RESHAPING TEACHER-STUDENT INTERACTION IN THE VIRTUAL CLASSROOM
A CASE STUDY

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CONVERSATION ANALYSIS
ONLINE CLASSROOM INTERACTION
QUESTION-ANSWER SEQUENCES
TURN-TAKING

This paper presents an exploratory examination of video-mediated classroom interaction in School and University settings, a modality of teaching and learning which has recently experienced a rapid growth as a consequence of the COVID-19 emergency. Based on a corpus of audio and video recorded virtual classes, we analyze how instructors and students cope with the challenges of not being physically co-present and lacking direct visual contact in the virtual enviroment, and discuss how fundamental mechanisms of face-to-face classroom interaction –participants' mutual orientation in the opening phase, speakers' identification and recognition, as well as instructors' actions like comprehension checks, solicitations for questions/comments, questions and evaluations– are partially modified in the virtual environment, making it more complex, for instructors, to enhance students' active participation. Final considerations are devoted to the possible implications of these preliminary findings.

INTRODUCTION

With the spread of the Internet, since the early 1990s computer-mediated communication has increasingly found application not only in business and private contexts (e-mail, text messaging, videoconference, etc.) but also in educational settings; in these latter, a variety of tools has been employed to bridge physical distance among teachers and students and as substitute for oral class discussions, such as *Internet Relay Chat* channels, pre-recorded lectures –typically implemented by digital Universities–, as well as, more recently, synchronous online classes.

The obligation of physical distancing imposed over the last few months by the COVID-19 emergency, furthermore, has forced Schools and Universities to rapidly switch teaching activities to online synchronous and a-synchronous modalities, and to face challenges related to technical issues, as well as, and more relevantly, to the way teaching and learning can be successfully carried out in the (for many) new digital environment.

The present paper[1] addresses some of these challenges by examining a collection of videoconference-mediated classroom interactions in School and University settings in South Tyrol. These are investigated within the framework of Conversation Analysis, a theoretical and methodological approach devoted to the study of social interaction and language use (Sacks, Schegloff, & Jefferson, 1974; Sidnell & Stivers, 2013), based on the analysis of audio and video recorded naturally occurring communicative events. In particular, we focus on the way the online environment may affect classes openings and participants' identification (chap. *Opening the event, opening a conversational exchange*) and examine the possible difficulties faced by instructors in sustaining students' participation through comprehension checks and invitations for questions and comments (chap. *Checking students' understanding and opening the floor for discussion*). Furthermore, we analyse how the accomplishment of question-answer sequences, typical of classroom interaction, may be modified through affordances and constraints of

the virtual medium (chaps. "*Who can answer this question?*" *Non-addressed questions, silence, and overlaps* and *Evaluating students' answers*), and finally discuss some implications of our findings for enhancing the very sustainability of pedagogically interacting, as instructors and students, in a virtual environment.

Face-to face and online classroom interaction: the perspective of Conversation Analysis

Since its inception in the late 1970s, Conversation Analysis (CA) has provided detailed investigations of fundamental mechanisms governing interaction, describing how social actors make use of a variety of semiotic resources (talk, gaze, gestures, etc.) (Streeck, 2009; Goodwin, & LeBaron, 2011) to produce and recognize interactional conduct, both in ordinary, symmetrical conversations (for instance, among friends) and in "institutional" settings like classrooms, hospitals and courtrooms, showing how in these latter contexts participants typically orient to institution-specific goals and to restrictions on the nature of their contributions (Drew & Heritage, 1992). A case in point for such orientation is classroom interaction, where teachers take up the role of "leaders" or class "managers", opening and closing the encounter, giving students the floor, selecting topics and resorting order whenever necessary (Gardner, 2012; 2019).

