CrossMark

Theory and methodology of pedagogical-phenomenological video analysis

Severin Sales Rödel[*] and Malte Brinkmann

* Correspondence: sales.severin.
roedel@hu-berlin.de
Humboldt-Universität zu Berlin,
Unter den Linden 6, 10099 Berlin,
Germany

Abstract

This paper introduces the methodological approach and the pedagogical-phenomenological practice of video analysis. In a first step, basic structures of phenomenological theories of experience, of embodiment as well as theories of responsivity and image will be introduced. In a second step, watching and perceiving video data is identified as a responsive and participatory experience. In a third step, the methodical ground of our research is introduced by giving an overview of epistemological and methodological aspects of the phenomenological approach. In this context, the individual steps of phenomenological video analysis and phenomenological analysis in general will be put to practice on an example. In doing so, teaching in the classroom is determined as an interattentional form of responsivity, in which showing as a specific pedagogical form of embodiment corresponds with becoming attentive. In a final step, research results on a typology of pedagogical gestures of showing and pointing will be introduced.

Keywords: Phenomenology, Video analysis, Image, Lived body, Embodiment, Responsivity, Participatory experience, Teaching, Learning, Showing, Attentiveness, Interattentionality

Introduction

Video analysis in educational science

Video analytical approaches are renowned methods of qualitative research in social sciences (Heath et al. 2010; Erickson 2011a) and in educational research today (Flewitt 2006; Derry et al. 2010). They have been a constitutive part of qualitative-reconstructive classroom research (Goldman et al. 2007) from the so-called practice-theoretical orientation (Schatzki et al. 2001; Reckwitz 2003) onwards, permitting differentiated descriptions of the complexity of human interactions (Flewitt et al. 2009, Knoblauch et al. 2008, 2012) as well as grasping situations both temporally and spatially. Most importantly, verbal and non-verbal expressions can be analyzed with regard to their relation towards each other. Dimensions of the lived body as well as material dimensions can be captured more efficiently and implicit matters, which cannot be verbalized but shown, can be rendered subject of discussion. As classroom situations and pedagogical interaction in general are a complex, multi-layered, phenomenon, perspectives following the paradigm of multimodality seem to be most fruitful (Erickson 2006). This paper follows the idea of reflecting on the multimodality and polysemy of both pedagogical practice and video data recorded in pedagogical settings. In difference to existing multimodality approaches in video research

(Erickson 2011b), this paper suggests to add a phenomenological perspective to educational video research. The aim of employing phenomenology as a research approach is to get access to subjective experience of learning and teaching (on the side of participants) and at the same time reflect on the performativity of the *research process as an experience of researchers*. By referring to theories from visual culture and image science, we will also reflect the medium video itself. In contrast to existing approaches, which take a semiotic or social-semiotic approach and render images as a specific kind of text (Jewitt et al. 2016 p. 115, Kress and van Leeuwen 2006), we will try to reflect on the specific reality and responsivity created by (moving) images.

We will start with some remarks on the status of experience (2), embodiment and the body (3) and images in phenomenological theory (4) and then present a methodological section (5) and a step-by-step sample analysis (6), explaining the method of pedagogical-phenomenological video analysis.

The phenomenological approach – Experiences

Regarding content, methodology and discipline, phenomenological educational science is concerned with the concept of experience,[1] as fleshed out by Husserl, Heidegger and Merleau-Ponty (Brinkmann 2016c, 2018a, 2015). As a philosophy of experience (Waldenfels 1992), phenomenology aims at qualitatively describing[2] and defining the temporal, corporal, sensual and mundane dimensions of experiences as they occur. Phenomenology has developed a methodology based on description, reduction and variation (Brinkmann and Friesen 2018, Brinkmann 2016ab). It assumes that a scientific and objective quality can be achieved by a focus on the thing itself rather than through method alone: The slogan '*To the things themselves!*' (Edmund Husserl) does not imply a positivistic but a skeptical and reflective approach to the phenomenon as "that which shows itself in itself" (Heidegger 1962, pp. 51–58). Phenomenological approaches insist on the diversity and complexity of meaning and experience. Recent phenomenology-based approaches in educational research critically follows Husserl's life-world turn, which starts with his *Crisis* paper (Hua VI). His approach to rehabilitate dimensions of meaning beyond the realms of science, in which world, self and others are perceived in a pre-verbal, ambiguous manner or in terms of the lived body, is still up-to-date. Phenomenological educational science has related this concept of experience to pedagogical contexts, in order to describe and analyze pedagogical experience (van Manen 2014, Lippitz 1984). Educational science can phenomenologically be determined as a science of experience (Brinkmann and Friesen 2018).

From a phenomenological perspective, experience is established as a phenomenon of ambiguity on the basis of the lived body (Merleau-Ponty 1965), a philosophical anthropology and a general moment of being-in-the-world (Heidegger 1962), which opens up the ability to learn (Lippitz 2003). It takes subjective and sensory experiences within learning, teaching and education into account (Brinkmann 2011). Following phenomenological and hermeneutic theories, we assume that meaning is constituted as situational, subjective meaning characterized by corporality and sociality (Schütz 1967; Brinkmann 2011). Experience is not understood as a finished product in the sense of output, but as a continuous process which can be disrupted or "fractured" (Waldenfels 2011, p. 5). These disruptions can occur in resistant moments, in moments when our being-in-the-world is confronted with things

"un-ready-to-hand"[3] (Heidegger 1962, p. 103), or pathos[4] (*Widerfahrnis*), as "something *by which* we are touched, affected, stimulated, surprised and to some extent violated" (Waldenfels 2004, p. 238; emphasis in original). They come into focus as life-worldly, inter-corporal[5] and inter-subjective processes marked by differences, ruptures and experiences of the alien or foreign (Waldenfels 2011).

For an empirical phenomenological educational science, the primacy of experience raises the difficulty, that subjective experiences are not accessible in an unmediated way. Experiences are not 'visible' in video data, which is why we place our focus on the lived body as a medium of embodiment of subjective experiences.

Externalization, embodiment, responsive event

In phenomenological philosophy and educational research, the expressivity of the lived body has become a research subject of growing interest. Non-essentialist and non-dualistic conceptions of corporality are developed against traditional European metaphysical conceptions and the division of body and mind. These 'new' theories of the body explore the inherent logic of being-in-the-world as an embodied person and the productivity of the lived body in learning and education.

When he speaks of the lived body as a "transfer-point (*Umschlagstelle*)" (Hua IV, p. 286), Husserl determines the lived body as the field of entanglement of world and self. Merleau-Ponty defines corporality as the world-organ of experience and differentiate *being* a lived body from *having* a body (Merleau-Ponty 1965, p. 401; Brinkmann 2016a). We experience in and through the lived body. The embodied relation is a pre-verbal and pre-cognitive one. The lived body is neither thing or object nor center of the self. In the lived body's materiality between inside and outside, own and other, we experience an unmediated and pre-verbal presence (Waldenfels 2002). The relation to ourselves and others – be it an experiential, a sensory, a verbal or a cognitive one – is always established later than the experience itself (Meyer-Drawe 1991). This ex-post character of our self-relation and relation to others and the precarious state of experiences is of great significance for qualitative research in social sciences with regard to epistemology and methodology.[6]

Plessner, one of the main representatives of philosophical anthropology, highlights the expressivity of the lived body in facial expressions, gestures, postures, language as well as in laughing and crying (Plessner 2003). These expressions hint at the general, expressive character of human being-in-the-world. They materialize in practical embodiment as a subjective and social form. While externalizations are spontaneous and subjective corporal expressions of mimic and gestural nature, embodiments claim latency in the habitual. They are corporal forms of response under the condition of social orders, which become habitualized and incarnated in the mode of repetition. Within embodiment, individuals practically position themselves towards themselves and towards the social and, at the same time, comment on these acts of positioning by responding in front of others (Brinkmann 2016a). Plessner defines embodiments as social modes of adopting a role, differentiating between elementary, representative and functional roles as modes of embodiment and as modes of disguise, understood in the original sense of *persona* (Plessner 1976). Within and through embodiments, we compare ourselves with others, judge them and identify with them (Waldenfels 2008, p. 168). Within processes of embodiment, the other (he/she/it) is present in a space of sociality in an elementary sense (Bedorf 2010). One's own perspective on the lived body is

therefore not the same as the perspective on the other. Embodied corporal behavior thus becomes tangible as a responsive event (Rödel 2015).

