Article

Shall We All Unmute? A Conversation Analysis of Participation in Online Reflection Sessions for General Practitioners in Training

Marije van Braak 1,*1 Mike Huiskes 2, Sven Schaepkens 1 and Mario Veen 1

Citation: van Braak, Marije, Mike Huiskes, Sven Schaepkens, and Mario Veen. 2021. Shall We All Unmute? A Conversation Analysis of Participation in Online Reflection Sessions for General Practitioners in Training. Languages 6: 72. https://doi.org/10.3390/languages6020072

Abstract: The COVID-19 pandemic has induced many changes to education in many contexts. In this study, we describe how general practitioners in training (residents) accomplish participation in collaborative reflection sessions conducted on Zoom. In this online setting, taking part in interactions is understood to be crucial to the creation of educational value. To study forms of participation used on Zoom, we recorded three group reflection sessions and examined them with Conversation Analysis. We focused on how participation is shaped by and is contingent upon the affordances of the online environment. Our analyses show that participants explicitly orient to the interactional accomplishment of participation in frameworks that change in the various phases of case discussion. Participants establish new procedures to deal with both familiar and sometimes new problems of participation introduced by the online environment. We describe these procedures in detail to contribute to the understanding of the accomplishment of participation through situated practices such as embodied talk-in-interaction. The findings can serve training purposes in online education across both medical and non-medical curricula.

Keywords: online education; participation; conversation analysis; collaborative reflection

1. Introduction

Online education has become a reality due to the COVID-19 pandemic. The shift from co-present to online education has consequences for the types of interaction that can take place. Researchers have reported on the challenges of distanced, lagged, internet-dependent communication (e.g., Seuren et al. 2020) while others have described the affordances of video-mediated settings (e.g., Oittinen 2020). In this paper, we focus on an aspect of the new environment that is key to engagement in education: participation. We examine how Dutch general practitioners in training (residents) manage their own and others’ participation in online education by analyzing their collaborative reflection sessions. Constituting an important part of medical training, these sessions are usually highly appreciated in terms of educational value (van Braak et al. 2021). In online form, however, teachers are finding them challenging to facilitate. Teachers report having to work very hard to get and keep a discussion going. Residents report having to struggle to take or hold turns in the discussion. Apart from anecdotal accounts, however, we do not know how teachers and residents manage online participation. A description of participants’ interactional practices and the resources they draw on to participate could be helpful in addressing these challenges.

From previous research on co-present collaborative reflection sessions in GP training, we know that participation is seen as a key component to creating educational value for all residents in attendance (van Braak et al. 2021). We also know that teachers see it as their task to encourage residents to participate in ongoing discussions by bringing in their...
own experiences or responding to others’ (van Braak et al. n.d.a). At the same time, recent
descriptions of online participation in a variety of institutional settings have shown that the
features of online environments have an impact on the ease and manner of participation in
ongoing interaction (for an overview, see Mlynář et al. 2018).

There are many issues with participation, that is, “actions demonstrating forms of
engagement performed by parties within evolving structures of talk” (Goodwin and
Goodwin 2004, p. 222), in online environments. First, accessibility to the interaction is
compromised in the case of muted microphones, or, more generally, due to technological
or internet limits. Second, “the sequential organization of actions is often disrupted by
technology-related troubles, such as delays and orientation disparities” (Oittinen 2020,
p. 5). Lags in the interaction signal can hinder smooth turn-taking (Seuren et al. 2020),
which has to be coordinated in the absence of some useful resources, such as gaze direction
(Halvorsen 2013; Hjulstad 2016). The use of various modes (e.g., video and chat) also poses
challenges in establishing sequential order across the modalities (Gibson 2014). Third,
the lack of immediacy in space and timing presents issues of reference (see “fractured
indexicality”, Due and Licoppe 2021, p. 9). Although each person can see everyone else if
their camera is turned on, no one can determine exactly at what or whom others are looking
at any point in time (Hjulstad 2016). This situation weakens the “performative significance”
of non-verbal behavior (Melander Bowden and Svahn 2020). Indeed, multimodal actions
have been found to be minimized and in need of upgrading for them to be received
(Heath and Luff 1993). Yet, the visual affordances of the online environment also allow for
multiple and simultaneous ways of participation. As such, the technology is a resource
that participants can use to construct an interactional space that provides for the activities
at hand (Hansen 2020; Mondada 2007; Oittinen 2020).

In sum, research so far shows how video-mediated ways of interaction may compro-
mise participation. Participants, however, may find ways to address these issues. For
example, Seuren et al. (2020) describe doctors and patients working collaboratively to
find ways to deal with the challenges and use the affordances of the environment to solve
problems that arise. Focusing on educational interaction in our study, we analyze how
participation in online education is shaped by and contingent upon the affordances of
the online environment. Studying these online interactions contributes to our theoretical
understanding of how, in detail and locally, participation is “accomplished through the
participants’ situated practices, which are produced in and through embodied talk-in-
interaction” (Due and Licoppe 2021, p. 4). Concretely, describing the specific practices
that participants use could prove useful for online education in current GP training as
well as other types of online educational interaction, because these practices can be em-
ployed to accomplish the main institutional goal of creating educational value for everyone
(cf. Tůma 2018).

2. Methods
2.1. Setting

Our study on online participation in Dutch GP training builds on earlier research into
this setting in co-present form (van Braak et al. n.d.a; van Braak et al. 2021; Veen and de
la Croix 2016; Veen and de la Croix 2017). In this medical educational setting, residents
collaboratively reflect on practice experiences under the supervision of two teachers. The
teachers are experienced GPs, either behavioral scientists or sometimes specialist doctors.
The weekly sessions take place throughout the three-year course and are attended by the
same group of about 10 residents for several months at a time. Currently, all collaborative
reflection sessions taking place at the recording site are done on Zoom.

2.2. Data and Participants

We analyze three online collaborative reflection sessions, recorded between November
2020 and January 2021. These sessions were recorded as a pilot data set for analysis of
online education in this setting. Each recording involves a different group of residents and teachers. Table 1 presents an overview of the participants and recorded groups.