CA studies have also highlighted how, while classroom work may encompass students' symmetrical peer interaction (as in group work or plenum discussions), instructional activities are typically organized in three-part sequences (IRE or Initiation-Response-Evaluation sequences) (Margutti & Drew, 2014; Mehan, 1979; Sinclair & Coulthard, 1975), that is, triadic structures whereby teachers direct questions whose answer they already know (so-called "known-information questions" or "display questions") to students, as a way of instructing them or verifying their knowledge, and subsequently evaluate their answers with positive or negative feedback.

Earlier CA research on classroom interaction was mainly centred on verbal conduct; in the two past decades, though,

scholars have started to examine face-to-face teacher-student communication from a broader, multimodal perspective. It has thus been shown how teachers and students bodily coordinate in space in lessons beginnings, so that a mutual focus of attention is gained and instructional activities can start (Ingwer, 2007); the teacher's gaze has been found crucial in actions like giving students the floor (Kääntä, 2012) or in reproaching students' unacceptable conduct (Andrén & Cekaite, 2017), while (silent) students' visual orientation has been examined as possibly displaying engagement in the activity at hand (Heidtmann & Föh, 2007; Orletti, 2015). Teachers' gestures in vocabulary explanations (Waring, Creider, & Box, 2013) and in soliciting students' correction (Majlesi, 2014) have been scrutinised in detail; attention has also been devoted to material objects like the (traditional) blackboard, and the way blackboard inscriptions may serve as resources in co-constructing and stabilising knowledge (Demo & Veronesi, 2019; Pitsch, 2007).

Since the late 1990s, furthermore, conversation analysts have expanded their interest from face-to-face conversation to computer-mediated discourse (Arminen, Licoppe, & Spagnolli, 2016; Giles, Stommel, Paulus, Lester, & Reed, 2015; Meredith, 2019), examining how basic rules of social interaction –turn-taking, the organization of actions that are performed through talk and other semiotic resources, and the way problems in speaking, hearing and understanding are solved– may be adapted in the virtual enviroment in events such as *Skype* video calls (Licoppe, & Morel, 2012), chats in ordinary and classroom settings (Garcia & Jacobs, 1999; Hutchby, 2001; Schönfeldt & Golato, 2003), *WhatsApp* conversations (Petitjean & Morel, 2017), *Periscope* live video streams (Licoppe & Morel, 2012), *Facebook* chats (Meredith & Stokoe, 2014), online support groups (Stommel & Koole, 2010), online video gaming (Reeves, Greiffenhagen, & Laurier, 2017) and, last but not least –though still very limited–, online classroom interaction (Hjulstad, 2016).

Drawing upon this body of research, in the following we thus examine how teaching and learning may be both made

possible and constrained by the use of audio and video technologies, in virtual classroom contexts in which instructors and students, rather than being temporally and physically co-present, communicate via an Internet connection and a PC, a smarphone or an iPad within a given platform and make each other audible and visible through microphones and webcams, can share files on their screen, write in a chat channel or on a virtual blackboard, as well as distribute themselves in groups within dedicated sub-channels for project works and the like.

Research methodology and data

In this paper we orient to the theoretical and methodological framework of Conversation Analysis (see chap. *Face-to face and online classroom interaction: the perspective of Conversation Analysis*), adopting an emic perspective that aims at capturing participants' actions and understanding of interaction as it unfolds moment-by-moment. Data consist of a corpus of videoconference-mediated classroom interactions held, via *Teams*, *Zoom* and *Google Meets* platforms, in School and University settings in South Tyrol (3 middle school classes and 3 secondary school classes, documented through audio-recordings, ca. 3 hours and 15 minutes; 8 university lectures and 9 labs, all video recorded, ca. 34 hours and 45 minutes) and collected between March and May 2020 with participants' informed consent[2]. Middle and Secondary school classes (Math in German L1, with 17 pupils, and Italian as L2 in two different classes, with 24 and 25 students, respectively) are structured in two main types of activities, that is, jointly revising home assignments and/or carrying out new exercises and tests, as well as dealing with new topics introduced by the teacher. University data are taken from a master's degree course attended by 13 students and held in German, English and Italian, with (some) lectures mostly constituted by lecturers' monologic talk, and labs characterized by a more balanced alternation between instructors' explanations and students' direct engagement in individual or pair/group work, as well as in oral presentations.