Responding as embodied behavior is described by Waldenfels in the sense of a situational "embodied responsory scheme", regarding sensory function, motor function and expression (Waldenfels 2007). Within this embodied responsory scheme, the person responding is already affected by the call and the claim of the other: "In the call that I receive, there is something that is demanded from me" (Waldenfels 2011, p. 37). The response is thus an incident, not a state, not intentional behavior or reaction to a stimulus or the effect of a cause. On the contrary, the inevitable passivity of every experience becomes evident in the experience of responding. In responding, an embodied resonance-space opens up. Responding as pathic responding is located in the difference between own and other (Waldenfels 2011).

Unlike experiences, embodiments can be observed and described, which makes them fruitful for empirical research. They are visible, perceptible and can be experienced – as an embodied expression or as a response in front of others. With theories of embodiment, subjective externalizations can be empirically described in their non-verbal dimensions. Subjective meaning becomes graspable for qualitative empirical research because it enters social and worldly interactions and embodies itself within these interactions. In practice, subjective meaning and social meaning intersect. This chiasm (Merleau-Ponty 1968, p. 328) promises to prove very fruitful as a basic figure of experience and the reconstruction of experience in empirical pedagogical research.

One of the advantages of the concept of embodiment for qualitative empirical research is, that cognitive-intellectual as well as sensory-embodied processes can be conceived as moments of a practice of the self. Another benefit is, that subjective and social aspects of action can be described. Subjective meaning is neither understood as an interpretation of a subjective intention, a re-living of sentimental inwardness (Dilthey 2010), nor as a different understanding of text and language based objectivity (Gadamer 2013).[7] Rather, subjective meaning as embodied meaning can be inferred from the responses of others. Phenomenology has developed a distinct methodology for this purpose (see sect. "Methodology of Phenomenological Video Analysis").

Processes of learning and educating can thus be described as embodiments in an inter-corporal responsive event. The sociality of education as a shared experience of learning and teaching (Brinkmann 2018) and the materiality of the lived body and of things change the focus from interactions to situations. In situations, the acts of expression and the call or claim of the other/others are either responded to or not responded to. This can occur in various ways: in the form of a conversation, facial expressions and gestures, showing-something and showing-oneself or disguising. Taking an embodied perspective into research also means, that researchers themselves become the focus of attention. They are considered as perceiving individuals, responding in an embodied way to events and embodied interactions depicted in videos. To elaborate on the point of responding to images and videos, we will now sketch out the specific character of images and their role in qualitative research in more detail.

Phenomenological description of images

In order to make video analysis fruitful for phenomenological and pedagogical research (and vice versa), preliminary epistemological as well as methodological issues have to

be taken into consideration. In the following, we will further discuss the role of the image in video analysis in its specific reality, its mediality and its responsivity. These reflections will be brought together in theoretical remarks on how we *understand images in responding* to them.

Picturality and reality of the image

Do we have to mistrust images? – This question seems to become increasingly urgent under conditions of a medial post-democratic society dominantly governed by images. Images are generated and produced. They are perspectival. They have an extremely potent illusory character. Fiction becomes even more prevalent in moving images, which can be said to augment fiction to simulation. At the same time, images as well as medial images are always framed. They only show an extract revealing the perspective of the person who has produced them. They exclude by including (Kress and van Leeuwen 2006). This common understanding of image and video as well as the widespread duality of a factual reality (i.e. what we commonly refer to as 'reality') and a fictional or simulated reality (of the image or the video) is to be questioned (Mersch 2002; Boehm 2007; Wiesing 2013; Sternagel 2016).[8]

  Images produce a reality of their own. This specific reality cannot be grasped by dualistically separating it from an alleged reality of 'the factual'. We can clearly see this effect of creating an 'own' reality in works of art of abstract modernism displaying something which eludes objective, measurable and countable approaches. What is displayed by these images points to meaning (or emotion) rather than matter. This implicit meaning of the image is perceived *as* the reality of the image. From an epistemological perspective, the reality of the image and the reality of the factual are incongruent and disparate (Schütz 2016a, 2016b). The reality of the image with its inherent logic and materiality can become tangible precisely in this incongruity. From an epistemological point of view, the reality of the image is not only perceived as reality, but also responded to immediately. The multitude of experiences which are constituted while looking at an image are immediate responses to the *meaning* of the image. The inherent, experiential reality of the image is grounded in this pre-verbal and implicit meaning.

Mediality of images and videos

Images and videos only show a surface. While the participants' behavior and the materiality of things can be observed, intentions, motifs and emotions remain covert. Phenomenological approaches assume the superficiality, presence and materiality of images. The difference between visibility and invisibility is pivotal, not the difference between outside and inside (which is significant in hermeneutics). In his work on intentionality, Husserl points out that the perception of an image, e.g. an image of a dice, always implies the invisible. The two-dimensional image conceals at least three sides of the dice, which remain hidden, no matter which perspective is represented. To put it differently: The iconic difference (Boehm 2007) between what is visible and what is invisible, between the picturality of the image and the visualization (of a dice) is constitutive for images (Sternagel 2016, p. 16). What is visible from one perspective constitutes that which is phenomenally invisible (ibid. p. 17).

Perception and the image stand in fundamental relation with each another. Looking at and perceiving an image is only possible if there is a background from which an object (in our example: the dice) stands out. An interplay between what is present (the surface) and what is absent (the rear side of the dice), between the active observation of the visible and the passive perception (cf. Waldenfels 2004, p. 238) of what the image itself shows emerges. The image is thus not an object, not a thing, but is perceived in a perceptual field or horizon. The horizon itself is invisible in the process of seeing (Alloa 2011, p. 235). Yet, as the non-visible, it plays an important role in constituting the image as a whole. The picturality of the image is therefore to be distinguished from the visibility of elements in an image that *show themselves* (in phenomenological terms). Moreover, the presence of the image is not given without its materiality, i.e. its concrete quality, its surface, its composition, its texture or digital resolution.

In producing videos, technical devices capture images and process these into moving images. They can be described as prosthetic forms of technical seeing. Videos and videography have to be regarded as technical forms of producing reality. However, videos offer experiences *in* seeing and experiences *of* seeing. When we watch videos, we see and perceive the reality of the image as a reality under the conditions of medialization and technization of moving images. An analysis and description of videos has to consider this difference. In carrying out such an analysis, we have to bear in mind that in the immediate act of seeing experiences are being made, which can stand in resonance to the ones constitutive for our experiential horizon. The reality of the image as well as the engineered, moving image of the video can be regarded as a "regional ontology" (Hua IV p. 413), i.e. a 'common ground' of experiences for both researchers and participants depicted in videos. This regional ontology or 'common ground' allows to establish a relation of similarity between the experiences of participants and the experiences. The relation of similarity becomes manifest in responses to observed experiences, without pleading for a causal or dualistic approach. Viewing and analyzing videos can thus be regarded as forms of a participatory experience (Beekman 1986), in which corporal embodied responses have to be focused on in particular. Video research assumes a dual responsivity – to the shown (that which is 'real') and to the representation (in its picturality).

Responsivity of images

Primarily, images awaken emotions, disapproval or affinity, embodied reactions and so forth. We are *within* the image before we can distance ourselves from it. We respond to what shows itself in a natural attitude. Through this natural attitude, we naïvely take for granted the reality of the image as an embodied experience of reality in the moment of seeing. Temporal and spatial distance to what is displayed as well as to the mediality of the image is initially not thematic in this aisthetic state of perception and responding (Merleau-Ponty 1965). It becomes thematic as soon as it enters the field of attention. This field is structured by that which shows itself. The showing-itself of the image, i.e. its '*deixis*' (Boehm 2007, pp. 19–21), is to be epistemologically distinguished from that which is visible of the image. It is, so to speak, to be understood as an activity. It does something to us, causes something in us. The affects are thus more specifically described as responses to what shows itself. We respond to images by being affected by them.

Understanding as responding

In observing images and videos, a sphere of inter-corporal responding in which the own and the other intertwine (Waldenfels 2002) emerges, where there is no right or wrong. Someone or something shows oneself/itself to the researcher by expressing oneself/itself; the researcher responds in an embodied-affective way. At the same time, the symbolic surplus of images shows itself in this affect, producing polysemy and polyvalence.

Understanding is therefore not a process of drawing conclusions from the outside to the inside (Dilthey 2010), also not a process of decoding, but an embodied practice of responding. 'Higher', objective or semiotic understanding has its foundation in an elementary live-world, embodied understanding as resonance and responsivity. We are already live in a world structured by understanding (Schütz 1967), before we understand hermeneutically or semiotically. In this practice, embodied externalizations and embodiments incarnate as affects and responses. The embodied-affective intermediate sphere is therefore of great interest for the description of images and videos. Given these remarks on the medium 'video' and the specific experiences it evokes, we will now elaborate on the basics of phenomenological analysis of experiences.

