Using Web Forums for Qualitative Inquiries: Empirical Findings on the Conditions and Techniques for Asynchronous Online Group Discussions

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Keywords
Qualitative Methods, Online Research, Group Discussions, Web Forums, Written Inquiries

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Using Web Forums for Qualitative Inquiries: Empirical Findings on the Conditions and Techniques for Asynchronous Online Group Discussions

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This paper presents findings from an experimental empirical study about web forum discussions as instruments for qualitative research inquiries. It focuses on written, asynchronous group discussions between absent communication partners and deals with autonomous group discussions instead of strongly structured focus groups. The autonomous development of subtopics by the group using written communication between absent partners is a particular challenge for both the researcher and the debaters. Under which conditions and using which techniques do qualitative group discussions using a web forum work successfully? Three aspects of running such discussions can be clarified: a surprisingly modest group size, a duration of two or three months and thematically reserved moderation but very “active reading” by the researcher produce positive results. Further research should study the function of multithreading, which was observed being used by the debaters. Keywords: Qualitative Methods, Online Research, Group Discussions, Web Forums, Written Inquiries

There is no question nowadays that the internet is a comprehensive data resource for social researchers. Although, even without the internet, people often interact without having a human opposite, computer mediated communication (CMC) more evidently provides new forms, options, and limits of social interaction. In fact, social interaction can hardly be imagined without screens nowadays.

Even though the online world is a “natural” part of ethnographic research (e.g., Costello, McDermott, & Wallace, 2017; Dicks, Mason, Coffey, & Atkinson, 2006; Wittel, 2000), internet-based research methods are little methodologically well-founded. This is even true for asynchronous group discussions via e-mail programmes and message boards, which are not only the earliest forms of online inquiry but are also specifically presuppositional methods (Schiek & Ullrich, 2017). The literature mainly deals with focus groups and/or synchronous chat procedures (e.g., Hanna, 2012; Murray, 1997; Rezabek, 2000; Stewart & Williams, 2005), while unstructured written group discussions are seldom the subject of systematic methodological investigations.

Therefore, one has to conjecture some basic principles for conducting forum discussions. Indications of the duration of online group discussions range from a few days to a year. In the same way, the number of debaters varies. Occasionally this is a single-digit number; at other times there are discussion groups with 15-20 members, and experiences with unlimited numbers of group members also exist (Kelle, Tobor, & Metje, 2009; Murray, 1997; Schiek & Ullrich, 2015; Turney & Pocknee, 2005). Finally, one can find hardly any instructions on moderation techniques for unstructured, asynchronous group discussions on the internet. Most advice refers to focus groups and implies strongly structured procedures, or else it concerns e-therapies rather than research investigations. The same is also true regarding the fundamental question of whether or not online communication needs face-to-face contact or not. While some
authors report face-to-face-meetings, but without giving further reasons (Houston, 2008; Illingworth, 2001; Kivits, 2005), there are also indications of increasing self-disclosure by respondents because the persons involved are literally only new acquaintances (Früh, 2000; Schiek, 2014).

In our research project, which was conducted in 2015-2017 and funded by the German Research Foundation (UL 186/7-1; SCHI 1184/3-1), we systematically study these features with a varying experimental design. This paper presents the central findings and it proceeds in the following way. First, a definition of asynchronous, online written group discussions is provided. At the same time, we also discuss why we focus on unstructured asynchronous written communication instead of synchronous video or text chats and focus groups. Then we present the research project and its essential findings concerning the above-mentioned features. The last section briefly draws some conclusions and proposes some further research questions.

Web Forum Discussions as a Qualitative Research Instrument: Definitions and Presuppositions

Online group discussions aim to produce in-depth reflexive data using the participants’ own structuring of relevant topics and aspects of a given research problem. As in unstructured, face-to-face group discussions, researchers use communication work on common topics in specific groups and this requires autonomous discussions by the debaters (Bohnsack, 2010; Mangold, 1960). Group discussions differ from both standardized surveys using “group interviews” and qualitative procedures based on more structured “focus groups,” although within these methods there is a large range of different uses, and especially the research practice of using focus groups certainly cannot always be precisely defined (Lee, 2010). In addition, online group discussions need to be distinguished from field documents which are completed autonomously by the debaters without any “controlling” by the researcher (Mann & Stewart, 2000, pp. 91-92). However, how long debaters should be left alone to generate text is an open empirical question.