ANALYSIS

Opening the event, opening a conversational exchange

As outlined in CA studies (cf. for instance Kendon, 1990), for a face-to-face interaction to take place participants need to be spatially oriented towards each other and establish a joint focus of attention. In the physical setting of the classroom, as already mentioned, this is reached by instructors and students through bodily coordination and mutual gaze orientation; in which way, though, can such a joint orientation be reached in a "fractured" digital environment (Luff et al., 2003) where participants are not physically co-present and interact through a video and a microphone?

As expected, and as observed in our data, some time is spent, in the very opening phase of online classes, in checking visibility and audibility (typically by instructors) to ensure the very feasibility of interacting online: a phase which, intermingled with greetings, in our corpus ranges from a few seconds to five minutes, and which may recur whenever instructors or students share their screen to show documents and the like.

Participants' online conduct may also be negotiated, with instructors asking students to turn off microphones and cameras when not speaking: a specific participation framework (Goffman, 1981) which, though ensuring a higher sonic intelligibility of the instructors' talk and the avoidance of channel noise, may amplify the perception of the virtual environment as a fractured, fragmented space and lead teaching staff –as reported informally by some of the involved instructors– to feel as if talking in a vacuum, since they lack both visual and aural access to students as possible cues of their engagement and understanding[3].

A further, major issue coming into play here concerns the way in which a participant speaking into their microphone and deactivated camera may be identified and recognized by other participants; a task, as reported by Licoppe & Morel (2012) for *Skype* video calls, not always easy to accomplish. In fact, digital platforms do take such issue into account: in *Teams*, whenever a participant speaks into the (activated) mi-

crophone, his/her circle icon (with initials or a profile picture) is displayed in the upper, larger part of the screen while the icon squared background changes colour. In *Zoom* –where a selection between a 'speaker view' displaying the current speaker only and a 'gallery view' showing all participants can be made– the current speaker's image is similarly boxed with a different colour, and the same goes for *Google Meets*, which allows to switch between seeing all participants and a single one, and in which the current speaker's icon (as initials or profile picture) is highlighted in a different colour.

Such visual cues, though, may not always be easy to notice for instructors, given the fact that not only, as observed in our University data, students tend not to activate their video camera when speaking, but also because the speaker's icon appears next to previous speakers' icons, in the upper part of the screen (*Teams*), or together with all other participants (*Zoom* and *Google Meets*, 'gallery view').

The following extract, taken from a University lab, may exemplify how instructors and students deal with this issue (example 1). Here the lecturer (LEC), after having introduced the next activity –namely student presentations of an individual home assignment (collection and analysis of a phone call, with data and transcription delivered to the lecturer prior to the lab session)–, opens the floor inviting someone to volunteer as first presenter (line 1).

Example 1 (Lab1_2, 05:32-06:16, who's talking?)[4]

```
 1  LEC  who would like to to start¿ remember that you only have
 2       ten ten minutes so: it's really a- a sma::ll exercise
 3       but still I'm very happy with the works that you have done
 4       ah collecting and transcribing, analysing
 5       (0.3)
 6  BIR  should I? ((BIR's icon changes colour))
 7  LEC  yeah who's talking?
 8       (0.2)
 9  BIR  I mean mine (xxx) ah: Bir (.) git
10  LEC  yeah. was <your> ehm:: I had some strange feelings
11       >not strange feelings but< about your phone call
((LEC comments on phone call,
BIR provides details and presents analysis))
```

As can be seen in the transcript, following the lecturer's invitation and after a short pause (0.3, line 5), student Birgit (BIR) announces her availability to present her work ("should I?", line 6), while the background of her icon, already displayed in the upper part of the screen due to prior talking activity, turns from grey into bluish. As it becomes clear at line 7, though, LEC does not notice the colour change, nor does she manage to identify BIR by her voice, so that, after ratifying BIR's self-selection and thus giving her the floor, LEC explicitly asks the student to identify herself. Only after this is done, and confirmed by the lecturer (line 10, "yeah."), interaction can move on.