Methodology of phenomenological video analysis

Phenomenological approaches of seeing and understanding open the perspective of researchers to the world that shows itself and – within showing itself – covers, conceals and shadows certain areas (remember the example of Husserl's dice). The phenomenological stance acts in a double movement between appearance and concealment, between letting-see and being-able-to-see – a position towards the world and others that accepts other ways of experiencing in their own right while examining their consequences and their claims of validity. In the following, we will sketch three basic operations of phenomenological exploration of experiences

Description

The first step of phenomenological analysis is description, not interpretation (Brinkmann and Friesen 2018, Brinkmann 2016ab). The description first has to stick to the superficiality and exteriority of the medium: Emotions and motifs cannot be observed, while behavior is visible to the observer. We cannot see the process of learning, we can only observe facial and gestural 'expressions', we are able to see actions not intentions. The "methodological rule" of phenomenological description is thus "not to be concerned with interpretations but only to keep strictly to that which shows itself, regardless of how meager it may be" (Heidegger 1985 [1979], p. 47).

In contrast to hermeneutic interpretation or social-scientific reconstruction, phenomenological description aims at keeping different epistemological levels apart; the visible and the utterable, the implicit and the explicit. With regards to research practice, the difference of having to say something which cannot be said, *but which shows itself* and in showing shows itself *as* something, becomes thematic. At this point, the respect for the matter in question and for the different perspectives on the matter becomes manifest (Brinkmann 2016a, b).

A reflection can aim particularly at the difference between the utterable and the unutterable, the embodied and the verbal, saying and seeing, describing and interpreting. A signification as a subsequent and violent (Foucault 1970) exploitation of "silent experiences" (Husserl 1995, p. 77) always means counterfactually bypassing an unbridgeable, incongruent relation. This form of bypassing cannot occur in the form of a translation (Kalthoff 2008, pp. 11–13) but only as a response, an externalization in the medium of language in resonance to an externalization in the medium of seeing (Brinkmann and Friesen 2018, Brinkmann 2016a, b).

Reduction and variation

A description can, technically speaking, never be practiced without reduction. Reduction takes its starting point with the subjectivity of researchers, i.e. immediate, affective understanding of phenomena, related schemata or concepts as well as scientific models and theories that come to mind when viewing videos. Researchers first try to explicate these immediate responses and trace them back to underlying concepts and theories, then these underlying models of explication are reflected upon separately. In this reflective exercise, ensuing judgments and evaluations are suspended. They are not eliminated but 'put into brackets', trying to keep them from influencing our perception. This skeptical and critical part of phenomenological reduction (Fink 2004, pp. 87–90; Brinkmann 2016a, b) enables researchers to generate a new perspective and perceive unfamiliar and different nuances of the phenomenon. Something can show itself *as something else*, without having to rely on interpretations and theories.

In the ensuing variation of different perspectives, meaning is again pluralized. In a 'playful' variation of perspectives from research of education, but also aesthetical, life-world, political, economical or existential perspectives, researchers try to open new approaches to the phenomenon or video data. Applying different perspectives helps in achieving a temporary estrangement from one's own point of view – not as a result of an active endeavor of the subject, but as a result of opening up for the matter in a mode of passivity. Phenomenology therefore regards methodological self-estrangement in research – as suggested by ethnography (Geertz 1988; Schütz 1971; Malinowski 1922; critical approach: Madden 2010, p. 19; O'Reilly 2012, p. 96) – as paradox and impossible. In addition to this, variation of different perspectives can flesh out invariant characteristics and types of the "matter" by comparison (Heidegger 1994, p. 92).

Description, reduction and variation are applied in the hope that something shows itself even if it potentially 'hides itself' at the same time. The qualitative description has to capture what shows itself *as* something under technical conditions. The technical possibilities of video analysis can provide new means for this endeavor: Watching the video in real time and slowing down and increasing its speed offers different modes of watching. Different possibilities of describing something *as* something occur and enable variations and changes of perspective.

Generating of types and re-theorization

The methodological operations of reduction and variation systematically differentiate between an apprehending perception (a phenomenon) and an operation aiming at analytical insights. Only the latter can be understood as a skeptical and critical operation.

By comparing the described situations, they can be related to each other and thus be distinguished from related, adjoining phenomena. Typical features can be focused on through examining varieties (Loch 1998, p. 314).

Inductive comparisons of similarities allow research operations in which differences appear. Differences and incongruences can again be the motive for a reflective turn towards pre-assumptions and formerly applied models. These become the subject of estrangement or skeptical bracketing. Through the constitution of a dual distance to the field and the responses to what has been seen in the video on the one hand, and to the individual pre-assumptions on the other hand, researchers can enter a reflective process of generating types from research data. Following Husserl, types or categories in qualitative research are then not only generated by abstraction (Husserl 1999, p. 413) and by inductively inferring the general from the particular. The operation of variation as described above is of a "hybrid nature" (ibid.). What is actually perceived and theoretically imagined, what is empirically given and theoretically added in an act of giving meaning to empirical data "conflicts or overlaps" (ibid.). Similar types are therefore not generated inductively from the 'material' or data, but abductively (Peirce 1931, p. 171 following) by reflecting and bracketing. Types are neither re-constructed nor constructed but *show themselves as a general characteristic*, which is found in typical situations through acts of producing meaning (Fink 1978, pp. 13–15; Brinkmann 2014a, p. 217). Adding or generating meaning thus also means to anticipate something which is to show itself as persevering and characteristic in different sets of data. In a second step, this general characteristic has to be constantly reexamined, in order to check if it is still empirically valid by comparing the results against the material or data. It can furthermore serve as substantial critique and cause for a change of pre-existing theories, which are applied in variation. On the basis of empirical research, theories can be validated and the empirically observed situations can be re-theorized. From this empirical-theoretical basis, new theories can be generated.

In the following step, the practice of empirical video analysis will be displayed along the lines of an example from our research. We will also try to show in an exemplary way how pedagogical theory – in this case a theory of interattentionality – can be created through employing phenomenological videographic methodology.

Results and discussion

Phenomenology as style or attitude (Merleau-Ponty 1965, p. 4) has always been concerned with the question whether methodizing the phenomenological approach complies with the fundamental phenomenological attitude. According to this fundamental stance, a scientific and objective quality is not only achieved through method but through an orientation towards the matter or phenomenon, aiming at reflexively-critically decoding the phenomenon, which is what *shows itself in itself.* The relation to the matter also entails a circularity of phenomenological research between matter and our own experience of the matter, between acts of interpretation and acts of deprivation of meaning, between activity and passivity. Such a stance is characterized by a focus on plurality and multidimensionality of meaning and experience and takes ambiguities, phenomena of deprivation, transgression and estrangement into account. Aligned with it is a general skepticism towards scientific dogmatisms and universalized methods, as they rather lead to a reduction, de-contextualization and logification of

live-world meaning (Brinkmann et al. 2015) than to a pluralization of meaning. The following account of analytical steps is therefore an endeavor in rationalizing a circular research process infused with manifold reflective loops from an *ex-post* perspective and grouping the different steps so they can be retraced methodically. This paper does not claim to present a finalized method or *the* phenomenological method. Our method entails two phases. In the first phase (6.1), which involves five steps, experiences are collected, put into writing and are documented for video analysis. In the second phase (6.2), which involves six further steps, the collected experiences are analyzed with regard to phenomenological methodology and by using the transcription software *Feldpartitur* (Moritz 2010).