Online group discussions can be categorised according to four characteristics (Ullrich & Schiek, 2014). This may be conducted in public. This occurs when all the users of the world wide web are able to observe the threads and postings. In contrast, to read non-public debates, users have to register and become a member of the group. Secondly, an online group discussion can be closed, with a limited number of members, or it can be open, when the number of debaters is unlimited.

The most important differentiations are certainly the orality or literacy of online group discussions, and the synchrony or asynchrony of the exchange. Considering the heterogeneity within the range of online conversations, we address the difference between clear time-bounded appointments for instant messaging, which require the “screen” presence of the communication partners at the same time, and interactions lasting for weeks or months with a specific duration and frequency of messaging and allowing the absence of the particular listener(s) or reader(s). Given this contrast between instant messaging and conversations with a time lag, asynchronous online communications constitute a huge contrast with face-to-face inquiries in qualitative research, which involve time-bound appointments with all the communication partners physically present at the same time and where “instant messaging” and direct synchronization of particular actions can be expected. This is why internet-mediated chats are primarily used as efficient alternatives to face-to-face interviews in market and social research (Mann & Stewart, 2000). In contrast, asynchronous CMC is unfamiliar among our

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1 The use of media and language differs according to the context. Thus, not only the character of a “text” varies with its situation. Also, individuals may use any internet medium for both synchronous and asynchronous interactions.
conventional data categories. As Moss and Shank (2002, p. 11; also Baym, 2010, p. 63) state, it “create[s] not only a culture of usage, but also an entirely new mode of social interaction and thought—a mode of communication that is neither oral nor written language, but rather a post-literate technological change of language itself.” Therefore, asynchronous, written online group discussions, such as web forums, cannot be understood as a substitute for usual qualitative interviews, but they are special alternative instruments for qualitative researchers.

Due to this huge contrast with qualitative interviews (usually conducted face to face), the use of asynchronous CMC is the most challenging method of qualitative online inquiry. In previous papers we have set out the characteristics of written research communication in the context of qualitative social research (Schiek, 2014; Schiek & Ullrich, 2017; Ullrich & Schiek, 2014). As Simmel (1983) had previously argued, the most central consequences of using written communication are “self-perpetuation,” externalization and heightening, and restructuring consciousness (see also Goody & Watt, 1963; Moss & Shank, 2002; Ong, 1982). This is particularly interesting for qualitative researchers when their interest is in the processes of constitution of meaning and experience, and it opens up opportunities to study these processes at an earlier stage than is possible using synchronous and oral procedures, that is, when an experience is not (yet) consolidated or ratified socially and when it is still in the process of being sorted, refined, discarded, reformulated or discussed with third parties, and tried out in interaction. Therefore, empirical findings show that individuals use asynchronous communications in particular for personal texts regarding “unusual” experiences and the search for their meaning. One might say that individuals use written communication in research interviews to study themselves (Beneito-Montagut, 2015; Schiek, 2014). Hence, there are many empirical findings and theoretical arguments supporting the assumption that written asynchronous online group discussions have a high potential to generate data different to that produced in normal face-to-face interviews.

Nevertheless, there is very little knowledge about the process of generating such data. How do we obtain reflections by debaters on experiences and meanings in web forum discussions, technically? This question concerns three basic features: time duration, the number of group participants, and techniques for the researcher to structure the discussion processes. In the following sections, we will focus on these factors and present the empirical findings from an experimental study of web forum discussions as qualitative research instruments.

**Conducting Web Forum Discussions: Methods of the Experimental Study**

We chose experimental design, because what we observe in natural forum discussions and their moderation cannot be completely transferred to survey methods and is not able to provide enough answers to the questions formulated here. At the same time, we have demonstrated that the reviews that exist on reactive online group discussions offer very different and vague information. Finally, secondary analyzes of data are generally difficult to achieve, especially for qualitative online surveys that are still in trial status. That is why we systematically varied web forum discussions.

Hence, in our research project, which was funded by the German Research Foundation and which took place from 2015 until 2017, we (i.e., the authors as project managers with the help of two assistants) conducted web forum discussions with 20 groups in two rounds. In round one (12 groups) we dealt with the following questions.: What is the optimal number of group members for asynchronous online group discussions and for how long do debaters discuss it? After we had clarified these issues, in the second round (8 groups) we studied the possibilities for structuring the discussion, that is, with moderation techniques. Before presenting our central findings, we describe the methodological procedures employed in the two rounds.
In the early days of using CMC for asynchronous, group discussions it was typical to use emails (e.g., Murray, 1997). Today, there also experiences with group discussions using collaborative systems, particularly in the context of participatory or educational research (e.g., AuYeung, 2004). Unlike email or other communication media, web forum boards enable explicit knotting, switching or shutting down of topics via special features and tools, particularly via multithreading. Asynchronous and simultaneous threading is said to be both an important property and a significant research topic within online communication (Ullrich & Schiek, 2014). For this reason, we used a web forum.