Table 1. Characteristics of the recording, participants, and group history per recorded session.

| Recording | Length of Recording (h:m) | Residents Attending | Year of Residency | Teachers Attending | Meeting History of Group |
|-----------|---------------------------|---------------------|-------------------|-------------------|--------------------------|
| 1         | 01:46                     | 11                  | first             | 1 GP, 1 behavioral scientist | together for 3 months, 2 co-present sessions |
| 2         | 01:34                     | 11                  | first             | 1 GP, 1 behavioral scientist | together for 11 months, had 3.5 months of co-present sessions |
| 3         | 01:30                     | 11                  | second            | 1 GP, 1 geriatrician | together for 2 months, no co-present sessions |

All participants provided written or video-recorded informed consent for recording and analysis of their collaborative reflection session. The Medical Ethics Review of Erasmus Medical Centre, Rotterdam, the Netherlands confirmed that the Medical Research Involving Human Subjects Act did not apply and therefore official approval of the study by the committee was not required (reference number MEC-2020-0898).

2.3. Analytic Procedure

We used Conversation Analysis (CA) (Ten Have 2007), an ethnomethodological approach to study recordings that originated in sociology. The analytic focus of CA is on the social actions that are accomplished with and in talk-in-interaction (Sidnell 2013), including embodied, multimodal conduct such as gaze behavior (Hazel et al. 2014; Mondada 2014). First, we transcribed the recordings using Jeffersonian transcription conventions (Hepburn and Bolden 2013; Jefferson 2004) and adding multimodal features of the interaction where relevant. Following the common methodological procedure of CA investigations of interaction (Sidnell 2013), we first watched the recordings closely to observe any noticeable aspects of social interaction. One phenomenon that stood out, also in relation to our earlier research into this form of education (van Braak et al. n.d.a), was the participants’ ways of engaging in the online environment.

Moving back and forth between noteworthy instances of participation and the full recordings, we identified several distinct practices that participants used to accomplish participation and engagement throughout the sessions. We noticed that these procedures change as the session moves through its four phases: 1. case presentation, 2. exploration, 3. discussion, and 4. closing (van Braak et al. n.d.b; Veen and de la Croix 2017). In the following, we present the practices that participants used to take part in the unfolding online interaction (cf. Koschmann et al. 2011). Our focus is on the situated nature of these moments of participation (when), the actions that they accomplish (what), and how participation is accomplished.

3. Analysis

In the following section, we provide an analysis of how participants display an orientation to participation as a collaborative interactional achievement in an online setting.

First, we will show that participants at times explicitly orient to the particular features of the digital environment with respect to participation at the beginning of the session. This allows them to avoid the pitfalls, but also to exploit the specific affordances of the medium in creating optimal circumstances to facilitate participation. This shows that participation is one of the main considerations for the participants in the overarching project. It also shows that participants modify their use of the online setting in light of this consideration. Second, we will show that participants use specific practices of participation in doing story recipiency during the case presentation to adjust to the characteristics of the online setting. Both analyses, as well as the subsequent analyses of the transition from case presentation...
to discussion and the discussion itself, show that participants use the specific features and
the affordances of the online setting to participate in the activity of collaborative reflection.

However, the online environment also introduces some specific interactional problems
for the collaborative calibration of participation in the various phases of collaborative
reflection. Each of the distinct phases poses distinct challenges in the sense that for each of
the phases the participation framework needs to be modified or recreated to foster optimal
participation. In the last part of this section, we will analyze some of the practices that
participants use to deal with these challenges in an online environment.

3.1. Before We Start: Establishing Audio Norms

Participants themselves orient to the issue of participation in the local context of
the online environment. At the start of one session (recording 1), we saw participants
collaboratively establishing a norm for audio resource use in that session (lines 14–22). In
doing so, they show an orientation to optimal participation as the possibility of a direct
response to ongoing interactions. In the following fragment, the recording has just begun
and one of the two teachers (T2) first welcomes everyone and then addresses one of the
residents (R1, line 2).

Excerpt 1: Shall we all agree not to use the mute function (recording 1, preliminary to case
discussions).

```
1 ((start recording))
2 T2 zo goeie morgen allemaal heheheh
   well good morning everyone ((smiles))
3 (naam R1) jij staat dubbel ingelogd volgens mij,
   (name R1) you’ve logged in twice I think
   ((lines omitted))
12 R1 ja ‘(k weet ook niet)’
   yes ‘(I don’t know either)’
13 (1.5)
14 T1 zullen we vandaag weer afspreken om allemaal van de
   shall we all agree again not to use the mute function
   mute af te gaan?
   today?
16 T2 [ ((nodding)) ]
   [unless you really ] think I’ve got a lot of background noise
17 [ tenzij je echt ] denkt k heb heel veel achtergrondgeluid
   [yes (.) think that ] would [ be best ]
18 T2 [ja (.) denk dat] dat [wel het fijnst is.]
   [yes (.) think that] would [ be best ]
19 R2 [ ((nodding)) ]
20 T1 [om de drempel ] iets te verlagen om
   [to lower the threshold ] somewhat
   te reageren op elkaar,
   to responding to each other
22 (2.5)(several participants nod in agreement))
23 zijn er nog zaken die eh voorrang hebben=
   are there any other issues that should have priority=
24 =even iemand die iets kwijt wil,
   =even someone who wants to briefly share something um
25 e::hm,
   u::m
26 (0.8)
27 een algemeene vraag,
   a general question
```
Teacher 1 initiates the group’s agreement to the audio resource rules (line 14). Her proposal for all to “not use the mute function” is formatted as a suggestion for a shared decision about audio resource use for the current session: “shall we all agree to”. In doing so, the teacher addresses the use of the mute function as the default mode of the medium and suggests an alternative that allows for direct and audible reactions to each other’s contributions as the preferred mode of participation. Implicit in the teacher’s additional explanation of the proposal (lines 20–21) is the idea that muted microphones hinder smooth back-and-forth conversation because of the hurdles they create for taking turns. She suggests modifying a default characteristic of the medium, in light of specific requirements of the overarching activity that the participants are engaged in. With their visual (lines 16, 19, 22) and verbal acceptance of the proposal (line 18), the participants have now collaboratively agreed and have set a strategy to deal with this particular feature of the online environment. Although participants in recording 2 and 3 did not explicitly construct a rule like the open mic one, this excerpt shows how participants may overtly orient to the importance of participation in this type of session.