Participatory experience in the field

In the first phase, we proceed in five steps of collecting experiences, putting them in writing and recording them:

a) The research process begins with an extended stay in the field, i.e. pedagogical settings. In the mode of a *participatory experience* (Beekman 1986), visits to the classroom are undertaken and experiences and observations in the field are collected, in order to get an impression of the atmosphere, the specific interpersonal relations in the field and the spatial situation. Embodied, atmospheric and social aspects of teaching are central to this first exploration (Geier and Pollmanns 2016).

b) In *exemplary descriptions* (Lippitz 1984), observed experiences of participants as well as the experiences made by researchers while observing are described as closely as possible and in a qualitatively substantial way (van Manen 2014). These exemplary descriptions are written documentations sensitive to experience, aiming at producing a surplus of meaning. In the process of writing, the aim is to apply the aforementioned methods of reduction and variation reflexively to generate a "concise" description of the situation at school, open to different readings (Meyer-Drawe 2012, p. 12). The descriptions can serve as documents of a first reflective breakthrough, sensitive to problems of a dual ex-post character (of *having made experience*s and *documenting experience*) and to the difficulty of signifying "silent experiences" (Husserl 1995, p. 77) and therefore the problem of explicating the implicit (see sect. "Description"). Exemplary descriptions are not a final product of research (as phenomenological research of anecdotes would suggest, see van Manen 1990, 2014). They rather serve the purpose of making individual experiences communicable inter-subjectively and enable conversations with other researchers (Lippitz 1984, p. 14).

c) In a third step, *descriptions are analyzed in a research group*. In these data sessions, the focus of further research proceedings is discussed in greater detail. Affects and responses to the described experiences are collected and different perspectives regarding the exemplary descriptions are generated in the mode of variation. Also, the steps of reduction and variation are applied once more to re-write and reexamine existing descriptions. The guiding question in this phase of the research process is how specific descriptions have been developed, how the focus of attention in the field shapes the perspective of descriptions and, more

generally, what can be said about the constitution of specific experiences accounted for in descriptions.

d) The *actual research perspective* can only be determined after the research focus is refined through the discussion of descriptions. At this point, it is decided which classes or which specific pedagogical situations will be videotaped and how the subsequent research process should be designed. In the project we are referring to in this paper, the focus was laid on attentiveness (students) and showing and pointing (teachers) in class.[9] Unlike ethnographic approaches (Schensul and LeCompte 2013, p. 91 following), which first find their focus in the field, our approach suggests to employ a flexible perspective, which is already defined before the second phase of field work starts. This perspective can and should be challenged and put to into question by video documents and further analysis, however.

e) In a fifth step, various lessons are *taped* with two video cameras mounted on stands but able to swivel, filming from antagonistic perspectives. The goal is to capture the students' and the teacher's perspectives, reflecting the educational situation of shared experiences (Brinkmann 2018) and the perspective of the researcher, who is focusing on attentiveness and showing (Brinkmann 2016b). After filming specific classes, semi-structured interviews with teachers are conducted. Thus, the teacher's perspective is addressed and insight into didactic relations can be gained. The collected documents (exemplary descriptions, interviews, videos and transcripts of incomprehensible video sequences) form a multimodal data corpus, in which each document describes, documents and signifies experiences differently.

Phenomenological video analysis: Showing, response, interattentionality

To make the practice of phenomenological video analysis comprehensible in six steps, we will illustrate the procedure with an example from our research. The following sample description of a video sequence is taken from a chemistry class in 9th grade:

The students sit at their desks, which are positioned so that the students face the front. The students seem relaxed, the atmosphere is quiet. Some students support their heads with their arms, while others lean back on their chairs. The teacher, Mr. H., shows different bottles and containers containing chemical substances. He states that they all contain the same amount of substance (one mole, a chemical unit). He asks the students how different masses and volumes of the substances have come into being. Mr. H. speaks calmly and the class faces him. Some students frown and rub their cheeks and foreheads. They raise their hands and try to answer Mr. H's questions, but the 'correct' answer does not seem to be among the student's suggestions. Students support each other while answering, stepping in when another one wavers. Mr. H. shows new containers to the class. These are filled with chemical elements but also with peas and walnuts. Finally, he presents a plastic model of a hydrogen particle to the students. He reminds the students that they had addressed a similar problem in the previous class. The students start to go through their notes, raise their hands again, but still fail to answer the question. Some of them merely stare at their notes while others show their neighbors something in their notes or go through their neighbor's notes. None of

the students seems to be occupied with anything other than the content of Mr. H's class. Mr. H. now points to the periodic table of elements with a pointer and to equations he had drawn on the board earlier. While pointing, his posture remains relaxed, his gestures are not very space consuming and, apart from an occasional smile, his facial expressions are not particularly distinct (Figs. 1, 2, 3, 4)[10].

a) Phenomenological video analysis begins with a first viewing of the video, which can be described as *perceptual viewing*. Researchers observe themselves, their own affects and embodied expressions while watching the video. The video's materiality and inherent reality enables responses to the content and the experiences gained while watching (in the mode of responsivity, see sect. "Responsivity of Images"), as well as comprehension of individual responses as embodied-affected ways of understanding (4.4). The focus in this step lies especially on the embodiments (3.) of the students. Their postures and facial expressions as well as their gestures imply that their attention is engaged in the course of class – they are attentive (Brinkmann 2016b). If the theory of a responsive event as an anticipation of the possible perspectivation, the process of 'laying-in' meaning (5.3), is applied, embodiments can come into view as a response to engaging attention. This puts the focus on the operations of showing carried out by the teacher and poses a specific question of the correlation between becoming attentive, responding to others/the other and showing. To an outside observer and at first glance, the students' attentiveness stands in contrast to the uninspiring subject matter and the rather unsuccessful discourse in class: Despite the fact that the students fail to answer or understand the question, they remain attentive.

b) In a second step, *sequences are selected* to be further analyzed. Considering the question posed above, further situations from the video material are collected, which point to something similar. These sequences are presented and discussed in data sessions. Their relevance for the further research process as well as the question of their exact length is decided in these sessions. This step of the research process is based on the theories of visual culture as well on the methodological operations mentioned above (4. and 5.), so that the selection of sequences can once more be critically questioned regarding subjective and theoretical pre-assumptions. Usually, at the end of the selection process, several sequences of about one to three minutes are chosen.

c) Related to the aforementioned step is the ascertainment of a *first understanding of the situation*. Experiences of resonance while watching the video are expressed, collected, sorted and rendered subject of discussion as a shared experience (4.4) in data sessions. The discussion and pluralization of different perspectives opened through a first understanding and different experiences *in* understanding is thus already part of this analytical step. The given example of a classroom situation was understood in very different ways in our data session, e.g. as a demonstrative and well-illustrated lesson, as teacher-centered instruction, as an example for boring or – on the complete contrary – interesting and engaging teaching.

d) In a fourth step, the *software Feldpartitur for analyzing videos* (Moritz 2010, 2011) is first applied. The user surface of this software depicts a video in its sequential through a chart and frames of the video. In addition to this, the software offers a perspective of

synchronicity by using score notation (similar to sheet music for large arrangements), to account for the complexity of pedagogical situations.[11] The use of symbols instead of verbal signifiers in the transcription enables a change in the 'register' of signification. Symbols are more open to meaning and interpretation and enable a signification less oriented on grammar and the logic of language (5.1) (Fig. 5).

e) In a fifth step, a *phenomenological analysis* is carried out. Subjective theories as well as scientific ones, pre-assumptions and pre-experiences shaping the perspective of the researchers are taken into account to later operatively identify the 'matter' or phenomenon itself. In a reduction (5.2), subjective theories evolving from personal experiences at school, normative ideas on good teaching practice or personal learner's biographies are bracketed. At the same time, scientific or theories from popular science are critically determined and bracketed as well. Psychological, neuroscientific or sociological theories, for example, can shape perception and prefigure normative ideas, "shadowing" (Fink 2004, p. 189) the view on data. Bracketed elements are not put ad acta, they can be reconsidered in variation (5.2) together with further respects (e.g. concerning didactics, theories of *Bildung* or theories of teaching). Meaning is thus pluralized once more. This fifth step differs from the first and the third: In *perceptual viewing* and in the *first understanding*, a reflective, methodically guided viewing, judgment or categorization is avoided in order to do justice to the claim of the phenomenon and our responses to it. In the *phenomenological analysis*, becoming attentive to affects and responsivity is not the issue, they rather form the center of the reflective approach.

In the example above, we first noticed embodiments, followed by an atmosphere of shared attentiveness and the specific gestures of showing and pointing of Mr. H. These impressions could be analyzed with pedagogical theories of showing and pointing (Prange

Fig. 1 Mr. H. shows container with walnuts. Rights to the use are with the authors
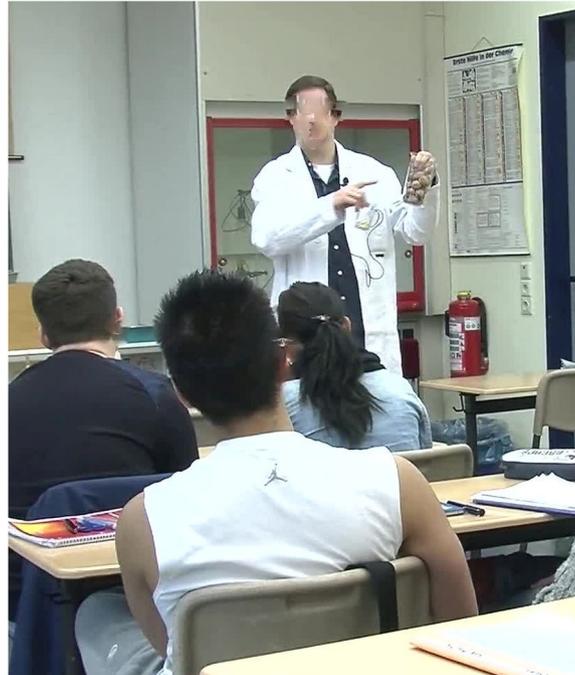
Fig. 2 Mr. H. shows container with walnuts. Rights to the use are with the authors

2005), theories of materiality of teaching (König 2012), theories of power in pedagogical relations or theories of 'good' teaching (Hattie 2009). All these respects can be explicated and bracketed in reduction.