Checking students' understanding and opening the floor for discussion

Both School and University classes, as described above, are, to a lesser or greater extent, characterized by the alternation between monologic explanation phases by the instructor and more dialogic phases in which students' active contribution is required and encouraged, such as in pair/group work, discussions, or in question-answer-evaluation (IRE) sequences initiated by the instructor. During explanation phases, though, it is not rare for instructors to check students' comprehension, as well as to open the floor for clarification questions and comments. In face-to-face classroom interaction, such comprehension checks ("Is everything clear?") and invitations for questions ("Any questions?") and comments are typically deployed by instructors before closing the topic or activity at hand, thus opening a possible space for students' contributions and later move on to the next topic/activity. Students, on their part, may provide an explicit verbal positive/negative response, but also visually display understanding, agreement or perplexity through nodding, smiling and further facial expressions. How is comprehension verified, then, and how do instructors manage the (possible) absence of visual contact with students in online classes?

Let us consider the following episode (example 2) from a University lecture. Prior to the beginning of the excerpt, the lecturer had delivered a lengthy explanation of fundamental concepts around the topic "multilingualism", for which she had provided definitions and examples. After that, she asks students whether they have questions or comments on concepts and phenomena dealt with that far in the lecture (lines 1-6), so that they can "close the first round on terminology" (lines 7-9)[5].

Example 2 (LEC1_1; 35:42-36:57, "es kommt kein im chat herein")

```
 1  LEC  Ich wollte sie nun fragen, gibt es noch
 2       weitere begriffe oder phänomene,
 3       die wir jetzt in diesen ehm:: eh: vorlesungsstunden
 4       ja >die heutigen stunden, würden ja, verlängert,<
 5       eh: noch gesehen haben, was ihnen noch
 6       als etwas neues, oder bemerkenswertes,
 7       noch aufgefallen ist¿ damit e:h wir >so zu sagen<
 8       die erste terminologie, >den ersten terminologieschub<
 9       ehm:: hier  abschließen können?
10       (0.5)
11  LEC  bitte wenn sie sich jetzt im chat melden würden,
12       *(3)
         *looks down*
13       *(7)*
         *looks at chat*
14  LEC  <ja: es kommt kein im chat herein.>
15       ich kann ihnen auf jeden fall versichern,
16       wir hatten ja noch ehm: begriffe gesehen wie
((LEC2 mentions a number of concepts))
```

As can be noticed, the lecturer's long invitation for students' contribution –uttered in its final part with a rising, interrogative intonation (line 9) which clearly signals the end of the turn and opens the floor to interlocutors– fails to receive any kind of visible or audible reaction by students, so that, after a half a second pause, the lecturer relaunches the prior action by soliciting potential speakers to use the chat (line 11), a tool typically drawn upon for students' contributions in this course. Ten seconds go by while LEC looks down and then at the chat on her screen and, given the fact that nobody claims for the floor, she

resumes speaking by mentioning further concepts seen that far. The absence of students' responses is thus interpreted by the lecturer as absence of questions or comments and, consequently, as silent invitation to go on with the lecture. It cannot be claimed, evidently, that in similar cases a "verbal "response might "not" be provided in face-to-face classes either; what is striking, though, is the fact that students do not compensate the drawbacks of physical distance and momentary lack of mutual visual access by taking advantage of the possibilities offered by the medium (i.e., turning on the mic and provide a verbal feedback), and, instead, leave instructors' invitation non-responded.