3.2. The Case Presentation: Doing Story Recipiency

After a resident has been selected to share their case, the participation framework shifts from the any and many to just the one person. One participant embarks on a larger project: the case presentation (phase 1). For the duration of that project, that resident becomes the primary speaker. In the CA literature, a larger project is called a discourse unit (DU) (Houtkoop and Mazeland 1985). The other participants take on the role of DU recipients and produce “transient reactive turns” (Houtkoop and Mazeland 1985) displaying their recipiency and understanding of the DU underway.

For other participants, taking part in the unfolding narrative thus involves displaying adequate and accountable DU recipiency, for example, producing recipient tokens, doing news receipts, and aligning and affiliating with the primary speaker. In the preceding section, we showed that participants in recording 1 show an explicit orientation to the desirability—or at the least the possibility—of displays of verbal participation. However, because of timing issues resulting from lags in the internet connection, verbal displays of recipiency can be quite obtrusive. In the following, we focus on non-verbal, embodied displays of recipiency of a story underway in recording 3, as the digital environment seems to provide particular affordances and resources for this type of recipiency. We will highlight two practices in this extract: producing exaggerated facial expressions and maintaining facial expressions for an extended period of time. These practices show a participant’s awareness of the constant monitorability of their embodied recipiency and an awareness of the ephemeral quality of their expressions such that these practices ensure increased salience and visibility.

Excerpt 2 shows an example where both practices are combined. Prior to this excerpt, R1, the primary speaker of the DU, has assessed her week as “quite frustrating”, thus projecting a DU elaborating the cause of her distress. She categorizes the DU as troubles talk (Jefferson 1988) and also hints at the type of responses she would like from the
recipients. She then continues introducing the setting and illustrates her “issue” with a concrete example: “It had already started on the Wednesday before” (not shown). Both the build-up to this report, which introduces it as an example of her disagreement with the procedures, and the production of the report with marked prosody that can be seen as communicating an indignant state of disbelief index a clear stance of aversion and disbelief. This is elaborated on in the account that follows, presented in Excerpt 2. During this part of the telling, the facial expression of another participant (R2) explicitly shows extended affiliation with this stance of disbelief (line 3).

Excerpt 2: use your charm (recording 3, case presentation phase).

1. R1 en toen was het verzoek, and then they asked me
2. ja of ik even mijn charmes in de strijd wilde gooien, whether I could use my charms
3. om dan die mensen te overtuigen to persuade these people
4. R2 [ raise-hold -release ]
5. R1 dat ze dan toch gevaccineerd wilden worden,] to be vaccinated anyway]
6. [ scans screen ]
7. (0.4)
8. R1 ja toen heb ik tegen die locatiemanager gezegd van nou (.) at that point I told my location manager well
9. charmes in de strijd gooien? use my charms
10. ik wil bij deze mensen langs I want to talk to these people
11. om te informeren over het vaccin to inform them about the vaccine
12. om te kijken (. ) wat hun (. ) redenen zijn to find out (. ) about their (. ) motives
13. om niet gevaccineerd te worden. = not to allow vaccination
14. =maar ik ga niemand overtuigen. but I will not persuade them
15. ik zeg dat is niet mijn taak. that is not part of my job

In lines 1–3, R2 reports the request that the location manager directs at her in the form of an indirect quote: “Of ik even mijn charmes in de strijd wilde gooien”. She uses prosody to mark the cause of her discontent. There is a strong emphasis on the word “charmes” (charms), which is produced with increased loudness and elongation. At the boundary of the turn-construction unit, R2 first raises her eyebrows and then widens her eyes producing a prototypical expression of surprise (Figure 1, also see Darwin 1859; Duchenne 1862). She holds this expression for a moment and then gradually releases it while scanning the other participants on her screen with visible eye movement in line 6. Displaying her affiliation by assuming and holding this prototypical facial expression for an extended period, R2 sidesteps a possibly disruptive feature of this social setting, since verbal displays of recipiency can be very disruptive due to timing issues resulting from possible lag in internet connections. In addition, her display of affiliation also shows how she creatively uses the specific affordances of this particular medium: the ability to monitor all participants en face and inspect their facial expressions for signs of displayed recipiency.
3.3. From Case Presentation to Discussion: Modifying the Participation Framework

In the transition from case presentation to group discussion of the case (phase 1 to phase 2), the participation framework has to be recreated yet again: from the case presenter to the “reflective” group activity of collaborative discussion in which at least some other group members participate. The transition is marked by ambiguity: Although the previous activity (case presentation) is noticeably closed, who will take the floor to start the next activity (case discussion) is not clear. Non-verbal resources to select next speakers, such as directed gaze, are limited in the online setting, so joining the participation framework is restricted to verbal bids for turns. The teacher’s role in recreating the participation framework is ambiguous as well: Is there or is there not a need for moderation?

In the following excerpt from recording 1, we observe participants dealing with the ambiguity of participation. At the possible completion of resident R1’s case presentation, T2 does a number of “formulations” (Heritage and Watson 1979), interventions that summarize what the case presenter has been saying and what her position was in the situation (lines 1–2). In line 3, R1 produces a minimal response aligning with the formulation (“ja”), after which T2 produces another minimal turn in third position (“okay”). This sequence is closure implicative and brings the project underway to a possible closure.

Excerpt 3: problematic/who would like to respond? (recording 1, transition from case presentation to discussion)

1 T2 dus het is eigenlijk het lijkt eigenlijk het initiatief
   so actually so it seems that actually the family is taking
   vanuit de familie en het ziekenhuis.
   the initiative and the hospital
2 R1 ja.
   yes
3 T2 oke.
   okay
4 (4.0)
5 6 R2 ja.
   yes
6 T2 ja heheheh
   yes heheheh
7 R2 lastig. {(lachend)}
   problematic {(laughing)}
8 T2 wie wil dr rea↑geren. {(lachend)}
   who would like to respond {(laughing)}
9 wel een heftige casus eeh-
   what a heavy case aye ah
10 R2 ja.
   yes.
The “okay” (line 4) in third position (Schegloff 1996) closes the sequence but is also closure implicative for the overarching activity (case presentation). This provides the other participants with an opportunity to self-select as the next speaker and modify the participation framework. However, no other participant takes the floor, and the current speaker does not continue, resulting in a pause of four seconds. After this pause, R2 self-selects as the next speaker by producing a minimal response (“ja”), followed by a minimal response by T2. This response is produced with laughter, which might be addressing the lack of progressivity in the talk. R2 then continues with an assessment—also produced with laughter—of the case presented by R1 (“problematic”), potentially moving into the next phase (collaborative case discussion).