As an effect of carrying out such a reduction, students' embodiments move into the spotlight. The students in our example position themselves towards themselves in a social sphere – in front of the teacher and their fellow students – and show embodied expression often associated with a certain state of attentiveness (3.). The students' frowns, the fact that they face the teacher and fellow students as well as the fact that they are checking their notes and raise their hands show the teacher and their peers that class is followed attentively. The teacher responds to these embodiments with his own embodiments (of showing) and by addressing his students' concerns and questions regarding the subject matter. He systematically shows new models and demonstrative objects and poses new questions in response to the students' incomprehension. This can only be successful in an atmosphere of

Fig. 3 Students raise their hands and respond to others. Rights to the use are with the authors

Fig. 4 Students show each other approaches to finding a solution in their notes. Rights to the use are with the authors

interattentionality or shared attentiveness, in which everyone can expect mutual attention. This mutual attention exists not only between students and teachers, but also among students who are attentive towards each other – which we can see when they are adding to their fellow students' remarks or showing them their notes. By doing so, they not only respond to the call or claim of the teacher but also to the tacit call of their classmates. If we take a look at the teacher's operations of showing, it becomes obvious that different forms of showing and pointing are applied: Sometimes he *demonstrates* things, *points at* specific details or *points out* a connection to previously studied subject matter. The contents, which his gestures are directed to or which are represented by his gestures, are of different quality as well. He shows familiar things from the life-world of the students (walnuts etc.), models of structures invisible to the naked eye (atom or particle models) and finally abstractions in form of calculations and equations. An embodied responsive event meets the misunderstanding or incomprehension of the students on the basis of language – the students cannot state the 'correct' answer – in which the students become attentive and the teacher responds to them in various forms of embodied showing. These fracture lines of teaching, coming into being by misunderstanding and incomprehension or negative experiences of teaching and learning, are of specific interest to pedagogical-phenomenological empirical research.
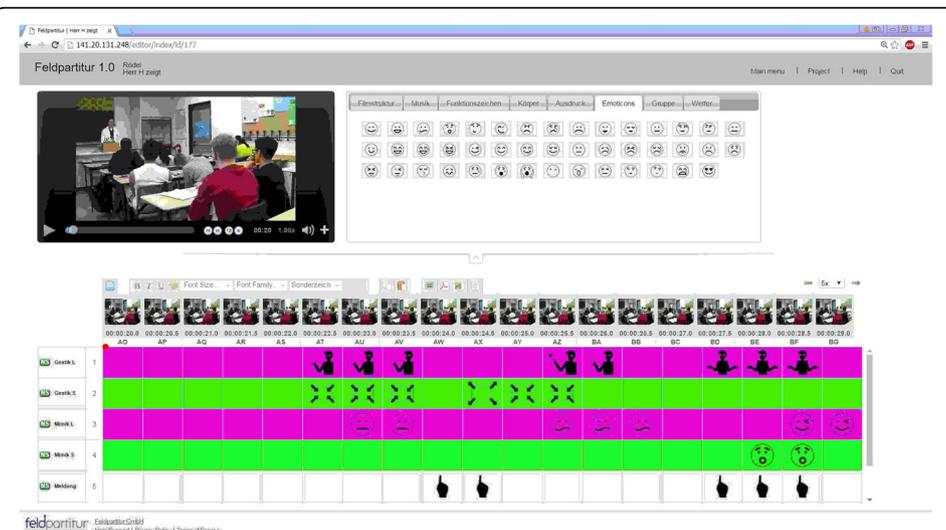

Fig. 5 Screenshot of the software *Feldpartitur* in use. Image results from work with the program *Feldpartitur* (http://www.feldpartitur.de/en/). Use has been approved through Feldpartitur

Symbols	Types of showing and pointing
	Calling for attention: Demanding attention (generalized)
	Pointing at: Directing attention in a specific direction
	Showing something: Showing a specific object
	Pointing something out: Focusing the attention to a detail → understanding
	Demonstrating: Showing in the form of a demonstration
	Showing oneself: Showing oneself as someone particular
	Socratic Showing: Showing that one does not know something, pointing out problems and blanks
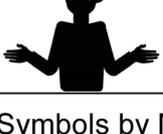
(Symbols by Moritz/Feldpartitur)

Fig. 6 Different types of showing and pointing. The symbols of different gestures were developed by the *Feldpartitur*-team following a suggestion of the research team at the Department for Philosophy of Education at Humboldt-University Berlin [https://www.erziehungswissenschaften.hu-berlin.de/en/allgemeine-en]. Use has been approved through Feldpartitur

f) The analyzed situations can now be *compared to and contrasted with* other sequences, which can be taken from other classes as well. Other types of data, such as teacher interviews, descriptions and transcripts can be consulted as supplementary and comparative material. In this step, the aim is a precise analysis of "pedagogical situations" (Brinkmann 2016b, 2018). Additionally, types of pedagogical interactions and specific relations can be generated. Phenomenological video analysis investigates typical situations, or rather typical experiences in specific situations in this sixth step.

Concerning our example, moments of shared attentiveness were recognized in contrast to other situations. In extensive reflective loops we developed a theory of interattentionality in the classroom (Brinkmann 2016b). Furthermore, we were exploring

Fig. 7 Example for Calling for attention. Rights to the use are with the authors

additional examples of specific forms of embodiment in a responsive event. The assumption that the operations of showing were directed at the attentiveness of the students and at sustaining this attentiveness was guiding our inquiry. In observing various gestures of Mr. H. (and other teachers), different types of showing and pointing could be mapped out (Figs. 6, 7, 8, 9, 10, 11, 12).

Showing by using gestures often precedes the spoken word. Pointing at something, demonstrating something and calling for attention frequently intertwine. We also found that often something is shown and related to something someone else has said or shown *by showing it again*, while speaking. Thus, a moment of intensive shared attentiveness and showing is embedded in a responsive event of interattentionality.

Fig. 8 Example for Calling for attention. Rights to the use are with the authors

Fig. 9 Example for Socratic showing. Rights to the use are with the authors

Furthermore, something is shown, which cannot show itself as a concrete thing, for example the mole, an abstract unit in a scientific system of symbols. At the same time, this abstraction is explicated on a concrete life-world example (here: walnuts or a pack of 12 eggs), marking a decisive moment (not only) for science classes. Showing and pointing serve as a "mediator" of the phenomenological difference (Brinkmann 2009) between concrete life-world knowledge and abstract scientific knowledge. At the same time, showing renders plausible how one thing adds to another – a core element of teaching in schools (Fig. 13)
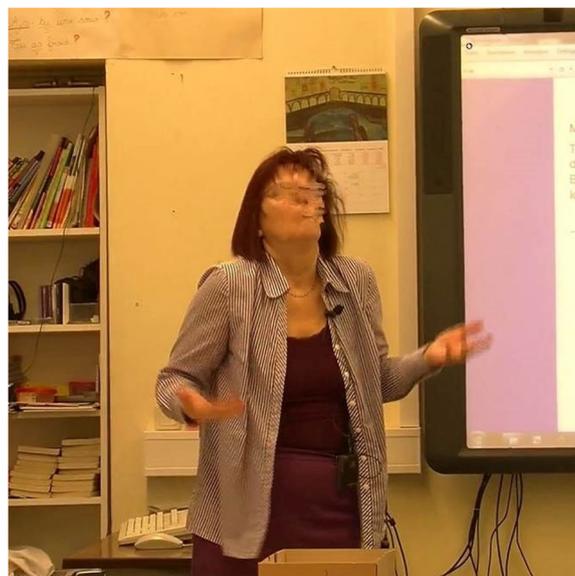

Fig. 10 Example for Socratic showing. Rights to the use are with the authors

Fig. 11 Example for Pointing at something. Rights to the use are with the authors

Conclusions

The phenomenological approach is not a reconstructive but a productive approach. In order to establish new pedagogical theories, researchers can question and re-formulate existing theories on an empirical base and re-frame and re-adjust discourse on pedagogical phenomena (in our case: attentiveness and showing in educational settings). The approach suggested in this paper combines phenomenological theories of learning as pedagogical experience (Brinkmann 2011) with theories of showing (Prange 2005) form educational research to develop a theory of pedagogical interattentionality. Pedagogical situations are rendered as situations of shared attentiveness, in which comprehension and incomprehension occur (Brinkmann 2016b). In this exemplary study, we

