Qualitative market research online.

Easier said than typed.

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Abstract

Three experiments show that the relative slowness of typing in comparison with talking seriously limits the internet's potential to yield self-disclosure in qualitative market research. In experiment 1, huge self-disclosure differences between a face-to-face and an online focus group resulted from communication speed differences. Two follow-up experiments showed that people are willing to self-disclose online when allotted sufficient time to do so. We formulate recommendations for qualitative market researchers.

keywords: online qualitative research; focus groups; self-disclosure; communication speed

Qualitative market research is a popular device to collect market information (Krueger 1994). Out of about the €18 billion (€1 ≈ \$1.3) spent on market research in 2001 worldwide (Esomar, 2002), roughly 18% (€3.0 billion euro) was spent on qualitative research (Amarach, 2001). The lion share of this 18% is spent on focus group research (15%). In focus group sessions, people gather in small groups (n = 4 to 12) and discuss a certain topic under the active guidance of a moderator. In comparison with quantitative research (e.g. surveys), focus groups allow deep level motivations and feelings to surface that are normally inhibited by social norms and conventions (Calder, 1977). Although the cost can be quite high (about €4000 for one session, e.g. Rogers Media, 2002), the type of information collected might be

worthwhile. Depth interviews are also used in market research, although less frequently than focus groups. The major aim of much qualitative market research is to make consumers convey information that is typically not socially available. In this paper, we explore whether this aim can be obtained online.

In the last decade, the internet has become a popular way for conducting market research (Deutskens, de Ruyter, Wetzels, & Oosterveld, 2004; Gaiser 1997; Mahajan & Venkatesch, 2000; Taylor 2000). Discussing the pros and cons of internet market research is beyond the scope of this article (for overviews see Ilieva, Baron, & Healy 2002; Walton & Lissitz 2000). Rather, we focus on the internet's potential for conducting qualitative research that makes consumers disclose about their inner self (Calder 1977).

Both in literature and in practice, two major positions can be distinguished. Some believe online discussions reduce social inhibition or self-presentational concerns, and hence facilitate disclosure about sensitive subjects (Nunamaker, Dennis, Valacich, & Vogel 1991; Joinson, 2001; Richman, Kiesler, Weisband, & Drasgow 1999; van Nuys, 1999; Walston & Lissitz 2000). Therefore, online focus groups might be an excellent tool to reach one of focus groups' major aims at a much lower price: facilitate disclosure of delicate information such as personal beliefs and attitudes.

In contrast, others consider live contact and group processes (in the case of focus groups) as a quintessential feature of qualitative research (Callebaut et al. 1999; Greenbaum, 2001; Krueger 1994). The latter position, in its extreme form, would imply that online focus groups and depth interviews would miss their purpose completely.

We next review empirical research that (1) is relevant to our research question and (2) that compared face-to-face and electronic qualitative research. The main focus is

on focus group research. In an experiment, Walston and Lissitz (2000) found that online interviewees were less likely (1) to have felt embarrassed to reveal something about themselves, and (2) to have been concerned about what the moderator thought about them. This seems to support the position that online environments enhance self-disclosure, although the authors had subjective measures only. Schneider et al. (2002) focused on behavioral indicators and found that online focus groups led to much fewer words generated (both in total and per minute). Walther (1995) compared face-to-face meetings and computer mediated discussions that were not limited in time. He did not detect differences in terms of self-disclosure. Time constraints did not play a role in Walther's study but did in the other studies. This might explain the differences.

A potential problem in Walston and Lissitz' and Schneider et al.'s study was that the participants were not randomly assigned to the groups. The sample of online participants might be extremely computer literate, and hence reduce the potential negative features of online focus groups. Potentially more damaging, the groups were not of equal size. Both Fern (1982) and Nunamaker et al. (1991) showed that group size matters in group discussions although both findings went in opposite directions. In the present studies participants were randomly assigned to one of the formats (online versus face-to-face) and group size was kept constant.

A strength of Schneider et al.'s (2002) study was their use of behavioral measures. Their data showed clearly that online focus groups are severely constrained by word generation speed, a characteristic that did not show up that strongly in previous research (see above) but had been reported in other domains (e.g. Nunamaker et al. 1991). How relevant is the communication speed for disclosure to occur? There are two reasons to suspect that it has an influence. Nunamaker et al. (1991) suggested that parallel communication threads reduce the likelihood of an idea to become expressed.