Right after, the teacher explicitly opens the floor with an open invitation to react (“who would like to respond”), treating R2’s utterance as a response to the case presentation and not as the start of a case discussion. This constitutes an explicit moderator action proposing a modification of the participation framework (van Braak et al. n.d.b). In reaction to the open invitation by T2, R2 produces another minimal response after which R3 self-selects and produces a lengthy response (line 12 and further).

One can wonder whether this explicit invitation was required or whether it was a barrier to participation. Before T2’s invitation, R2 was already participating nonverbally and verbally (lines 6 and 8). However, R2’s turn in line 8 (“problematic”) is ambiguous between “doing recipiency” as part of the case presentation or moving the interaction into the discussion phase, where group members are expected to initiate contributions beyond doing recipiency. This may explain T2’s seemingly redundant invitation (line 9). Ironically, the teacher’s open invitation to “respond” can also be seen as sequentially deleting R2’s “problematic”, by not considering it as a (valid) response. However, the fact that resident R2 does provide a second story (Arminen 2004) right after R3’s reaction (not shown), does seem to confirm that this utterance was already the start of a reaction rather than just recipiency. Again, the irony is that the unmute rule, established at the start of this session, allows for exactly this kind of direct response.

Strikingly, the modification of the participation framework in the transition from presentation to discussion is in many cases established via an explicit moderation action by the teacher. This could be a case of “over-moderating”: Doing explicit moderation on the assumption that it is necessary in the online environment, while the environment itself provides opportunities to structure the transition in ways other than strict moderation. We see examples of unmoderated transitions in the recordings, too, where residents collaboratively recreate the participation framework without teacher intervention. In one instance, this transition is initiated “off the radar”: Residents use the chat function to do discussion-like actions while the case presenter has not yet recognizably signaled the end of the telling. In that specific instance, the case presenter actually incorporates a response to that reaction in her case presentation. This is how recipiency can be done in a way that makes the response available while the person doing recipiency does not enter or disturb the conversational floor. This is a qualitative affordance of the online environment that shows an orientation to direct but non-disturbing participation.

3.4. Discussion of the Case: Extending an Existing Participation Framework

Once the participants have moved into the new activity of discussing the presented case (phase 3), participation becomes a matter of modifying the participation framework to include all the other participants—changing the rights and responsibilities of the participants in the activity. Interactional instruments such as the “open mic” rule proposed
in session 1 may be intended to foster participation but joining an existing participation framework remains challenging regardless. In the following excerpt from the same recording, we show a continued attempt by one resident to participate in the ongoing discussion. The interaction takes place toward the end of a case discussion by resident R1 and both teachers, who share the initial, tripartite participation framework (R1-T1-T2).

Excerpt 4a: tripartite participation framework (recording 1, discussion phase)

1 R1 ja
   yes
2 maar terwijl je dan eerst eigenlijk helemaal aan de andere but first you were really completely on the other
3 {kant,} side
4 T1 [ ja. ]=
   yes
5 R1 =ik zat- helemaal ergens [anders,]
   I was completely somewhere [else]
6 T2 [ ja. ]
   [yes ]
7 R1 uiteindelijk kom je toch wel weer op het pad terecht,
   in the end though you get back to the same point again
8 T1 ja.
   yes
9 R1 maar dat vond ik wel een bijzonder gesprek .=
   but I thought it was a remarkable conversation
10 =dat het dan wel allemaal omhoog komt uiteindelijk.
   how everything does come up eventually
11 T1 hoe was dat voor jou?-
   how was that for you
12 hoe heb jij dat beleefd?
   how did you experience that
13 R1 nou ik vond het echt een leuk [gesprek]=
   well I thought it was really a fun [conversation]
14 T1 [ ja.]
   [yes. ]
15 R1 -en ik vond het jammer dat ik het niet had opgenomen
   and I thought it was a pity I did not record it
16 want ik dacht van [wow dit is echt een leuk gesprek. ]
   because I thought [wow this is such a fun conversation. ]
17 R2 {{smiles and nods alongr102}}

During R1’s storytelling, both teachers frequently express non-verbal recipiency and verbal recipient tokens (e.g., lines 4, 8, and 14), making use of the established open mic rule. Moreover, both teachers ask follow-up questions directed at the current speaker providing her take on the presented case (R1). This pattern of frequently showing recipiency and asking questions constitutes a narrow, tripartite participation framework and validates resident R1 as the primary speaker. During this episode, other residents show persistent readiness to participate in these interactions, yet they fail to effectively join the initial participation framework. Resident R2 in particular produces multiple signs of recipiency and readiness to participate throughout R1, T1, and T2’s exchanges. During the whole episode (that is approximately 3.5 min long, of which excerpt 4a shows a section), R2 verbalized four “recipient yeses” alongside those of the teachers’ (not shown in 4a). Additionally, R2 produces multiple and strong signs of non-verbal forms of recipiency. For instance, while R1 declares gleefully that “it is such a fun conversation” in line 16, R2 shows increased non-verbal engagement by also enthusiastically smiling and nodding along (Figure 2). However, only after T1’s explicit invitation for others to respond and join the tripartite participation framework R2 takes the floor (78–81, see Excerpt 4b).
In line 64, T1 initially directs her question at the prior speaker (R1) using an explicit address term. However, before finishing her utterance, she cuts her question short and explicitly includes all the other participants as addressees of her question in line 65. This initial focus on R1 and T1’s shift away from R1 show how the tripartite participation framework initially captivates T1’s focus within that activity. Only after the self-correction is the participation framework modified to include all participants. In response to T1, R2 accepts the invitation in lines 67–68 with “yes” and nods distinctly, with six other residents nodding simultaneously in agreement (line 69). This creates an information overload and confusion about “who said yes” in lines 71–77. Many heads bobbing at once make it challenging to align the “correct bobbing head” with the audible “yes”. In overlap with the nodding and right after the R2s “yes”, T1 produces an increment to her question in line 70, explicating what she means by “the learning process”. Upon completion of her utterance, she imme-
diately initiates repair in line 71 to identify the participant who self-selected to join in on the discussion. It takes the participants a few turns (72–77) to identify the speaker, after which R2 successfully reinforces his bid for a turn in lines 78–79 with “I also said yes” and produces a longer contribution to the discussion.