Fig. 12 Example for Pointing at something. Rights to the use are with the authors
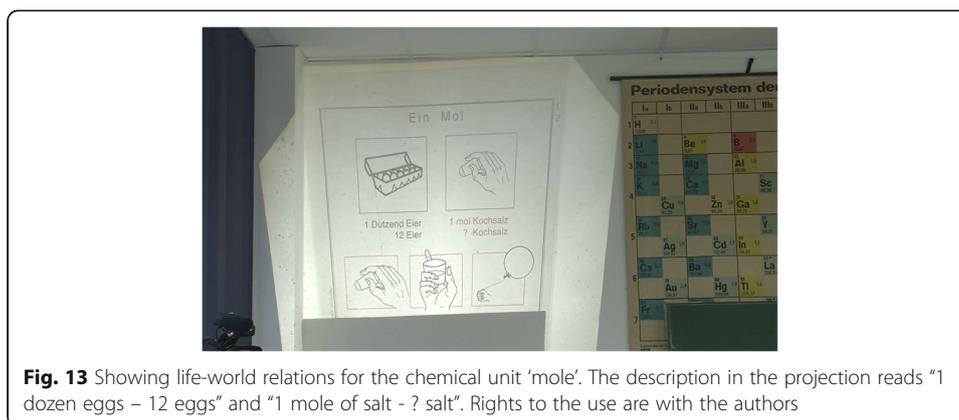
Fig. 13 Showing life-world relations for the chemical unit 'mole'. The description in the projection reads "1 dozen eggs – 12 eggs" and "1 mole of salt - ? salt". Rights to the use are with the authors

also pointed out different types of showing and pointing related to (inter)attentionality. The developmental context of these types – a language critical, lived-body centered and situation based research practice – not only entails that they are described in theoretically elaborated descriptions but that they are turned into symbols which can be used in the video analysis software *Feldpartitur* for upcoming research projects. These new symbols are designed in a way that makes them applicable for various research contexts, beyond classroom centered research as presented above. Further findings of the research project encompass a precise and qualitatively rich description of the role of things and materials in classrooms or more generally: of the role materiality plays in processes of learning (Wilde 2015). These individual investigations are related to learning and teaching in the classroom and therefore have to include the specificity of classroom situations. At the same time, they can contribute to more general reflections on the structure of classroom interaction. In our current research, teaching in the classroom is presented as an interattentional event determined by mutual pretence – teachers pretend to not know in order to pose questions and students feign interest in these questions and commitment to the subject matter (Brinkmann 2017). Teaching furthermore follows a specific logic, aiming at transforming life-world knowledge into scientific knowledge. Teaching thus has a specific character of artificiality. Similar to the fracture lines of incomprehension in teaching and learning, this order of artificiality is also questioned and interrupted by teachers and students at times. The logic of teaching is temporarily undermined by these interruptions but remains stable all the same and is confirmed by teachers as well as students.

Phenomenological and videographic perspectives on experiences in learning and teaching not only offer precise analyzes of phenomena, they also provide valuable stimuli for forms of teaching and learning and didactic conceptualization (Brinkmann 2014b) in connection with a theory of interattentional teaching in classrooms.

Endnotes

[1]Experience is seen as an ambiguous phenomenon between making-an-experience (process) and having-an-experience (product) (Brinkmann 2011; Waldenfels 2002). Phenomenological reflection aims at exploring the productivity of making-an-experience, capturing experience as a process. Theories of embodiment (Merleau-Ponty 1965) and of intentionality (Hua XI, p. 165) lead to an understanding of experiences as pathic events, i.e. an event in which we undergo something coming

from the world around us (Waldenfels calls this *pathos*, 2011 p. 27; 2007). In pedagogical perspective, Dewey has marked the pathic or disturbing character of experiences as the point, where learning and inquiry begin (Dewey 2008). We would like to thank Sophia Zedlitz for her help in translating this text.

[2]Phenomenological description as an experience-based and experience-related account aims at grasping processes of experience through description and variation of various modes of perception. Temporal, corporal, emotional modes and modes of interaction can thus be described in their co-occurrence, without introducing a hierarchy.

[3]In his work *Being and Time*, Heidegger differentiates between things ready-to-hand and things un-ready-to-hand. Things are ready-to-hand, if they show themselves and can be inferred from their practical use (Heidegger 1962, p. 103). In their self-evident use, they remain unquestioned. In the experiences of things un-ready-to-hand, this self-evidence is challenged (ibid. p. 104) and things show themselves as conspicuous, intrusive and defiant. Only then can the meaning of being (*Sinn von Sein*) be questioned (ibid. p.103).

[4]*Widerfahrnis* or pathos is the passive and painful experience of a non-identical self (Waldenfels 1998). In pathos, something "alien" (Waldenfels 2011) intrudes the own horizon or frame o reference and demands a response of the person who is experiencing (Meyer-Drawe 2011, p. 199; Waldenfels 2009, p. 31, also Waldenfels 2008, p. 96). Pathos causes a rupture of the previous structure of experience. On this basis, new and formative experiences can occur.

[5]Life-world, experience and (inter-)corporality are central terms of the late Husserlian phenomenology (cf. Hua VI). Life-world means the world we live in, not only the objective-material 'environment' that is given, but also the shared world of our collected experiences, interpretations and assumptions about the world. Life-world is the world we always presuppose in "unwavering certainty that world is real" (Lippitz 1992, p. 300). Inter-corporality is a term from a phenomenology of the lived body (see sect. "Externalization, Embodiment, Responsive Event"). It designates the sphere between embodied subjects, in which a responsive event can occur between the own and the other.

[6]Husserl accentuates the difference between that which is experienced with and through the lived body and its subsequent linguistic fixation (Husserl 1995, p. 77). Merleau-Ponty (1968) points out that the retrospective articulation of an experience is not simply an exact representation of this very experience. The linguistic fixation rather tries to articulate something which escapes the fixation. Interpreting a pre-verbal, "silent" meaning of experience (ibid.) is therefore a practice of signification. The posteriority of the description of experience has become subject to an intensive reflection in phenomenology, ethnomethodology and ethnography (see sect. "Reduction and Variation").

[7]In qualitative social research, mearning is often regarded as latent meaning of implicit structures (as in objective hermeneutics, see Wernet 2009), of an implicit habitus (Bourdieu 1990), a "practice" (Schatzki et al. 2001; Schatzki 2017, Kemmis et al. 2017) or an implicit horizon of meanig (Gadamer 2013; Buck 1981). Meaning is thus something which represents itself in empirical data. It is only in the reconstruction of latent meaning through knowing and apprehending researchers that meaning can be articulated. The self-Authorization of the interpreter legitimizes the reconstruction of a latent world of meaning as a representation of the subconscious and unexpressed.

[8]Central points of reference for this argument are theories of non-proportionality of images, the fundamental pictorality of experience, presence (Gumbrecht 2012, pp. 240–260) and materiality (Mersch 2011) tracing back to Husserl and Heidegger.

[9]In the context of research project *SZeNe* at Berlin and Freiburg, we observed different classes (German, English, Chemistry) in primary, comprehensive and secondary, from year 6 to 9. We followed lessons and student groups for over a year and created 46 field notes and phenomenological descriptions. We took 16 videos in 8 different classes and subsequently interviewed teachers. For the results of this study see sect. "Results and Discussion".4, the exemplary description in sect. "Phenomenological Video Analysis: Showing, Response, Interattentionality" and the works of Brinkmann 2014b, 2015, 2016c; Rödel 2015; Wilde 2015.

[10]Figures 1, 2, 3, 4 and 7, 8, 9, 10, 11, 12, 13 result from video analytic research at the Department for Philosophy of Education at Humboldt-University Berlin. Rights to the use of the images are with the authors. Figures 5 and 6 result from work with the program *Feldpartitur* (http://www.feldpartitur.de/en/). The symbols of different gestures of showing in Fig. 6 were developed by the *Feldpartitur*-team following a suggestion of the research team at the Department Humboldt-University (https://www.erziehungs-wissenschaften.hu-berlin.de/en/allgemeine-en).

[11]Bezemer and Mavers (2011) point out, that the multimodality video data requires a specific kind of transcription, taking the different spheres of social (or pedagogical) interaction into account: language and the spoken word, movement, mimics, gestures, materiality and spaciality of surroundings. A video software should be able to depict these multimodal levels and also allow users to switch between different perspectives in the process of analysis. For our project, we chose the Software Feldpartitur as it covers all these features and was readily available to our research team. Other software offering similar opportunities would be *Studiocode* and *Videograph.*

Availability of data and materials
The complete video data this paper refers to cannot be shared publicly (German data protection regulations). However, single sequences can be shared through safe sharing platforms upon request (or if the journal provides safe data sharing).