One may suppose that the lack of students' questions and comments might be also linked to the overall challenges of teaching and learning in a virtual environment, as one university lecturer asks herself and her students towards the end of one of her classes[6]; nevertheless, what is observable here, as well as in similar cases documented in our corpus, is the complexity of sustaining students' participation in the digital classroom, as well as the momentary modification of fundamental mechanisms of face-to-face talk-in-interaction such as turn-taking and action sequentiality, as also noted for digital written communication (Schönfeldt & Golato, 2003).

"Who can answer this question?" Non-addressed questions, silence, and overlaps

As already mentioned (see chap. *Face-to face and online classroom interaction: the perspective of Conversation Analysis*), a typical organizational structure of classroom interaction, particularly whole-class teacher-led communication, is the IRE sequence, constituted by the teacher's (answer-known) question, the student's answer, and a positive or a negative teacher's third evaluative turn. Teacher's questions can be non-addressed or pre-allocated: the former are questions asked by the teacher the whole class, which may be followed by some student's verbal or non-verbal (i.e., via hand raising) claim for the floor; pre-allocated questions, on the contrary,

are those explicitly addressed to a particular student through individual nomination or other types of turn allocation (vocatives, gaze, pointing gestures).

While the ratio between addressed and non-addressed (answer-known) questions may vary across instructors, educational levels[7] and pedagogical goals[8], it is worth examining how these are accomplished in the virtual environment, and what consequences this may possibly have on the organization of teaching and learning, as compared to face-to-face classes.

In our data, pre-allocated questions are asked by instructors by explicitly mentioning students' names, thus identifying and selecting the next speaker in a way that is potentially intelligible for everyone. Interactional 'troubles', instead, seem to arise, similarly to the case of instructors' comprehension checks and solicitations seen above (chap. *Checking students' understanding and opening the floor for discussion*), when instructors address their questions to the whole class. In five university lectures and labs examined in detail, for instance, most instructors' non-addressed questions are followed by considerable silence (from 3 to 20 seconds)[9] and similar 'gaps' are to be found in secondary school classes, leading instructors, in case of non-responses, to select a particular student, or to reformulate and/or expand the initial question and open the floor again for students' answers.

Though limited and to be confirmed through the analysis of a larger corpus, these data seem to suggest that online classes in which students are "individually" called to contribute, rather than being generally addressed as members of the class, might be more successful in enhancing participation. This, in fact, might hold for face-to-face classes as well, particularly in school settings, but the physical distance and the potential (and, in most cases, actual) lack of visual contact between participants in online interaction –let alone connection failures and the like– might well increase the possibility that turns go unresponded and that longer silences between turns are not accounted for, as it may be the case in multiparty online chats and forum messages (Antaki,

Ardévol, Nunez, & Vayreda, 2005; Schönfeldt & Golato, 2003).

The technical difficulty for online participants to constantly see each other, on the other hand, seems to have been taken into account by digital platform developers: *Zoom*, for instance, gives users the possibility of virtually raising their hand, and thus request for the floor and pre-announce a (possible) imminent contribution, through a corresponding icon, and indeed this function was taken advantage of in the middle school classes examined here. Interestingly, a similar hand-raising icon was integrated in *Teams* in early May 2020 –that is, some months after the outbreak of the COVID-19 pandemic and the consequent increased use of this platform in the field of education– allowing participants to better manage turn-taking in large multiparty conversations by possibly avoiding overlaps between speakers competing for the floor, these latter representing one further interactional challenge participants had to face in some of the classes in our corpus.

Evaluating students' answers

In this last section we examine how, in the context of IRE sequences, instructors provide feedback to students' answers in the online environment and discuss how this context may lead to modifications with respect to face-to-face classrooms. As already mentioned, students' answers to answer-known questions are typically followed by the teacher's evaluative third turn, which confirms or rejects the answer, and which students expect and orient to; confirming evaluative turns are generally delivered without hesitations and in a short-time span (Margutti & Drew, 2014), while negative evaluations may be delayed and mitigated (Gardner, 2012).