In sum, this excerpt suggests that forms of verbal recipiency outside the initial, tripartite participation framework go mostly unnoticed by those who are already alternating turns in the set frame as a result of the spatial configuration and the organization of the audio stream of the online environment. Breaking out of the tripartite frame needs marked action, such as an explicit invitation to join, which can be troubling due to informational overload. The narrow participation framework captures the focus of those directly involved in the frame, drawing them further in; while the recipiency and readiness to participate of outsiders remains mostly unnoticed. One practice that circumvents this issue of being noticed, which we observe in two of the recordings, is that residents use the chat function of the online environment to comment on aspects of the ongoing discussion, which can then be picked up by those part of the current participation framework. In that case, the chat responders are acknowledged as ratified listeners and active responders without them having to compete for a turn to participate in the interaction.

3.5. Case Conclusion: Narrowing the Participation Framework

Moving into the concluding phase of a case discussion (phase 4), participants narrow the participation framework again. This concluding activity has a dual focus: 1. To give everyone the opportunity for final “mentionables” (Schegloff and Sacks 1973), and 2. To determine the value or uptake of the case discussion for the case presenter and possibly for others (Veen and de la Croix 2017). In our recordings, we see a typical participation pattern that addresses both. This pattern is related to the rights and responsibilities of different participants in this type of activity in this institutional context. As the formal chairs of the sessions, teachers take and are granted the responsibility to initiate and advance closings. Similarly, as the primary speaker, the case presenter is entitled to signal whether closing the ongoing activity is appropriate in light of what they wanted to get from the discussion. The other participants are mostly ratified listeners, unless they take up the invitation to share final thoughts. These rights and responsibilities are visible in the following participation pattern in the last phase of case discussions. Interactionally, this is achieved in two steps. First, one teacher opens up the closure of the prior section to move into the conclusion, leaving room for any participant to take a turn. Second, after this one or both teachers and the case presenter collaboratively close the case by establishing the value of the discussion. The following excerpt from recording 1 is an example in point (R1 = case presenter, T1 and T2 = teachers, R2 and R3 = other residents).

Excerpt 5: would someone else like to respond (recording 1, end of discussion phase)

1 R1 ja >ik weet dus niet hoe-<
yes so I don’t know how-
2 ja dat kindje is dus wel uit de reanimatiesetting gekomen,
yes that little kid did come out of the reanimation setting
3 is vervolgens naar het (naam ziekenhuis) vervoerd,
afterwards they moved it to the (name hospital)
4 maar (.) hoe- (wat) 't nu met- eh daarmee gaat weet ik
but (.) how- (what) it’s doing now ah obviously I don’t
5 natuurlijk niet.
know that
6 T2 nee.
no
7 (2.0)
Situated in a context of final generalities and assessments, which typically introduce topic closings (Schegloff and Sacks 1973), T1 does a pre-closing move of inviting final responses (lines 12–13). Her invitation shows an orientation to the opportunity to share “unmentioned mentionables” (Schegloff and Sacks 1973), the first focus of concluding activities. The yes-preferred, second part of her invitation, “or is this enough (2.2) as is”, however, shows a clear orientation to the completion of the case discussion and also seems to narrow the opportunity to add anything at all. Yet, in lines 14–25, R3 takes up this invitation by adding to the case discussion. R3’s contribution comes to a close in line 25 with a conclusion (“so”) that remains incomplete. In response, T2 produces a minimal recipient token that she repeats after a 4.0 s pause in which nobody else self-selects as the next speaker. Rather than repeating her invitation for further contribution, T1 then moves...
into closing the current case by thanking the case presenter (R1) and they jointly close the discussion by establishing the usefulness of the presentation (lines 26–31)—showing an orientation to their rights and responsibilities to advance the closing activity. With the case presenter “owning” the case and being entitled to affirm the usefulness of the discussion or lack thereof so far, this narrow participation pattern is contingent on the session’s goal of producing educational value—especially for the case presenter.

In an online environment, these modifications in the participation framework and the specific responsibilities of the specific participants (most notably the case presenter and the teachers) can yield interactional problems. Whereas in face-to-face settings participants are co-present in a physical space, in online settings participants convene in a digital space while also occupying another physical space that may call on their attention. The following excerpt from recording 3 provides a case in point. While the case presenter is formulating her uptake, her attention is drawn to something outside her screen (line 3). She explains her distraction by mentioning the package delivery (line 5) and mutes her microphone before walking out of frame. While she is away the participants discuss the uptake of her case (lines 17–21). When she comes back, the teacher explicitly reports on what they have been talking about in her absence (25–29) treating her access to what has been discussed as crucial to the activity (in line with her rights and responsibilities as the case presenter).

Excerpt 6: and now apparently there’s a parcel arriving (recording 3, end of discussion phase)

1 R1 naja goed.=
   oh well
2 =ik tmoest t gewoon ef[fe: ja ik moest t gewoon even tkwijt.
   =I just had to quickly yes I just had to say it
3   {{(kijkt naar iets buiten scherm
   {{(looks at something outside screen
4   oh.=
4   oh
5   en d’r komt ook echt nu een pakketje binnen schijnbaar.
   and now apparently there’s a parcel arriving
6   {starts getting up from the chair
7   {{(slight laughter from various other participants))
8 T2 saved [by the bell.]
9 R1   {{(laughing))} (saved by the bell).
10   pre Ah-hi-hihihi
11   ex-aaah-ct-ly hahaha
12 T1 wordt vervolgd [denk ik ( )
13 to be continued [I think ( )
14   R1   {{(mutes microphone and walks out of frame))
15 T1 ja is een beetje afgekapte discussie zo.=
   yes it’s a bit of an abrupt discussion ending this way.=
16   maar zullen we maar wel eventjes verder?=  
   =but shall we move on none the less?=  
17   want ik denk dat we het hier heel lang over kunnen hebben,
   =because I think we could talk about this for very long
18   (en dat we d’r op terug gaan komen,)
   (and that we’ll come back to this)
19 T2 maar misschien wel even nog één zinnetje-
   but maybe briefly one more sentence-
20   e- i- ik denk dat wij als (.) of jwijd (.) jullie als aios,
   ah- I- I think that we as (.) or we (.) you as residents
21   h duidelijk je grenzen moeten aangeven.
   h clearly need to set your boundaries
en misschien is dat ook de frustratie van (naam R1), and perhaps that’s also (name R1)’s frustration
van- ja weet je ze is over haar grenzen gegaan, that- yes you know she went too far