Authors' contributions
Malte Brinkman and Severin Sales Rödel contributed equally to the research presented in this paper, to the analysis of the results and to the writing of the manuscript.

Competing interests
This article has not been published or submitted for publication elsewhere.

Publisher's Note
Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

References
Alloa E (2011) Das durchscheinende Bild. Konturen einer medialen Phänomenologie, Diaphanes, Zürich
Bedorf T (2010) Der Dritte als Scharnierfigur. Die Funktion des Dritten in sozialphilosophischer und ethischer Perspektive. In: Eßlinger E, Schlechtriemen T, Schweitzer D, Zons A (eds) Die Figur des Dritten. Ein kulturwissenschaftliches Paradigma. Suhrkamp, Berlin, pp 125–136
Beekman T (1986) Stepping inside. On participant experience and bodily presence in the field. The Journal of Education 168(3):39–45

Bezemer J, Mavers D (2011) Multimodal transcription as academic practice: a social semiotic perspective. Int J Soc Res Methodol 14(3):191–206

Boehm G (2007) Wie Bilder Sinn erzeugen: Die Macht des Zeigens. University Press, Berlin

Bourdieu P (1990) The logic of practice. Polity Press, Oxford

Brinkmann M (2009) Fit für PISA? Bildungsstandards und performative Effekte im Testregime. Vorschläge zur theoretischen und pädagogischen Differenzierung von Bildungsforschung und Aufgabenkultur. In: Bilstein J, Ecarius J (eds) Standardisierung – Kanonisierung. Springer VS, Wiesbaden, pp 97–116

Brinkmann M (2011) Pädagogische Erfahrung – Phänomenologische und ethnographische Forschungsperspektiven. In: Breinbauer M, Weiß G (eds) Vom bildungstheoretischen Ort/Nicht-Ort des Empirischen. Aktuelle Perspektiven und Einsatzpunkte Allgemeiner Erziehungswissenschaft. Königshausen & Neumann, Würzburg, pp 61–80

Brinkmann M (2014a) Verstehen, Auslegen und Beschreiben zwischen Hermeneutik und Phänomenologie. Zum Verhältnis und zur Differenz hermeneutischer Rekonstruktion und phänomenologischer Deskription am Beispiel von Günther Bucks Hermeneutik der Erfahrung. In: Schenk S, Pauls T (eds) Aus Erfahrung lernen. Anschlüsse an Günther Buck. Schöningh, Paderborn, pp 199–222

Brinkmann M (2014b) Wiederkehr der Übung?! Befunde der Übungsforschung für Unterricht und Aufgabenstellung. SEMINAR - Lehrerbildung und Schule 20(4):114–129

Brinkmann M (2015) Phänomenologische Methodologie und Empire in der Pädagogik. Ein systematischer Entwurf für die Rekonstruktion pädagogischer Erfahrungen. In: Brinkmann M, Kubac R, Rödel S (eds) Pädagogische Erfahrung. Theoretische und empirische Perspektiven. Springer, Wiesbaden, pp 33–59

Brinkmann M (2016a) Repetition and transformation in learning. A hermeneutic and phenomenological view on transformative learning experiences. In: Laros, a, Fuhr, T, Taylor, E W (eds) transformative learning meets Bildung. Sense Publishers, Rotterdam, pp 73–84

Brinkmann M (2016b) Aufmerken und Zeigen. Theoretische und empirische Untersuchungen zur pädagogischen Interattentionalität. In: Müller J, Nießeler A, Rauh A (eds) Aufmerksamkeit. Neue humanwissenschaftliche Perspektiven. Transcript, Bielefeld, pp 115–148

Brinkmann M (2016c) Phenomenological theory of Bildung and education. In: Peters M (ed) Encyclopedia of educational philosophy and theory. Springer, Singapore

Brinkmann M (2017) On the didactical relation of showing, pointing and attention in classroom interactions in theoretical and empirical research in German pedagogy. In: Meyer H, Benner D (eds) Beiträge zum chinesisch-deutschen Didaktik-Dialog. Klinkhardt, Bad Heilbrunn, pp 114–133

Brinkmann, M (2018) Phänomenologie und Pädagogik der frühen Kindheit – Erfahrungsstrukturen und Reflexionskategorien. In: Dietrich, C, Stenger, U, Stieve, C (eds) Theoretische Zugänge zur Pädagogik der frühen Kindheit. Eine kritische Vergewisserung. Beltz Juventa, Weinheim/Basel (in print)

Brinkmann M, Friesen N (2018) Phenomenology and education. In: Smeyers P (ed) International handbook of philosophy of education. Springer International Handbooks of Education. Springer, Cham, pp 591–608

Brinkmann M, Kubac R, Rödel S (2015) Einleitung. In: Brinkmann M, Kubac R, Rödel S (eds) Pädagogische Erfahrung. Theoretische und empirische Perspektiven. Springer, Wiesbaden, pp 1–9

Buck G (1981) Hermeneutik und Bildung. Elemente einer verstehenden Bildungslehre, Fink, München

Derry S, Pea R, Barron B, Engle R, Erickson F, Goldman R, Hall R, Koschmann T, Lemke J, Sherin M, Sherin B (2010) Conducting video research in the learning sciences: guidance on selection, analysis, technology, and ethics. J Learning Sci 19(1):3–53

Dewey J (2008) The Middle works 1899-1924. In: Volume 9: democracy and education. Southern Illinois University Press, Carbondale

Dilthey W (2010) Selected works, Volume III: The Formation of the Historical World in the Human Sciences. Princeton University Press, Princeton

Erickson F (2006) Definition and analysis of data from videotape: some research procedures and their rationales. In: J L, Green JL, Camilli G, Elmore PB, Skukauskaite WA, Grace E (eds) Handbook of complementary methods in education research. Lawrence Erlbaum Associates, Mahwah, pp 177–191

Erickson F (2011a) Uses of video in social research: a brief history. Int J Soc Res Methodol 14(3):179–189

Erickson F (2011b) Reflections on practice, teaching/learning, video, and theorizing. In: Koschmann T (ed) Theories of learning and studies of instructional practice. Springer Natuer, Heidelberg, pp 385–402

Fink E (1978) Grundfragen der systematischen Pädagogik. In: Schütz E, Schwarz F-A (eds) . Rombach, Freiburg

Fink E (2004) Operative Begriffe in Husserls Phänomenologie. In: Schwarz F-A (ed) Nähe und Distanz. Phänomenologische Vorträge und Aufsätze. Karl Alber, Freiburg, pp 180–204

Flewitt R (2006) Using video to investigate preschool classroom interaction: education research assumptions and methodological practices. Vis Commun 5:25–50

Flewitt R, Hampel R, Hauck M, Lancaster L (2009) What are multimodal data and transcription? In: Jewitt C (ed) The Routledge handbook of multimodal analysis. Routledge, Milton Park, pp 40–53

Foucault M (1970) The order of things. Tavistock Publications, London

Gadamer H-G (2013) Truth and method. Bloomsbury, London

Geertz C (1988) Works and lives. In: The anthropologist as author. Polity Press, Oxford

Geier T, Pollmanns M (2016) Was ist Unterricht? Zur Konstitution einer pädagogischen Form. Springer VS, Wiesbaden

Goldman R, Pea R, Barron B, Derry SJ (eds) (2007) Video research in the learning sciences. Routledge, London

Gumbrecht H (2012) Präsenz. Suhrkamp, Berlin

Hattie J (2009) Visible Learning. A Synthesis of over 800 Meta-Analyses relating to Achievement. Routledge, New York

Heath C, Hindmarsh J, Luff J (2010) Video in qualitative research. Analysing social interaction in everyday life. Sage, London

Heidegger, M (1962) Being and time (trans: Macquarrie, J, Robinson, E). Blackwell, Oxford

Heidegger, M (1985 [1979]) History of the Concept of Time. Prolegomena (trans: Kisiel, T). Indiana University Press, Bloomington https://epdf.tips/history-of-the-concept-of-time-prolegomena-studies-in-phenomenology-and-existentfceecb8a4be254ed4f1cfd7c00249d4592011.html. Accessed 12 Aug 2018

Heidegger M (1994) Gesamtausgabe. II Abteilung: Vorlesungen, 1919-1944. Vittorio Klostermann, Frankfurt a M

Husserl E (1995) In: Ströker E (ed) Cartesianische Meditation. Eine Einleitung in die Phänomenologie. Meiner, Hamburg