While there may be empirical reasons for asking almost everyone to debate certain problems in a web forum (cf. Schiek & Ullrich, 2015; Ullrich & Schiek, 2014), this time we were interested in the simulation of defined or at least definable groups. However, even non-public (and closed) online group discussions can conceivably be conducted with large numbers of debaters. The group size of internet forum discussions is—technically—able to be significantly higher than in face-to-face-discussions. To study this, we used different group sizes to see which made for a continuing brisk debate. Similarly, because of the nature of written communication and the asynchrony, one could expect a long duration of asynchronous online group discussions—with many months as a minimum.

Therefore, we composed groups with 15, 30, and 50 members and varied the time frames for the moderation. For some groups, there was only one month to moderate the discussion; in other groups the discussion time for moderation was unlimited. To be able to compare the durations and numbers of active debaters, we were careful to standardize the timings and the subjects of the discussion questions in this round.

Table 1. Controlled parameters in the group discussions in round 1.

<table>
<thead>
<tr>
<th>Group</th>
<th>Group Size</th>
<th>Discussion time limit (moderation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15</td>
<td>1 month</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>1 month</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>1 month</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>open-ended</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>open-ended</td>
</tr>
<tr>
<td>6</td>
<td>15</td>
<td>open-ended</td>
</tr>
<tr>
<td>7</td>
<td>30</td>
<td>1 month</td>
</tr>
<tr>
<td>8</td>
<td>50</td>
<td>1 month</td>
</tr>
<tr>
<td>9</td>
<td>50</td>
<td>1 month</td>
</tr>
<tr>
<td>10</td>
<td>30</td>
<td>open-ended</td>
</tr>
<tr>
<td>11</td>
<td>30</td>
<td>open-ended</td>
</tr>
<tr>
<td>12</td>
<td>30</td>
<td>open-ended</td>
</tr>
</tbody>
</table>

To secure basic participation in the experiment, all the debaters were chosen among students in the faculty of educational sciences in the university in which we teach. We composed the groups after the students had individually registered, trying not to put students in the same group who might have registered together (i.e., at the same time) to avoid natural inner groups or dyads in our group debates.

The research question used in the simulation concerned “achievement and success from a student’s perspective.” We configured a web forum board and rented the domain “achievement and success.de” (Fig. 1). Overall, 310 debaters were allocated into the 12 groups.

After starting the discussions, we sent reminders to students who did not log in for five days in the shorter moderated discussions and 14 days in the case of open-ended discussions.
Additionally, we sent emails to all the members of all the groups to tell them about new topics in the forums (once or twice a week).

*Figure 1. Homepage of the forum board, as seen by the users*

Although we assumed that the duration of the discussions and the group size depended on the moderation technique, we separated the group characteristics from the moderation style and conducted two rounds for pragmatic reasons. Therefore, in the second round we transferred the “successful” group size and discussion duration obtained in round 1 and experimented with techniques to stimulate autonomous group discussions. All the debates in the second round were conducted as open and non-directive moderated debates and the participants were able to open new topics via threads. While in the first round nobody had known about multithreading and so nobody had used it, in the second round we explicitly encouraged the participants to practice multithreading if they wanted to.

As mentioned above, the strategies for textual moderation are completely unexplored. Moreover, there is hardly any knowledge about a need for there to be (face-to-face) acquaintanceship between the persons involved. While qualitative researchers are familiar with relationship work in the non-virtual research field, CMC techniques are absolutely virgin soil. However, Gallagher (2015) provides textual forms of “active listening” and we can study strategies used in other mediated communications to bridge distance and create intimacy, such as personal forms of address or additional communication through other channels (e.g., chat, or email), or additional live meetings (Horton & Wohl, 1956). For qualitative online inquiries, this means that we have to reduce distance by using personal forms of address and employing more parallel channels in addition to the main conversation on the screen—maybe face-to-face meetings and a permanent “textual presence” plus written backstage conversations beyond the actual interview.

