Interactivity/Reciprocity (Online Discussions/ Discussion Quality)

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KEYWORDS
interactivity, reciprocity, engagement, deliberation, deliberative quality, online discussions, discussion quality, discourse quality

BRIEF DESCRIPTION
Interactivity (or reciprocity) is a key dimension to assess the deliberative quality of online discussions. In quantitative content analyses, this dimension measures if participants engage in dialog with each other and refer to each other.

FIELD OF APPLICATION/THEORETICAL FOUNDATION
Most studies on online discussions draw on deliberative norms to measure the quality of their discourse (e.g., Esau et al., 2017; Friess et al., 2021; Rowe, 2015; Ziegele et al., 2020; Zimmermann, 2017). Deliberation is an important concept for the study of (political) online discussions (Ziegele et al., 2020). It focuses on a free and equal exchange of arguments to bridge social differences and legitimize political decisions (Dryzek et al., 2019; Fishkin, 1991; Habermas, 2015). Interactivity is a key dimension of deliberative quality, since deliberation is always a reciprocal and dialogical process (Goodin, 2000; Zimmermann, 2017). Participants engage in a dialogic exchange with each other, reflecting on other views and perspectives, and referring to each other (Friess et al., 2021; Ziegele et al., 2020). This reciprocal process includes both responding and listening (Barber, 1984; Graham, 2009). Interactivity is considered essential for desirable effects of deliberation such as learning, tolerance building and opinion change (Estlund & Landmore, 2018; Friess et al., 2021).

REFERENCES/COMBINATION WITH OTHER METHODS OF DATA COLLECTION
Besides quantitative content analyses, the (deliberative) quality of online discussions is examined with qualitative content analyses and discourse analyses (e.g., Graham & Witschge, 2003; Price & Capella, 2002). Furthermore, participants’ perceptions of the quality of online discussions are investigated with qualitative interviews (e.g., Engelke, 2019; Ziegele, 2016) or a combination of qualitative interviews and content analysis (Díaz Noci et al., 2012).

Cross-references
Interactivity is one of five dimensions of deliberative quality in this database written by the same author. Accordingly, there are overlaps with the entries on inclusivity, rationality, explicit civility, and storytelling regarding theoretical background, references/combinations with other methods, and some example studies.

INFORMATION ON ESAU ET AL. (2017)
Authors: Katharina Esau, Dennis Friess, & Christiane Elders
Research question: “How does platform design affect the level of deliberative quality?” (p. 323)
Object of analysis: “We conducted a quantitative content analysis of user comments left in a news forum, on news websites, and on Facebook news pages concerning the same journalistic content […] A sample of news articles [...] with related user comments, was drawn from the online platforms of four German news media [...] The first step of the sampling process consisted of 18 news articles from which 3,341 comments were collected [...] In the second step for each article, up to 100 sequential comments were randomly selected for content analysis, leading to
a total sample of 1,801 comments (979 on Facebook, 591 on news websites, and 231 in the news forum)” (p. 331).

**Time frame of analysis:** December 2015

**INFO ABOUT VARIABLES**

**Level of analysis:** Individual comment

**Variables and reliability:** see Table 1

**Values:** Dichotomous measures (yes, no)

**INFORMATION ON HEINBACH & WILMS (2022)**

**Authors:** Dominique Heinbach & Lena K. Wilms (Codebook by Dominique Heinbach, Marc Ziegele, & Lena K. Wilms)

**Research question:** Which attributes differentiate moderated from unmoderated comments?

**Object of analysis:** The quantitative content analysis was based on a stratified random sample of moderated and not moderated comments (N = 1,682) from the German online participation platform “#mein-fernsehen202” [#myTV2021], a citizen participation platform to discuss the future of public broadcasting in Germany.

**Time frame of analysis:** November 24, 2020 to March 3, 2021

**INFO ABOUT VARIABLES**

**Level of analysis:** User comment

**Variables and reliability:** see Table 2

**Values:** All variables were coded on a four-point scale (1 = clearly not present; 2 = rather not present; 3 = rather present; 4 = clearly present). Detailed explanations and examples for each value are provided in the Codebook (in German).

**Codebook:** in the appendix of this entry (German)

**INFORMATION ON STROMER-GALLEY (2007)**

**Author:** Jennifer Stromer-Galley

**Research questions:** The aim of the paper was developing a coding scheme for academics and practitioners of deliberation to systematically measure what happens during group deliberations (p. 1; p. 7).

**Object of analysis:** The author conducted a secondary analysis of online group discussions (23 groups with 5-12 participants) in an experiment called “The Virtual Agora Project” at Carnegie Mellon University in Pittsburgh, Pennsylvania. Participants attended the discussions from dormitory rooms that were equipped with a computer, headphones, and microphone. The group discussions were recorded and transcribed for analysis (pp. 7-8). Although strictly speaking the study does not analyze media content, the coding scheme has provided the basis for numerous other studies on the deliberative quality of online discussions (e.g., Rowe, 2015; Stroud et al., 2015; Ziegele et al., 2020).