Husserl E (1999) In: Landgrebe L (ed) Erfahrung und Urteil. Untersuchungen zur Genealogie der Logik. Academia, Prag

Jewitt C, Bezemer J, O'Halloran J (2016) Introducing multimodality. Routledge, New York

Kalthoff H (2008) Einleitung: Zur Dialektik von qualitativer Forschung und soziologischer Theoriebildung. In: Kalthoff H, Hirschauer S, Lindemann G (eds) Theoretische Empirie. Zur Relevanz qualitativer Forschung. Suhrkamp, Frankfurt a. M, pp 8–34

Kemmis, S, Edwards-groves, C, Lloyd, A, Grootenboer, P, Hardy, I and Wilkinson, J (2017) Learning as being ,stirred into practice. In: Grootenboer, P, Edwards-Groves, C, Choy, S (ed) Practice Theory Perspectives on Pedagogy and Education. Practice, Diversity and Contestation. Springer Nature, Heidelberg. 45–65

Knoblauch H, Baer A, Laurier E, Petschke S, Schnettler B (2008) Visual Analysis. New Developments in the Interpretative Analysis of Video and Photography Forum: Qualitative Social Research 9(3)

Knoblauch H, Schnettler B, Raab J, Soeffner H-G (eds) (2012) Video analysis. Methodology and methods. Qualitative audiovisual data analysis in sociology. Peter Lang, Frankfurt am Main

König G (2012) Das Veto der Dinge. Zur Analyse materieller Kultur. In: Priem K, König GM, Casale R (eds) Die Materialität der Erziehung: Kulturelle und soziale Aspekte pädagogischer Objekte, 58. Weinheim, Sonderheft der Zeitschrift für Pädagogik. Beltz, pp 14–31

Kress G, van Leeuwen T (2006) Reading images. The grammar of visual design. Routledge, London

Lippitz W (1984) Exemplarische Deskription. Pädagogische Rundschau 38(1):3–22

Lippitz W (1992) Lebenswelt - kritisch betrachtet. Ein Wort und viele Konzeptionen. Zur Karriere eines Begriffs. Neue Praxis 22(4):295–311

Lippitz W (2003) Differenz und Fremdheit. Peter Lang, Frankfurt a. M

Loch W (1998) Die allgemeine Pädagogik in phänomenologischer Hinsicht. In: Brinkmann W, Petersen J (eds) Theorien und Modelle der allgemeinen Pädagogik. Auer, Augsburg, pp 308–333

Madden R (2010) Being ethnographic: a guide to the theory and practice of ethnography. London, Sage 2010

Malinowski B (1922) Argonauts of the western Pacific: an account of native enterprise and adventure in the archipelagos of Melanesian new Guinea. Dutton, New York

Merleau-Ponty M (1965) Phenomenology of perception. Routledge & Kegan Paul, London

Merleau-Ponty M (1968) The visible and the invisible, followed by working notes trans. Northwestern University Press, Evanston, By Alphonso Lingis

Mersch D (2002) Was sich zeigt. Materialität, Präsenz, Ereignis. Fink, München

Mersch, D (2011) Materialität und Bildlichkeit. www.dieter-mersch.de/.cm4all/iproc.php/Mersch%20Schrift_Bild_Zeichnung_Graph.pdf?cdp=a Accessed 12 Aug 2018

Meyer-Drawe K (1991) Leibhaftige Vernunft – Skizze einer Phänomenologie der Wahrnehmung. In: Fellsches J (ed) Körperbewußtsein. Die Blaue Eule, Essen, pp 80–97

Meyer-Drawe K (2011) Staunen - ein ,sehr philosophisches Gefühl. Etica & Politica 13(1):196–205

Meyer-Drawe K (2012) Vorwort. In: Schratz M, Schwarz JF, Westfall-Greiter T (eds) Lernen als bildende Erfahrung. Vignetten in der Praxisforschung. StudienVerlag, Innsbruck, pp 11–15

Moritz C (2010) Die Feldpartitur. Mikroprozessuale Transkription von Videodaten. In: Corsten M (ed) Videographie praktizieren. Herangehensweisen, Möglichkeiten und Grenzen. Springer VS, Wiesbaden, pp 163–193

Moritz C (2011) Die Feldpartitur. In: Multikodale Transkription von Videodaten. Springer VS, Wiesbaden

Peirce C (1931) Collected papers, vol 5. Cambridge University Press, Cambridge, Lecture Vl. Three Types of Reasoning

Plessner H (1976) Die Frage nach der Conditio humana. Suhrkamp, Frankfurt a. M

Plessner H (2003) Gesammelte Schriften Vol. VII. Suhrkamp, Frankfurt a. M

Prange K (2005) Die Zeigestruktur der Erziehung. Grundriss der Operativen Pädagogik, Schöningh, Paderborn

Reckwitz A (2003) Toward a theory of social practices. A development in Culturalist theorizing. European Journal of Social Theory 5(2):245–265

Rödel S (2015) Der Andere und die Anderen. Überlegungen zu einer Theorie pädagogischen Antwortgeschehens im Angesicht von Dritten. In: Brinkmann M, Kubac R, Rödel S (eds) Pädagogische Erfahrung. Theoretische und empirische Perspektiven. Springer, Wiesbaden, pp 199–222

Schatzki T (2017) Practices and learning. In: Grootenboer P, Edwards-Groves C, Choy S (eds) Practice Theory Perspectives on Pedagogy and Education. Practice, Diversity and Contestation. Springer Nature, Heidelberg, pp 23–43

Schatzki T, Knorr-Cetina K, von Savigny E (eds) (2001) The practice turn in contemporary theory. Routledge, New York

Schensul J, LeCompte M (2013) Essential ethnographic methods. Altamira Press, Plymouth, A mixed methods approach

Schütz A (1967) The phenomenology of the social world. Northwestern University Press, Evanston

Schütz A (1971) The stranger: an essay in social psychology. In: Broderson A (ed) Alfred Schutz: collected papers II: studies in social theory. Martinus Nijhoff, The Hague, pp 91–105

Schütz E (2016a) Kunst und die Wahrheit des Wirklichen – Anmerkungen zur ästhetischen Erziehung. Schütz, E Existenzialkritische Pädagogik. Phänomenologische Schriften zur anthropologischen Praxis von Bildung, Kunst, Sprache und Humanismus. Springer VS, Wiesbaden, In, pp 353–366

Schütz E (2016b) Kunst und Wirklichkeit – Gedanken und Thesen. In: Schütz E, Pädagogik E (eds) Phänomenologische Schriften zur anthropologischen Praxis von Bildung, Kunst, Sprache und Humanismus. Springer VS, Wiesbaden, pp 367–378

Sternagel J (2016) Pathos des Leibs. Phänomenologie ästhetischer Praxis, Diaphanes, Zürich

van Manen M (1990) Researching lived experience. Human science for an action sensitive pedagogy. SUNY Press, New York

van Manen M (2014) Phenomenology of practice. Meaning-giving methods in phenomenological research and writing. Left Coast Press, Walnut Creek

Waldenfels B (1992) Einführung in die Phänomenologie. Fink, München

Waldenfels B (1998) Studien zur Phänomenologie des Fremden. Suhrkamp, Frankfurt a. M

Waldenfels B (2002) Bruchlinien der Erfahrung. In: Phänomenologie, Psychoanalyse, Phänomenotechnik. Suhrkamp, Frankfurt a. M

Waldenfels B (2004) Bodily experience between selfhood and otherness. Phenomenol Cogn Sci 3:235–248

Waldenfels B (2007) Antwortregister. Suhrkamp, Frankfurt a. M

Waldenfels B (2008) Topographie des Fremden. Suhrkamp, Frankfurt a. M

Waldenfels B (2009) Lehren und Lernen im Wirkungsfeld der Aufmerksamkeit. In: Ricken N, Röhr H, Ruhloff J, Schaller K (eds) Umlernen. Festschrift für Käte Meyer-Drawe. Fink, München, pp 23–35

Waldenfels, B (2011) Phenomenology of the Alien. Basic Concepts (trans: Kozin, A, Stähler, T). Northwestern University Press, Evanston, Illinois

Wernet A (2009) Einführung in die Interpretationstechnik der objektiven Hermeneutik. Springer VS, Wiesbaden

Wiesing L (2013) Sehen lassen. Die Praxis des Zeigens, Suhrkamp, Berlin

Wilde D (2015) Wieso ist das kein Spielzeug? Eine phänomenologische Suche nach Antworten auf Dinge des Lernens. In: Brinkmann M, Kubac R, Rödel S (eds) Pädagogische Erfahrung. Theoretische und empirische Perspektiven. Springer, Wiesbaden, pp 249–265