It can be forgotten or can lose its relevance later on. Because online discussions proceed more slowly, they generate more parallel communication threads, and hence result in information loss. Further, self-disclosure is a type of cooperation, and therefore requires trust. Trust is expected to build up only slowly and in a reciprocal way (Moon 2000). A slower communication speed produces shorter messages (Schneider et al. 2002), which hinders the emergence of mutual trust, and hence self-disclosure. Therefore,

H₁: Online environments will lead to lower levels of self-disclosure because of slower communication speed (i.e. lower word count per time unit).

Walther (1995) did not find a difference in self-disclosure when there were no time limits, and Schneider et al. (2002) found a large difference in number of words generated in a situation with time limits. This suggests that the time limits that are inherent in simultaneous group discussion drive the expected difference in self-disclosure. Therefore,

H₂: When time limits are removed from the online setting, message length difference and hence depth differences will disappear.

1. Study 1

The major aim of study 1 was to replicate, in a highly controlled setting, that a face-to-face focus group format results in a higher communication speed (and hence more words produced given time constraints) than an online focus group format. More importantly, we wanted to test whether this difference would also produce lower levels of self-disclosure in an online focus group setting. Note that the presence of communication partners limited participants with respect to the time they could spend communicating.

1.1 Method

1.1.1 Participants

During their lectures, we invited students of several study orientations to participate in a group discussion. Those willing to participate were randomly assigned to the online or face-to-face focus group condition and invited by e-mail. They were assigned to unisex groups of four people. All participants were complete strangers to each other. In total, 31 people participated. There were 7 groups of 4 people and in one (face-to-face male) group, only 3 people showed up. Sixteen were women and 15 men. The age ranged between 20 and 25 years ($M = 22.2$). They received €10 in return for their participation.

1.1.2 Procedure

1.1.2.1 Material

As in practice (Krueger 1994), we first constructed a discussion guide that was used invariably in the 8 focus groups. We did so in collaboration with five students from the same population to ensure that the questions were involving. The general topic was physical and public appearance, topics that (1) are of a great relevance to producers of cosmetics and clothes, and (2) are sufficiently sensitive to allow social inhibition effects to come into play and to be relevant to the majority of people.

Because experienced interviewers are typically more experienced in face-to-face than in on-line interviews, using experienced interviewers creates the risk that any difference between the formats might be due to interviewer effects. To avoid that problem, we used inexperienced interviewers that were first trained by an experienced interviewer.

1.1.2.2 Face-to-face focus groups

The students were led into a small room with five chairs and a table. There was a table with refreshments, coffee, and cookies. On the other side of the room, there was a digital camera filming the participants and a tape recorder. One person set up the camera and left.

The interviewer kindly welcomed them and invited them to take a seat. The interviewer introduced herself, sketched the nature of focus groups and invited them to take a drink whenever they wanted to. She also announced that she would tape-record and film the conversation. She assured the participants that the tapes would only be used to type out the transcripts and that their names would be removed. Then she started the warming up questions of the interview.

1.1.2.3 Online focus groups

The students were led into a pc-room with approximately 30 PCs by an independent guide. The interviewer was sitting in the back of the room and some students they did not know ($n = 4-5$) were filling the room to avoid that the participants could spot their discussion partners. Several seats separated the people in the room. This setting simulated a normal situation in a collective PC-room. They logged in a controlled chat room. The interviewer introduced herself online and started the interview. The guide stayed in the room but did not observe participants' behavior. She was merely available in case of technical problems.

The software (Blackboard ®) allowed participants to type simultaneously. The typed phrase was published on the common panel only after the enter button was pushed. Before each line of input, the name of the contributor was mentioned. So in both formats, all participants knew each other's name.

1.1.2.4 Final Questionnaire

After the last interview question, the participants were asked to complete a short questionnaire on paper. We measured their self-declared level of personal relevance of their answers, and their level of comfort with the interviewer, the setting, typing, and the topic. Then participants were thanked and paid. The whole experiment lasted for about 1.5 hour (with 1 hour and 10 minutes effective for the interview).

1.2 Results

The interviews of the four face-to-face focus groups were transcribed verbatim. We first report preliminary analyses and then test the first hypothesis introduced above.

1.2.1 Sample checks

We conducted ANOVAs with level of comfort (4 items, Cronbach's $\alpha = 0.73$) as dependent variables, and focus group type and gender as independent variables and session as a control variable nested in focus group type. Level of comfort (online: $M = 4.06$, face-to-face: $M = 3.90$) did not differ as a function of focus group types, all $F_{s(1,4)} < 0.65$.