((lines omitted; the teacher elaborates on this point, meanwhile R1 returns with the package in sight))

T2 kijk.
look
het cadeautje is binnen,
the present has arrived
R1 ((gestures at the package))
T2 nou ik zei net (naam R1),
well I was just saying (name R1)
een deel van je frustratie is natuurlijk ook dat jij voelt
part of your frustration is of course also due to your
dat jij over je grens moest gegaan qua verantwoording,
feeling that you had to overstep your responsibility
maar dat het niet werd opgepakt door je opleider,
boundaries but that your tutor did not acknowledge that
dus dat jij d'r ingesprongen bent.
so that you stepped in.

R1 ehm-

ja.
yes

((further discussion between T1, T2, and R1 about what the main
issue was and what feedback R1 can give to the supervisor in
practice))

While the group could have moved on to the next case following line 12 (where the
case presenter leaves the group to fetch the parcel), the teacher shows a dual orientation
in her following talk (lines 13–16). First, she proposes to continue the discussion (line 14).
In doing so, she shows an orientation to the relevance of this case for all present. That
is, she treats the case as a token of a type of situation and derives a “learnable” for all
present (lines 18–19) (Zemel and Koschmann 2014). Second, she shows an orientation to
the “ownership” of the case presenter to the discussion underway. This is visible in her
use of the particle “wel” (nonetheless) in her proposal to continue despite the absence
of the case presenter. It is also in her uptake after the return of the case presenter. Once
she is back with her package, she reformulates the upshot of the prior discussion for the
case presenter—thus dealing with the interactional problems caused by features of the
digital setting and again showing an orientation to the centrality of the case presenter in
this activity: The one who presented the case is entitled to acknowledge or accept what is
to be taken from the preceding discussion. Indeed, R1 partly acknowledges the teacher’s
interpretation of the main point (line 31 and further). This triggers T2 to make another
suggestion for future steps to take. So, also in this closing activity, we see participants
working toward the narrow tripartite participation framework that we observed earlier. In
doing so, they are restricted by the affordances of the online environment, where video
frames display the physical space that is part of someone’s reality. This context provides
for overriding responsibilities that influence the ongoing educational activity.

4. Discussion

In this study, we focused on residents’ participation in collaborative reflection sessions
held online. Participation is key to successful collaborative reflection (van Braak et al. 2021).
As a result of the COVID-19 pandemic, institutions have been forced to shift to online education. This raises the question of how teachers and residents achieve participation as a dynamic, complex, and temporally unfolding interactional achievement that addresses the challenges and uses of the affordances of this new online environment.

In our analyses, we showed that participants display an explicit orientation to participation in an online setting as a collaborative interactional achievement. Participants orient to participation as a direct reaction in ongoing interactions throughout the session. For example, they explicitly addressed a specific feature of the online environment by establishing a norm for audio use at the start of one session. During the case presentation (phase 1), participants creatively orient to the specific affordances of the online setting: Discourse unit recipients use the inherent possibility to monitor and inspect the facial expressions of all participants to display embodied recipiency. In doing so, they use upgraded and extended non-verbal behavior—an online conversation strategy that has been reported in other contexts (Heath and Luff 1993) but was not found in recent online educational interaction (Melander Bowden and Svahn 2020).

The transition from case presentation to discussion (phase 1 to 2) poses difficulties in online settings because of the inherent ambiguity of these transitions (Veen and de la Croix 2016). We found three distinct practices that participants used to recreate the participation framework: self-selection using open mic policy, using the chat function, and via the teacher’s explicit moderation. Our analyses reveal that this last strategy puts additional strain on the teacher, whose role might then become limiting rather than facilitating. During the case discussion, the participation framework should ideally give everybody a chance to speak, transforming the discussion of an individual case into a collaborative learning experience (Veen and de la Croix 2016). This typically involves extending the participation framework. Here we saw that one of the affordances of the online environment can also constitute a drawback. On the one hand, all participants are—in principle—available en face for others to monitor: They are continuously inspectable for meanings that can be gleaned from their facial expressions. This provides resources that are not available in face-to-face settings, where participants are often seated in a horseshoe formation, but also makes them accountable for adequate recipiency at all times. On the other hand, it is impossible to tell whether participants are actually monitoring others at any moment: During digital meetings, we cannot determine who is looking at whom—a situation very rare in face-to-face encounters even in groups (Stivers 2021). Thus, the particularities of the social situation (Goffman 1972) may result in non-verbal contributions going unnoticed by other participants. Also, in this phase, a strategy that was meant to facilitate participation, that is, the open mic rule, might actually have detrimental effects in making it harder to enter the conversation for participants outside the initial tripartite participation framework of the case presenter and the two supervisors.

In the conclusion phase, the participants need to manage two distinct orientations to the participation framework. First, participants need to establish that everybody has had a chance to speak their mind and that the group has reached some sort of collective understanding or agreement. Second, the case presenter should confirm that this understanding is an adequate discussion of the considerations of their particular case. Both goals portray an orientation to creating educational value for all (who want to raise additional questions or issues) and specifically for the case presenter. Here again, the specific characteristics of the online setting make it hard to move beyond the tripartite participation framework of supervisors and case presenters, which is illustrated by participants’ focus on maintaining this frame even upon the case presenter’s return after a short absence to open the door for a delivery. Each phase of a collaborative reflection session thus imposes a new participation framework that needs to be accomplished through participants’ situated practices in and through embodied talk-in-interaction. In this sense, case discussions like these can be described as situated activity systems (Goffman 1961; Goodwin 1996; Levinson 1979), “repetitive social encounters in which individuals are brought into face-to-face interac-
tion with others to perform a single joint activity of somewhat closed, self-compensating, self-terminating circuits of interdependent actions (Goodwin 2018, p. 187).