To explore this, we varied the mode of acquaintance. In some groups the debaters met each other (and the researchers) “live.” In other groups they got to know each other in an online round of introductions. A few groups started to discuss without introducing themselves to each other (Table 2). We also varied our style of communication with the participants. Following the formal communication style in the first round, this time most groups were moderated intensively and casually. This means that we often confirmed contributions and wrote in an informal way, for example, addressing the debaters on first-name terms, using parallel personal messaging, etc. Only two groups were moderated in a reserved, formal way, meaning that they were addressed formally and very seldom received feedback on their contributions.
In the second round we were able to obtain the participation of 84 students from all departments of the same university (except those from the faculty used in the first round). The domain and research topic did not differ from the first round. As in the first round, we sent emails to remind students who never logged in (and this time we replaced them in cases that they remained “no show”) and to participants who did not visit the forum for a week.

In the manner described above, we and the participants did not only produce the discussion data (postings). In addition, we also constructed different levels of acquaintance, observed the posting behavior of different members, registered the log-in behavior of all participants, and preserved background communications (via e-mail or private forum messages). Furthermore, we registered the usage of emojis, links, pictures, or videos (which went however to zero). These context data influenced data flow and can provide information on the participation character of the discussants or rather groups.

We simply counted the registered data about number of postings in time running, time intervals, numbers of active participations, extents of postings, and log-in behaviour, among others. We did formal text sort examination as well as content analyses. For this we use categorization techniques as is recommended by Grounded Theory Methodology. That implicates an open coding process which generates categories (such as “apology for late participation,” “opening new topic” or “references to each other”) inductively (and we used computer software for it). The detailed discussion of our findings in total we have published elsewhere (Ullrich & Schiek, 2019). Thus, as previously announced, we focus here on few, but important dimensions of conducting online group discussions: The different success of dissimilar time durations, group sizes and moderation techniques including different modes of acquaintance. We measured the success of web forum discussion— the discussion intensity—by the following indicators: number of contributions by different users, time intervals, courtesy (or rather “commitment”) and excitement articulated in postings), and the autonomy of the discussion, that is, the degree of self-development of discussion themes by the group.

Central Findings

The investigation into group size and the duration of discussion gave relatively clear results. The assumption that qualitative forum discussions can be conducted with significantly larger groups compared to face-to-face group discussions was only confirmed to a certain extent. On the one hand, it turned out that, purely technically, forum discussions can be conducted with larger numbers of participants. However, the number of contributions per participant dropped very sharply and, above all, the proportion of participants who did not write any contributions was significantly higher (fig. 2). By contrast, the difference between the middle-sized groups and the large groups was negligible. Smaller groups are therefore clearly “rich” and even the total number of contributions can only be increased with a very high number of participants. Therefore, the “efficient” size for forum discussions is quite similar to that for face-to-face groups: 10-15 participants.
With regard to the duration of the discussion, on the one hand it became clear that online group
discussions require a certain minimum time and that one month for a relatively complex topic
is already too tight. On the other hand, it proved to be counterproductive to carry out “open-
ended” discussions. This led to uncertainty among many participants and led them to delay the
initiation of the discussion for too long. Overall, a period of 8-10 weeks emerged as a good
time frame for web forum discussions (Figure 3).

However, how long participants are willing to actively participate in a forum discussion will
probably depend on the topic and the (more or less motivating) moderation. This leads to the
findings from the second round.

The investigation into different degrees of acquaintance between the group members
(and researchers) and different moderation styles also gave clear results. The more the
discussion group members are encouraged to become acquainted with each other, the more
briskly they debate. Moreover, they discuss significantly more continuously and “agilely”
when the moderator is reading very “actively” and writing casually (Table 2). This can be seen
not only in the numbers of postings but also in a clearly lower level of inactivity among
members of intensively and casually moderated discussion groups. Finally, our qualitative
analyses of the group discussions also showed how committed members were in the debate
when they got to know each other face-to-face or in an online round of introductions and when
they frequently got informal confirmation of their postings in the web forum or via personal
messages (emails or board messages).
Table 2. Postings and threads by parameters controlled for in the round 2 group discussions