1.2.2 Word count and measures of self-disclosure

First, we counted the number of words in the scripts for every person and every question. Because high means were related to high variances, we log-transformed the counts to stabilize variance. Further, questions differed with respect to the length of responses they evoked. Therefore, the log-transformed scores were z-standardized per question. Note that word count is a plausible operationalization of communication speed because both formats did not differ in duration.

Second, all scripts were read by three students from the same population. They rated self-disclosure for the nine responses per participant on a seven-point scale from 1: *does not reveal anything about the person* to 7: *reveals much about the person's inner*

self (average $r = 0.77$). Rated self-disclosure correlated highly with word count ($r = 0.86, p < .0001, n = 31$) but *not* with self-reported self-disclosure ($r = 0.14, ns., n = 31$). Self-reported self-disclosure and word count were not related either ($r = 0.14, ns., n = 31$).

For word count and rated self-disclosure, a separate repeated measures ANOVA was conducted with the level of disclosure for the nine questions as repeated measures, focus group type and gender as independent variables, and session nested within focus group type (Note that possible interviewer effects are controlled for because they are subsumed under session).

Table 1 shows the means (across questions) as a function of Focus group type and gender. For the analyses of word count, we used the standardized log transformed values in all analyses. In addition, Table 1 also shows the raw word count measures. Table 2 reports the summary statistics of the ANOVAs (between-subject analyses) for these variables. We found strong main effects (controlled for session differences) of focus group type for word count and rated self-disclosure. Participants in the face-to-face focus groups talked more than three times as much as typed the participants in the online focus groups in about the same time. The scripts were also rated to convey more about the respondents (self-disclosure). Gender had no main nor interaction effect. We also conducted an ANOVA on Strikingly, self-reported self-disclosure was *not* affected by focus group type in itself, but by a significant interaction between gender and focus group type (see Table 1, last two columns). Men reported having disclosed more deeply online than in face-to-face focus groups, whereas women reported the opposite (online: $M = 3.57$, face-to-face: $M = 4.13$). In fact, the objective data show that all participants disclosed more in face-to-face than in online focus

groups. This suggests that subjective measure can give a biased picture (e.g. Waltson & Lissitz 2000)

Table 1. Word count and self-disclosure (rated and self-reported) as a function of Focus group type and gender (Study 1)

			Word count			Rated		Self-reported	
						Self-disclosure		Self-disclosure	
			Raw Mean	Mean ^a	Sd	Mean	Sd	Mean	Sd
Face-to-face	Women	8	1661	0.65	0.3	5.03	0.5	4.13	0.5
	Men	7	1826	0,62	0.4	4,42	0,4	3.57	0.6
Online	Women	8	447	-0.78	0.2	3,34	0.4	3.50	0.6
	Men	8	657	-0.38	0.5	3,27	0.6	4.13	0.5

^alog-transformed, standardized, and summed over questions

Table 2. The ANOVA results for the between subjects factors (focus group types, gender, and session, Study 1).

		Word count		Rated SD [°]	Self-reported SD [°]
		DF*	F	F	F
Focus group type		1,4	191.89	27.45	0.02
			(p<.0001)	(p<.01)	ns
Gender		1,23	1.65	2.56	0.02
			ns	(p=.12)	ns
Focus group type *	gender	1,23	2.75	1.45	11.11
			(p=.11)	ns	(p<.002)
Session (nested in	gender*focus group)	4,23	0.42	1.80	0.64
			ns	(p=.16)	ns

* DF = Degrees of Freedom.

[°] SD = self-disclosure

To test hypothesis 1 that the difference in word count mediates the difference in disclosure, we followed Baron and Kenny's (1986) rationale. Previous analyses show that all necessary conditions are met: A main effect of focus group type on word count

and on self-disclosure, and a correlation between word count and self-disclosure.

Including word count in the model with rated self-disclosure as a dependent measure and focus group type and gender as an independent variable showed complete mediation: $F(1,4) = 0.0$.

1.3 Discussion

The data show that online focus groups lead to lower levels of self-disclosure, and that these differences rely on the dramatic differences in communication speed (here reflected in word count) between the conditions. A serious challenge facing qualitative market researchers going online seems to be the communication speed. However, the conditions differed not only in communication type, but also in terms of face-to-face contact. The effect of focus group type effect on self-disclosure was entirely mediated by communication speed, which suggests that a lack of face-to-face contact did not produce the self-disclosure gap. Still an online setting might still have led to lower willingness to talk (and hence to self-disclose). The next studies explore this further, and test the H2 that self-disclosure can emerge online in the right conditions (i.e. sufficient time).