Overall, our analyses show that throughout collaborative reflection sessions, there is an explicit orientation to the interactional accomplishment of participation in different participation frameworks throughout the phases in this situated activity system. In this new online environment, participants invent new strategies to deal with familiar and sometimes new problems that the setting introduces. This is how participants use the environment as a resource to construct an interactional space that provides for the activities at hand (Mondada 2007). On the one hand, the new environment has affordances that enable participants to creatively display the non-verbal recipiency that results in increased participation by optimally using the complementary nature of two semiotic fields. On the other hand, the same characteristics of the environment (en face access to every participant) also limit the opportunity to ascertain whether embodied contributions are actually observed because of the absence of mutual gaze. Participants deal explicitly with what they perceive as the shortcomings of the new setting: despite the possibly obtrusive/intrusive nature of speech, they decide to leave the microphones open to facilitate direct participation in all phases. Although this does accomplish the production of recipient tokens, for example, it also seems to make it harder to broaden the participation framework.

Two limitations need consideration in interpreting these findings. First, although the recordings frame all those present, they provide just one perspective on the ongoing interaction. Given the known lags in digital in- and output (Seuren et al. 2020), we cannot know what information is received exactly when by whom. This compromises the analysis of the conversation in terms of precise timing. Therefore, we have avoided any firm conclusions in this respect. Second, our analyses are based on three recordings of online interaction in one educational setting. This limited data set prevents us from generalizing to other settings in online education. Yet, it does provide for analytic generalization (Pomerantz 1990). Our description of the interaction in this online educational setting should be understood as a description of participation practices that anyone taking part in a similar online setting can or could do (Waring 2013).

Admittedly, our analyses may only scratch the surface in terms of the description of practices that participants use to accomplish participation in online settings. However, they do indicate that the study of practices used to produce participation in online collaborative reflection sessions is interesting in its own right. Rather than analyzing these sessions in comparison to co-present reflection sessions, the study of online reflection as an independent activity system (Goodwin 2018), where online participants collaboratively achieve a joint project, may yield several interesting insights. First, our analyses remind us that all interaction is embodied, and that context and activity stand in reflexive relation (Heritage and Clayman 2010). Context is not independent of the activity; that is, the context is not a container that shapes the interaction in any determinate pre-ordained way. Rather, the activity shapes the context, making certain features more prominent and downplaying others. Second, this means that rather than dealing with online collaborative reflection sessions as the same activity in a different environment it might prove useful to study it as an activity in its own right. Although the institutional goals of collaborative reflection are the same in both environments, they constitute very different activities. Both environments highlight specific features of the educational activity. The online environment constitutes a new contextual configuration in the sense of Goodwin (2018, p. 17): a locally relevant array of semiotic fields to which participants demonstrably orient. In this contextual configuration, participants have access to different layers of semiosis (e.g., speech, facial expressions, chat) that allow for new practices to constitute participation. An investigation of how participants use and combine these different layers would be a promising avenue for future research. The study of these new practices may provide new insights into the nature of online interaction—a mode of communication ever more common and ever more vital in our current society.
Author Contributions: Conceptualization, M.v.B., S.S., M.V.; Methodology, M.v.B., M.V.; Software, n.a.; Validation, M.v.B., M.H., S.S., and M.V.; Formal Analysis, M.v.B., M.H., S.S., and M.V.; Investigation, M.v.B., M.H., S.S., and M.V.; Resources, M.v.B., M.V.; Data Curation, M.v.B., M.V.; Writing—Original Draft Preparation, M.v.B., M.H., S.S., and M.V.; Writing—Review and Editing, M.v.B., M.H., S.S., and M.V.; Visualization, M.v.B., M.H., S.S., and M.V.; Supervision, M.v.B.; Project Administration, M.v.B.; Funding Acquisition, n.a. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Ethical review and approval were waived for this study. The Medical Ethics Review of the Erasmus Medical Center, Rotterdam, the Netherlands confirmed that the Medical Research Involving Human Subjects Act did not apply and therefore official approval of the study by the committee was not required (reference number MEC-2020-0898).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data for this study are not publicly available.

Acknowledgments: We thank all teachers and residents for allowing us to record their online interaction about whatever experiences they shared. We also thank our native-English copyeditor for checking the final text.

Conflicts of Interest: The authors declare no conflict of interest.

References
Arminen, Ilkka. 2004. Second stories: The salience of interpersonal communication for mutual help in Alcoholics Anonymous. *Journal of Pragmatics* 36: 319–47. [CrossRef]

Darwin, Charles. 1859. *The Origin of Species and The Descent of Man*. New York: The Modern Library.

Duchenne, Guillaume-Benjamin. 1862. *Mécanisme de la Physionomie Humaine, ou Analyse Électro-Physiologique de L’expression des Passions Applicable à la Pratique des arts Plastiques*. Paris: Archives générales de médecine.

Due, Brian Lystgaard, and Christian Licoppe. 2021. Video-Mediated Interaction (VMI). *Social Interaction. Video-Based Studies of Human Sociality* 3. [CrossRef]

Gibson, Will J. 2014. Sequential order in multimodal discourse: Talk and text in online educational interaction. *Discourse & Communication* 8: 63–83.

Goffman, Erving. 1961. *Encounters: Two Studies in the Sociology of Interaction*. Indianapolis: Bobbs-Merrill.

Goffman, Erving. 1972. The neglected situation. In *Language and Social Context*. Edited by Pier Paolo Giglioli. Baltimore: Penguin, pp. 61–66.

Goodwin, Charles, and Marjorie Harness Goodwin. 2004. Participation. In *A companion to Linguistic Anthropology*. Edited by Alessandro Duranti. Oxford: Basil Blackwell, pp. 222–44.

Goodwin, Charles. 1996. Transparent Vision. In *Interaction and Grammar*. Edited by Elinor Ochs, Emanuel Abraham Schegloff and Sarah Thompson. Cambridge: Cambridge University Press, pp. 370–404.

Goodwin, Charles. 2018. *Co-Operative Action*. Cambridge: Cambridge University Press.

Halvorsen, Kristin. 2013. Participation across distance: Claiming the floor in multiple-location video meetings. *Journal of Applied Linguistics & Professional Practice* 10: 45–67.

