up postcards was sent on May 2, 2005. After sending the questionnaires, three from each group declined by mailing and there were 25 postal irregularities (Plain Group: 15, Transparent pre-notification: 10); leaving a total of 972 (Plain Group: 484, Transparent pre-notification: 488).

A 6-page double-sided questionnaire was printed on fine quality white paper. It included approximately 90 fixed-alternative response items. The purpose of the questionnaire was to examine how people evaluate crime victims. The outgoing envelope included: the questionnaire, a cover letter, an incentive (a ballpoint pen), and a stamped return envelope. The transparent outgoing envelopes used in this survey were clear on one side and unclear on the other side; therefore, the cover letter and incentive were clearly visible.

## Results

In this study, the response rate was defined as the ratio of the number of usable questionnaires to the total number that were mailed out. The response speed was measured by comparing the weekly cumulative response rates between the two groups, using the postmarked date as the standard.

Of the 972 mailed questionnaires, 341 were returned. Of these, nine were not included because they were completely blank (Plain Group: 6, Transparent Group: 3). There were 332 usable questionnaires, for a 34.2% response rate.

Comparing the two outgoing envelope styles, the response rates were 32.2% ( $n = 156$ ) for the Plain Group and 36.1% ( $n = 176$ ) for the Transparent Group. No significant difference was obtained in the response rates between the two groups ( $z = 1.26, p > .05$ ).

Next, the response speed was examined. Three were omitted from the analysis of the response speed, because two of Plain Group and one of Transparent Group in the returned mailings were illegible (legible rate = 99.1%). The weekly cumulative response rates from each group are shown in Table 1. It appeared that the transparent envelopes had an increased response speed until the third week. After sending follow-up postcards, the difference of the response rates between the two groups decreased.

		Plain Group		Transparent Group		Difference		
		<i>n</i>	(%)	<i>n</i>	(%)	%	<i>z</i>	<i>p</i>
1st week	(April 16-22, 2005)	74	15.3%	90	18.4%	3.2%	1.31	.190
2nd week	(April 23-29, 2005)	92	19.0%	110	22.5%	3.5%	1.36	.174
3rd week	(April 30-May 6, 2005)	119	24.6%	145	29.7%	5.1%	1.80	.072
4th week	(May 7-13, 2005)	149	30.8%	169	34.6%	3.8%	1.28	.201
5th week	(May 14-20, 2005)	155	32.0%	174	35.7%	3.6%	1.20	.230
Total	(April 16-May 31, 2005)	156	32.2%	176	36.1%	3.8%	1.26	.208

**Table 1.** *The weekly cumulative response rates of transparent and plain envelope groups*

## Discussion

The results of this experimental mail survey indicated that the use of transparent outgoing envelopes did not significantly stimulate the survey response. It was hypothesized in this survey, due to the pre-notification letter, that the recipients were alerted to expect the questionnaire. Therefore, regardless of the kind of envelope, no significant differences were seen between the two envelope styles in total response rate.

With respect to the response speed, the transparent envelopes had a higher response rate until the third week; however, the differences between the response rates of the two groups decreased after the follow-up postcards were sent. This suggests that transparent envelopes, similar to follow-up mailings, may have a “reminder effect.” Supposing transparent envelopes functions similar to follow-up mailings, the use of these envelopes in outgoing mailings could dramatically cut down the costs of follow-up mailings.

The effects of transparent envelopes on the response behavior of respondents need to be further examined. Future research should investigate the interaction with other factors such as pre-notification and follow-up, to clarify the role of transparent envelopes in mail survey methods.

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