2. Study 2

Study 2 has two aims. First, we wanted to replicate the communication mode effect on communication speed when face-to-face contact was removed in both conditions (talking vs. typing). Second, we wanted to explore whether removing time limitations in the online condition would reduce its relative disadvantage in terms of self-disclosure (and hence word count).

2.1 Method

Forty-two students participated in return for a participation fee of €7. Twenty-three were women. Participants' age ranged from 18 to 24. All participants received

instructions on the screen. To make participants familiar with the question/reply format, they had to answer a few some easy questions regarding their university major (which it was, the most interesting course up to now, and whether or not it met their expectations). Before the last question, participants were randomly assigned to one of two conditions: talk or type. The last question gauged the motivations behind their choice, allowing participants to self-disclose. In the talk condition, participants had to record their answers into a dictaphone (in private). They first had the opportunity to exercise with the material. In the type condition, participants had to type in their answer. We measured time spent communicating and the number of words. Notice that the nature of the communication setting (unlike in Study 1) did not limit the time they spent communicating. Four independent judges from the same population rated the scripts on self-disclosure (six-point scale, $\alpha = .87$).

2.2 Results and discussion

An ANOVA showed a strong main effect of communication type on time spent talking/typing ($F(1,41) = 14.6, p < .0005$) but not on word count and rated self-disclosure ($F_s < 1.27, ns$). Table 3 shows the averages for the three measures.

Table 3. Average word count, rated self-disclosure (1-6) and time spent as a function of communication mode (Study 2, Standard deviations in parentheses)

Communication mode		Word count	Rated self-disclosure	Time spent
Talking	20	77.0 (41)	3.24 (1.0)	74.4s (31)
Typing	22	81.5 (39)	3.59 (1.1)	169.6s (80)

These results support the view that online disclosure is possible but that time pressure prevents it from emerging. If people are free to spend time disclosing, they spent more time typing than talking and they say basically the same, both in terms of

number of words, and in terms of self-disclosure. Nevertheless, this study is somewhat worrying with respect to the absolute level of self-disclosure in both conditions. It is low in both conditions (around the midpoint of 3.50). People might not feel too comfortable talking into a dictaphone. Therefore, in a third study, we will explore whether self-disclosure can increase in online settings.

3. Study 3

In the previous studies we showed that communication speed is much lower online and that this aspect of the online environment is responsible for the huge reduction in the willingness or the ability to self-disclose. In Study 1, communication speed mediated the effect on self-disclosure and in Study 2, if time limits were removed, self-disclosure differences between talking and typing were removed. To find additional evidence for this interpretation, we manipulated the moment of the partner's interruption in an online discussion setting. We expected that if the interruption came early on, participants would produce fewer words and self-disclose less. This finding would replicate the findings of Study 1 in a setting in which the communication mode (i.e. typing) and face-to-face contact (i.e. absent) is constant between conditions and where there is only one partner. The second aim was to find evidence that self-disclosure could increase in the right circumstances. Remember that self-disclosure was low in Study 2. Moon (2000) showed that the partner's self-disclosure positively influenced self-disclosure through a process of reciprocity. Accordingly, we manipulated the length of the partner's response to the first question. In sum, we measured the increase in self-disclosure from the first response to the second as a function of length of the partner's first response and the moment of interruption during the second reply.

3.1 Method

We invited 105 participants to the lab (women from 18-23 years) in groups of six to eight and invited them to chat to a partner on two relevant consumer topics. They participated in return for a fee of €6. We explained that they would be paired anonymously to someone else in the lab. Actually, they communicated to a programmed strategy. The first discussion topic was study orientation. After a couple of short questions (see Study 2) they were invited to think about their motives for choosing the study orientation they had done and type that in. Their reply was then forwarded to their partner, and they would receive the partner's answer. In reality, the partner was fake. At the moment they submitted their reply, they received a message that their partner had done so too. Then they read their partner's response, that was either a short (29 words) or a long (108 words) response copied from real responses from Study 2. The second topic was about their favorite car. After 56 seconds, half of the participants received a message that their partner had submitted her response. This time limit was modeled after the briefest reply time of Study 2. The other half never received this message.

We measured word count for topic 2. Four independent raters from the same population rated the level of self-disclosure (6-point scale). We calculated the relative change in self-disclosure from response 1 to response 2.