How this kind of sequences may be 'translated' in the virtual classroom is shown in the following episode, taken from a high school class. The whole session has been devoted to reviewing Italian tenses; in this particular phase teachers and students are engaged in a series of exercises focusing on the subjunctive mood, to be used when conveying

uncertainty and after verbs expressing opinions ("think", "believe" etc.). Each exercise, assigned to a student and displayed in a table on the teacher's screen, comprises three sentences; in each of them, two verbs are to be substituted. The extract begins with the teacher (TEA) asking student Verena (VER), previously dealing with the first sentence, to do "the following one too" (line 1).

Example 4 (Sec_3, 07:50-08:20)

```
 1  TEA  pure il prossimo,
 2       (1.1)
 3  TEA  [voi dicevate che cri]stian faceva?
 4  VER  [voi dicevate che c-]
 5       (1.3)
 6  TEA  mh=mh,
 7  VER  voi pensavate che cristian (0.2)
 8       facesse bene il suo lavoro.
 9       (2.3)
10  TEA  m:h,
11       (3.2)
12  TEA  l'ultimo,
13       (2.5)
14  VER  voi pensavate che cristian, avesse
15       imparato l'inglese, a londra.
16       (2.4)
17  TEA  <(molto) bene.>
18       (1.3)
19  TEA  (x) (0.6) prossimo esercizio, Marlene
```

The teacher's invitation at line 1 is not immediately responded to by the student, so that the teacher starts reading the sentence to be transformed ("you were saying that Christian was doing?"), in overlap with the student, and pronouncing with particular emphasis the verb to be substituted with a subjective tense ("faceva", *was doing*). There follows a pause (line 5) and the teacher's minimal feedback "mh=mh," which encourages Verena to take the floor again and thus deliver her answer (lines 7-8).

Although this is correct, the teacher provides (minimal) positive feedback only after 2.3 seconds; a similar long pause is to be found after Verena orally transforms the following and last sentence of the exercise (lines 14-16), and before

the teacher gives her an explicit positive evaluation ("molto bene.", *very good*.), which also serves to close the interactional episode with Verena and to move on to the next exercise and the next student Marlene ("next exercise, Marlene").

What is remarkable in this fragment, which comprises two IRE sequences, are first of all the long pauses needed by VER to take the floor and perform the assigned task, and the fact that she waits for the teacher's verbal 'go-ahead' before doing that, a conduct that may be, at least in part, attributed to the fact that the teacher is sharing his screen and is not visible, but only audible, for students. Secondly, and more relevantly if compared to face-to-face classroom interaction, positive evaluations are produced by the teacher with delay, with a timing that would be otherwise common for negative evaluations: if connection problems – indeed audible in this episode– might be one of the reasons explaining such delay and individual teaching styles may also play a role here, it is clear that the lack of visual contact between interlocutors, with the teacher possibly providing a non-verbal positive feedback, makes the accomplishment of the IRE sequence cumbersome, with a temporal expansion of actions and responses, and with a contextual reconfiguration of meaning-making resources such as silence and preference in conversation.

DISCUSSION AND CONCLUDING REMARKS

In this exploratory paper we have examined some of the peculiarities of video-mediated classroom interaction –a modality that has become common worldwide in school and university education, after the outbreak of the COVID-19 virus pandemic in early 2020, to remediate the impossibility for instructors and students to be physically co-present in the classroom–, showing how teaching and learning in a synchronous online environment is both made possible and constrained by the affordances of the digital medium.

Apart from the need of checking the well-functioning of everybody's connection to the digital platform, of solving digital system failures whenever they occur, as well as issues of speakers' identification –this latter being much less immediate than in face-to-face encounters due to the lack of direct visual contact between interlocutors–, our data hint at the complexity, for instructors, of sustaining students' participation in the virtual environment, which increases typical challenges of face-to-face instructional events, and in which participants partially depart from known communicative practices of classroom discourse.