Hansen, Jessica Pedersen Belisle. 2020. Invisible participants in a visual ecology: Visual space as a resource for organising video-mediated interpreting in hospital encounters. *Social Interaction-Video-Based Studies of Human Sociality* 3. [CrossRef]

Hazel, Spencer, Kristian Mortensen, and Gitte Rasmussen. 2014. Introduction: A body of resources—CA studies of social conduct. *Journal of Pragmatics* 65: 1–9. [CrossRef]

Heath, Christian, and Paul Luff. 1993. Disembodied conduct: Interactional asymmetries in video-mediated communication. In *Technology in Working Order: Studies of Work, Interaction, and Technology*. London: Routledge, pp. 35–54.

Hepburn, Alexa, and Galina Bolden. 2013. The conversation analytic approach to transcription. In *The Handbook of Conversation Analysis*. Edited by J. Sidnell and T. Stivers. Chisester: Blackwell Publishing, Ltd., p. 76.

Heritage, John, and Steven Clayman. 2010. *Talk in Action: Interactions, Identities, and Institutions*. Hoboken: John Wiley & Sons, vol. 44.

Heritage, John, and D. Rod Watson. 1979. Formulations as conversational objects. *Everyday Language: Studies in Ethnomethodology* 123: 162.

Hjulstad, Johan. 2016. Practices of organizing built space in videoconference-mediated interactions. *Research on Language and Social Interaction* 49: 325–41. [CrossRef]

Houtkoop, Hanneke, and Harrie Mazeland. 1985. Turns and discourse units in everyday conversation. *Journal of Pragmatics* 9: 595–620. [CrossRef]

Jefferson, Gail. 1988. On the sequential organization of troubles-talk in ordinary conversation. *Social Problems* 35: 418–41. [CrossRef]
Jefferson, Gail. 2004. Glossary of transcript symbols with an introduction. In *Conversation Analysis: Studies from the First Generation*. Edited by Gene Lerner. Amsterdam: John Benjamins, pp. 13–31.

Koschmann, Timothy, Curtis LeBaron, Charles Goodwin, and Paul Feltovich. 2011. “Can you see the cystic artery yet?” A simple matter of trust. *Journal of Pragmatics* 43: 521–41. [CrossRef]

Levinson, Stephen C. 1979. Activity types and language. *Linguistics* 17: 365–99. [CrossRef]

Melander Bowden, Helen, and Johanna Svahn. 2020. Collaborative work on an online platform in the context of video-mediated homework support. *Social Interaction. Video-Based Studies of Human Sociality* 3. [CrossRef]

Mlynář, Jakub, Esther González-Martínez, and Denis Lalanne. 2018. Situated organization of video-mediated interaction: A review of ethnomethodological and conversation analytic studies. *Interacting with Computers* 30: 73–84. [CrossRef]

Mondada, Lorenza. 2007. Operating together through videoconference: Members’ procedures for accomplishing a common space of action. In *Orders of Ordinary Action: Respecifying Sociological Knowledge*. Edited by Stephen Hester and David Francis. London: Routledge Taylor & Francis Group, pp. 51–68.

Mondada, Lorenza. 2014. The local constitution of multimodal resources for social interaction. *Journal of Pragmatics* 65: 137–56. [CrossRef]

Oittinen, Tuire. 2020. Noticing-prefaced recoveries of the interactional space in a video-mediated business meeting. *Social Interaction* 3. [CrossRef]

Pomerantz, Anita. 1990. Conversation analytic claims. *Communications Monographs* 57: 231–35. [CrossRef]

Schegloff, Emanuel Abraham, and Harvey Sacks. 1973. Opening up closings. *Semiotica* 8: 289–327. [CrossRef]

Schegloff, Emanuel Abraham. 1996. *Interaction and grammar*. Edited by Elinor Ochs, Emanuel Abraham Schegloff and Sandra Annear Thompson. Cambridge: Cambridge University Press, pp. 52–133.

Seuren, Lucas Martinus, Joseph Wherton, Trisha Greenhalgh, Deborah Cameron, and Sara E. Shaw. 2020. Physical examinations via video for patients with heart failure: Qualitative study using conversation analysis. *Journal of Medical Internet Research* 22: e16694. [CrossRef]

Sidnell, Jack. 2013. Basic Conversation Analytic Methods. In *The handbook of Conversation Analysis*. Edited by Jack Sidnell and Tanya Stivers. Chisester: Blackwell Publishing, Ltd., pp. 77–99.

Stivers, Tanya. 2021. Is conversation built for two? The partitioning of social interaction. *Research on Language and Social Interaction* 54: 1–19. [CrossRef]

Ten Have, Paul. 2007. *Doing Conversation Analysis*. London: Sage Publications Ltd.

Tůma, František. 2018. Enabling audience participation and stimulating discussion after student presentations in English as a foreign language seminars. *Linguistics and Education* 47: 59–67. [CrossRef]

van Braak, Marije, Esther Giroldi, Mike Huiskes, Agnes Diemers, Mario Veen, and Pieter van den Berg. 2021. A participant perspective on collaborative reflection: Video-stimulated interviews show what residents value and why. *Advances in Health Sciences Education, 1–15*. [CrossRef]

van Braak, Marije, Mario Veen, Jean Muris, Pieter van den Berg, and Esther Giroldi. n.d.a. A professional knowledge base for collaborative reflection education: A qualitative description of teacher goals and strategies. submitted.

van Braak, Marije, Mike Huiskes, and Mario Veen. n.d.b. The teacher dilemma of intervention: An interactional analysis of group discussions. submitted.

Veen, Mario, and Anne de la Croix. 2016. Collaborative reflection under the microscope: Using conversation analysis to study the transition from case presentation to discussion in GP residents’ experience sharing sessions. *Teaching and Learning in Medicine* 28: 3–14. [CrossRef] [PubMed]

Veen, Mario, and Anne de la Croix. 2017. The swamplands of reflection: Using conversation analysis to reveal the architecture of group reflection sessions. *Medical Education* 51: 324–36. [CrossRef] [PubMed]

Waring, Hansun Zhang. 2013. Two mentor practices that generate teacher reflection without explicit solicitations: Some preliminary considerations. *RELIC Journal* 44: 103–19. [CrossRef]

Zemel, Alan, and Timothy Koschmann. 2014. ‘Put your fingers right in here’: Learntability and instructed experience. *Discourse Studies* 16: 163–83. [CrossRef]