3.2 Results and discussion

The partner's response length positively affected the number of words in response 2 ($F(1,103) = 14.50, p < .0001$). The partner's submission speed during response 2 negatively affected number of words in response 2 ($F(1,103) = 4.20, p < .05$). Figure 1 (upper panel) shows both main effects. The interaction did not approach significance ($F < 1$). For rated self-disclosure, a similar pattern emerged (Figure 1, lower panel). The dependent measure was the change in self-disclosure from response

1 to 2. The partner's response length positively affected self-disclosure change ($F(1,101) = 3.89, p = .05$). The partner's submission speed during response 2 negatively affected self-disclosure change ($F(1,101) = 3.17, p < .08$). The interaction did not approach significance ($F < 1$). Interestingly, in the condition where the partner had a long response and where she did not submit quickly, the increase in self-disclosure was significantly different from zero ($t(25) = 3.15, p < .005$). Finally, we tested the mediating role of word count on the effect of response length and submission speed on self-disclosure. The latter two were correlated $r = 0.61, p < .001$. The effect of both independent variables on self-disclosure disappeared completely (both F s < 0.43) when we included word count, which remained significant.

These results show two things: First, two aspects that are typical of online group discussions (short responses and quick responses) have an important negative impact on response length and hence self-disclosure. Second, the data show that in the right circumstances, self-disclosure increases, thereby replicating Moon's effect using real people.

Figure 1. Word Count and change in self-disclosure as a function of the partner's response length and response submission speed.

4. General discussion

The results of this paper show the importance of communication speed in self-disclosure. Because typing speed is typically much smaller than talking speed, online qualitative research faces a serious hurdle. The slowness of online communication reduces the opportunity to self-disclose because the responses become shorter, which, in turn, reduces the partners' willingness to produce long responses. This reduces the time invested in each response, and keeps the responses brief. We found clear evidence in all studies that communication speed differences drive the differences in self-disclosure in groups (Study 1) as well as in dyads (Studies 2&3). Short responses follow each other rapidly, effectively preventing participants from self-disclosing. Although at first sight, the message seems very grim for qualitative research on the internet, the identification of the cause of the gap suggests the core ingredient for all remedies: online self-disclosure can arise when participants can take their time. Before formulating practical formulations, we want to briefly highlight two aspects of our data.

Had we only collected self-report data, our conclusions would have been drastically different. The present research points to the problems of self-report measures in cases where consumers do not have clear anchor points. Interestingly, in Study 1, we found

that men thought they were more expressive online whereas women did so in face-to-face focus groups. In reality, they were all more expressive in the face-to-face groups. Therefore, we suspect that the self-reported self-disclosure has more to do with stereotypes ('men are more computer literate' vs. 'women are more talkative') than with real differences. This finding may also shed another light on some positive findings that rely on self-report measures (e.g. Tse 1999; Walston & Lissitz 2000). We strongly recommend that future research on this topic relies on objective rather than self-reported measures.

We acknowledge that our sample's homogeneity (in terms of age computer literacy) prevents us from drawing strong conclusions to the general population. However, we fear that the difference in self-disclosure that we found among young and highly educated computer literates will only exacerbate in the general population. The slower people type, the larger the gap between talking and typing must be. We further acknowledge that real qualitative research takes much longer than the interviews we conducted here. Therefore, the absolute levels of self-disclosure (certainly those of Studies 2 & 3) are difficult to generalize. Nevertheless, there is no reason to believe that the flaws of online communication would disappear if real interviews were used. Actually, the fact that we did find this divergence in the short time span makes the findings even more convincing. Finally, although our self-report measures do not show a difference in comfort with the environment in Study 1, the online environment might still have been less comfortable than the face-to-face environment and partially explain the difference. Future research might benefit from allowing people to participate at home while keeping the randomization procedure intact.

What do our findings teach us about the viability of online qualitative research? We want to discuss two straightforward implications. First, if the major aim of the

discussion groups is self-disclosure, simultaneous group discussions are not very useful. We assume that a larger number of discussion partners will exacerbate rather than attenuate the differences between both formats. Therefore, we recommend that the common practice to let more people participate in online focus groups than in face-to-face focus groups be reversed (see Walston & Lissitz, 2000, who had one online group of 18 people!). The low cost per online participant should not blind market researcher for the fact that the power is not in sheer number, at the contrary. The interpretation we offer suggests that 18 people will not necessarily reveal more than two.

Second, our data indicate that communication speed differences is the reason for the low level of self-disclosure in online settings. The implication is that online self-disclosure seems possible if participants get sufficient time to express themselves. Allowing participants enough time to type what they have in mind is not only a matter of time. A partner giving the right example (i.e. long replies) signals that taking one's time to reply is ok. Interestingly, our data explain why Walther (1995) found no differences in self-disclosure between online and face-to-face formats while others did (Schneider et al, 2002; Study 1). In Walther's study, participants posted messages when they wanted, not in fixed time slots, as is the case in many focus groups in practice.

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