It was thus shown how instructors' comprehension checks and invitations for questions and comments, addressed to the whole class, may fail to receive a verbal or written response by students, while these do not make themselves visible to instructors. Similarly, content questions (whose answers are already known by instructors) open to all students are often followed by considerable silence or go unresponded, a phenomenon that can be observed also in face-to-face classroom interaction, but which seems to be amplified by the lack of physical proximity in the digital setting. Basic mechanisms such as turn-taking and the organization of actions are thus temporarily modified in online interaction, as observable also from the delay in which positive evaluations of students' answers are provided by instructors, as compared to their promptness in face-to-face instructional encounters.

These preliminary findings, on the one hand, hint at the need for instructors and students to develop a fine-grained sensitivity to affordances and constraints of online interaction: instructors, for instance, may have to direct more questions to individual students rather than to the whole class if they want these to be answered, while students may be encouraged to make their engagement, understanding and/or doubts much more visible or audible. On the other hand, and from a larger perspective, these data hint at the need, for all participants, to find new, more dialogic and less

teacher-led ways of co-operating in the digital environment, with students' higher involvement in autonomous pair/group activities, oral presentations and the like; last but not least, they hint at the importance of further investigating virtual classrooms at the microlevel of interaction, as proposed in this paper, if we want to gain access to what speakers actually do with the technologies that are made at their disposal to remediate the impossibility of copresent talk.

NOTES

1 The paper is the result of the collaboration between all authors; Daniela Veronesi is directly responsible for the chapters *Introduction*, *Face-to face and online classroom interaction: the perspective of Conversation Analysis* and *Discussion and concluding remarks*, while Ilaria Chizzoni, Katia Raineri, Veronica Schmalz and Monika Taferner are directly responsible for the chapters *Research methodology and data*, *Opening the event, opening a conversational exchange*, *Checking students' understanding and opening the floor for discussion*, *"Who can answer this question?" Non-addressed questions, silence*, and *overlaps* and *Evaluating students' answers*.

2 Data were collected by Katia Raineri and Monika Taferner (Secondary and Primary school) and by Ilaria Chizzoni and Veronica Schmalz (University lectures and labs) in the context of the "Conversation Analysis" lab offered within the *Master in Applied Linguistics* at the Free University of Bozen in a.y. 2019-2020, held by Daniela Veronesi.

3 See for instance the following instructor's question during a university lecture: "it's really weird, it's extremely quiet, are you all able to hear me okay?", before she invites students to activate their videocameras.

4 For transcription conventions, see Jefferson, 2004.

5 "I just wanted to ask you, are there any other terms or phenomena, that we have seen in these lecture hours, yeah, today hours were a little bit longer, uh that for you are something new or remarkable? So that we can, so to say, close the first round on terminology here? (0.5).
Please if you can write on the chat now (10) yes, nobody's coming in the chat. Anyway I can assure you, we did consider further uh concepts like…".

6 "We still have time for questions, if someone has them… I don't want to stretch this too far, but in this modality it is always a little difficult .hh to understand whether uhm whether more time is needed for questions to get formulated, or whether there really are no more questions, right? so I'll wait one more moment" (translated from German).

7 In our School data, for instance, pre-allocated questions prevail in High school classes (189 out of 210 questions), while in the Middle school context non-addressed questions (26) are used more frequently than pre-allocated ones (5).

8 Cf. Veronesi & Demo, 2020 on the importance of balancing the two types of questions for enhancing pupils' participation and inclusion in Primary school.
9 On a total of 39 non-allocated answer-known questions, 9 are responded to immediately or after a gap of 2 seconds or less; 11 are followed by a 3-5 second gap, while 19 are followed by longer silences (6-20 seconds).

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