<table>
<thead>
<tr>
<th>Group</th>
<th>Participants</th>
<th>Mode of acquaintance</th>
<th>Moderation style</th>
<th>User Postings</th>
<th>User threads</th>
<th>Postings in user threads</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12</td>
<td>face to face</td>
<td>intensive and casual</td>
<td>119</td>
<td>2</td>
<td>59</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>face to face</td>
<td>intensive and casual</td>
<td>46(^2)</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>online</td>
<td>intensive and casual</td>
<td>63</td>
<td>7</td>
<td>48</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>online</td>
<td>intensive and casual</td>
<td>63</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
<td>none</td>
<td>intensive and casual</td>
<td>50</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>12</td>
<td>none</td>
<td>intensive and casual</td>
<td>27</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>9(^3)</td>
<td>online</td>
<td>reserved and formal</td>
<td>32</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>12</td>
<td>none</td>
<td>reserved and formal</td>
<td>22</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

In the second round, the debaters used the technical possibility of opening new threads when they wanted to bring out further aspects of important subtopics thus building a multi-leg structure. This multithreading did not mean that there was no switching of topics within the (other) threads or in groups which did not generate new threads. However, it can be assumed that there is a sequential order of topics within the threads, while debaters use multithreading to parallel their discussion strands. The debaters posted contributions in threads built by their co-debaters without necessarily “leaving” previous discussions. In fact, they posted in several threads simultaneously. At the same time, we also observed discourses involving only two or three users in some threads, which seemed like there was an inner group excursus. Without further ado it is impossible to clarify the question of whether this simultaneous posting is a “real” multithreading of the group discussion or whether it is used as a kind of mumbling and whispering among small inner groups as we know it in face-to-face-contexts.

Discussion

While it now seems indisputable that asynchronous, online group discussions allow their own forms of interaction and therefore will probably enable researchers to study new topics, so far little is known about how they can be employed successfully. We have been able to show that groups with about 10-15 participants are likely to discuss for about 8-10 weeks. Face-to-face or on-line introductions also stimulate the debating process, as does frequent informal feedback from the moderator.

Nevertheless, overall the results of our experimental investigations are quite ambivalent. For example, we had formulated expectations with regard to group size and discussion duration that could not be confirmed. Forum discussions of (almost) any length are not meaningful or feasible, and neither is it to be expected that “large-group discussions” will

\(^{2}\) We assume that a different dynamic within the group and/or the researchers is responsible for this irritating result in a group which got to know each other face-to-face.

\(^{3}\) Due to a low readiness to participate in face-to-face meetings, the number of members is lower in group No. 7.
always include enough active participants. However, the result that we can achieve a better
discussion by fostering a high level of acquaintanceship and using a personal communication
style is encouraging. At the same time, this can also be seen as an indication that something is
missing online that is present face to face or is at least easier to produce. If so, online practices
that rely on the active participation of the “respondents” would need to be developed to deliver
strategies that can at least partially counterbalance the lack of physical proximity and eye
contact online.

For this purpose, more programs, tools, and devices need to be tried out. What are the
options for exploiting smartphones, smart apps, or game consoles; can more communications
(with the help of these devices) be used between “forum sessions?”

There are two other main questions that are still open and will need to be further
investigated. The first of these regards the function of multithreading. Do the participants create
a multi-stranded discussion and show new possibilities for conducting (and interpreting) group
discussions? Or are these “corners” for the digressing mumble of a few debaters? If this
occurred in face-to-face discussion settings, it would not only be allowed in forum discussions
but even encouraged. Secondly, the question arises of which text types are generated in the
discussions. Even though we can already say that particular interactions and data are generated
via CMC and especially in web forum discussions, an analysis of exactly what “texts” are
produced is still lacking. Only after investigating these factors will it be possible to say whether
the method brings something new.

Limitations of the Study

To fully comprehend the method we need to understand the many factors and their
interaction here. Only with analysis of the interaction, text, and content structures, will it be
said whether web forum discussions can replace or supplement qualitative face-to-face group
discussions and whether they represent a new, independent method for qualitative research.
We present appropriate analyzes at the forthcoming elaborated monography (Ullrich & Schiek,
2019).

Suggestions

Regardless of this, unfortunately, we have failed to force the background
communication via e-mails and private messages in the forum because we had the impression
that this motivates the participants further. Moreover, we should have integrated a smartphone
tool for the forum because this mobile device is the most important for users today and can be
operated from anywhere—participants have reported back that the forum page was
uncomfortable to use on the smartphone and this complicated their writing, if not prevented.
So, a smart phone tool should be used. Also, a discussion about social media environments like
Instagram or Facebook seem to work, as reported inspired by students whom we had
recommended to try it out in their work.

References


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