**Time frame of analysis:** Three weeks in July 2004 (p. 7).

**INFO ABOUT VARIABLES**

**Level of analysis:** Level of the turn: Speaking contribution of a participant. Participants had to get “in line” to speak. When a speaker had finished their turn, the software activated the next speaker (max. 3 minutes per turn) (p. 8).

**Level of the thought:** Coders segmented each turn into thought units before coding the categories. “A thought is defined as an utterance (from a single sentence to multiple sentences) that expresses an idea on a topic.

Table 1. Variables and reliability (Esau et al., 2017, pp. 332-333).

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measure</th>
<th>Definition</th>
<th>RCA</th>
<th>Cohen’s Kappa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reciprocity</td>
<td>General engagement</td>
<td>This measure captures whether a comment addresses another comment.</td>
<td>.92</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Argumentative engagement</td>
<td>This measure captures whether a comment addresses a specific argument made in another comment.</td>
<td>.77</td>
<td>.542</td>
</tr>
<tr>
<td></td>
<td>Critical engagement</td>
<td>This measure captures whether a comment is critical of another comment.</td>
<td>.89</td>
<td>-</td>
</tr>
</tbody>
</table>

n = 40, 12 coders
A change in topic signaled a change in thought. A second indicator of a change in thought was a change in the type of talk. The distinct types of talk that this coding captured were the following: talk about the problem of public schools, talk about the process of the talk, talk about the process of the deliberation, and social talk” (p. 9).

**Variables and values:** see Table 3

**Reliability:** “Two coders spent nearly two months developing and training with the coding scheme.

The intercoder agreement measures […] were established from coding 3 of the 23 groups, which were randomly selected. […] Cohen's Kappas of the coding elements described above are as follows: thought statements on the problem of public schools, .95; […] turn type (new topic, continuing self, responding to others) .97; meta-talk, 1.0 […]” (p. 13-14).

**Codebook:** in the appendix (pp. 22-33)

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**Table 2. Variables and reliability (Heinbach & Wilms, 2022).**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measure</th>
<th>Definition</th>
<th>Krippendorff’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reciprocity</td>
<td>Reference to other users or to the community</td>
<td>Does the comment refer to at least one other user, a group of users, or all users in the community?</td>
<td>.78</td>
</tr>
<tr>
<td></td>
<td>Reference to the content of other comments</td>
<td>Does the comment refer to content, arguments or positions in other comments?</td>
<td>.78</td>
</tr>
<tr>
<td></td>
<td>Critical reference</td>
<td>Does the comment refer to other comments in a critical manner?</td>
<td>.86</td>
</tr>
</tbody>
</table>

n = 159, 3 coders

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**Table 3. Variables and values of the dimension “engagement” (Stromer-Galley, 2007, p.12; pp. 24-26).**

<table>
<thead>
<tr>
<th>Category</th>
<th>Level</th>
<th>Description</th>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turntype</td>
<td>Turn</td>
<td>Identify whether and to whom this turn is referring.</td>
<td>Starting a new topic</td>
<td>A new topic (not prompted by the moderator).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Respond on topic</td>
<td>A turn that is in response to a prior speaker or is on a topic that has been discussed. Includes responding to multiple speakers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Respond to moderator</td>
<td>A turn that is a response to a prompt or question from the moderator.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Continue self</td>
<td>A turn that seems not to respond to anything a prior speaker said but to continue the current speaker’s ideas from one of his or her prior turns.</td>
</tr>
</tbody>
</table>

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3/6
<table>
<thead>
<tr>
<th>Category</th>
<th>Level</th>
<th>Description</th>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem</td>
<td>Thought</td>
<td>Talk about the problem is talk that focuses on the issue under consideration.</td>
<td>Question</td>
<td>A genuine question directed to another speaker that is trying to seek information or an opinion from others.</td>
</tr>
<tr>
<td>Metatalk</td>
<td>Thought</td>
<td>Metatalk is talk about the talk. It attempts to step back and assess what has transpired or is transpiring in the interaction.</td>
<td>Consensus</td>
<td>Consensus metatalk is talk about the speaker’s sense of consensus of the group (“I think we all agree that . . .”), including an explanation for the collective's opinions or the collective's behavior (We’re asking you these questions because . . ).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Conflict</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Highlighting some disagreement or conflict in the group (“I sense some disagreement around . . .”).</td>
</tr>
<tr>
<td>Clarify own</td>
<td></td>
<td></td>
<td></td>
<td>Clarify the speaker’s own opinion or fact statement (“what I’m trying to say is”). It’s an attempt to clarify what the speaker means. This will arise ONLY after they’ve provided an opinion, NOT a question, and are now trying to clarify their original opinion on the problem, likely because they believe someone has misunderstood them.</td>
</tr>
<tr>
<td>Clarify other</td>
<td></td>
<td></td>
<td></td>
<td>Clarify someone else’s argument/opinion or fact statement (“Sally, so, what you’re saying is . . . “). It is an attempt to clarify what someone else means. Pay attention to the use of another participants’ name. That can be a sign of metatalk of another’s position.</td>
</tr>
</tbody>
</table>
EXAMPLE STUDIES

FURTHER REFERENCES
Graham, T. (2009). What’s Wife Swap got to do with it? Talking politics in the net-ba-
https://doi.org/10.1515/comm.2003.012


