# Fictional Video Cases on Parent-Teacher Conversations: Authenticity in the Eyes of Teachers and Teacher Education Students

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**Abstract:** Video based instructional approaches have become very popular in teacher education. In this context, fictional video cases (FVCs) are a promising format because they can make discrete situations (e.g., parent–teacher conversations) accessible for learners. We critically discuss the concept of authenticity of FVCs with respect to their use for didactic purposes with student and in-service teachers. In an empirical study, we examine the authenticity of a specific pair of contrasting FVCs on teacher-parent communication (showing constructive vs. confrontative communication by the teacher). The FVCs were viewed by teachers and teacher-education students who rated the material regarding its authenticity. The results were that the authenticity of the two video versions was evaluated as "medium", as was the authenticity of the characters. Moreover, the teachers evaluated the video cases as more authentic compared to the teacher education students. Given that existing studies show that the FVCs in focus here were successfully used in instructional contexts, we conclude that it is possible to create meaningful and effective didactic environments featuring FVCs with a medium level of authenticity.

## 1. Introduction

Even though it is not their main task, communicating with parents is an important part of teachers' everyday work [1,2]. Empathetic, constructive and well-structured parent–teacher conversations positively influence the relationship between teachers and parents, not to mention between families and schools in general [3]. Moreover, the quality of teachers' relationships with parents can affect students' achievement, motivation and emotional well-being at school [4–6], particularly now, when schools and parents are responding to increased expectations, economic pressures and time constraints [7]. Still, most teacher education curricula fail to develop novice teachers' knowledge about and competency in communicating with parents [8,9]. Student teachers lack the opportunities to observe, experience and practice interactions with parents before they must interact with parents in their actual work [10]. This is a plausible reason why many teachers consider interacting with parents one of the more difficult and stressful aspects of their everyday work [11].

In this respect, it is interesting that Gaudin and Chaliès [12] entitled a review study 'video viewing in teacher education' but in fact only write about the use of classroom videos. This points towards a

plausible reason why many teachers find it stressful to meet and talk to parents and hence tend to avoid such encounters: it seems that during their teacher education, they have not been prepared for this challenging and important part of their job. Over the last decade, more and more scholars are working to eliminate this blind spot of teacher education by developing training programs dedicated to fostering the competencies of pre- and in-service teachers to interact with parents [13–15]. In these training programs, it is very difficult to include video material from actual parent–teacher conversations. These conversations are high-discretion situations [5] that cannot easily be filmed. Therefore, to support the development of effective instruction regarding parent communication competence, we propose fictional video cases (FVCs) as a promising format [16,17]. Because such videos can provide realistic and vivid examples of parent–teacher conversations, FVCs can meaningfully substitute first-hand experiences in the context of teacher–parent encounters. In addition, they allow for pedagogically promising didactical approaches for teachers and student teachers to work on their competencies in interacting with parents [18]. Compared with authentic video material showing school reality, FVCs even provide enhanced pedagogical possibilities. This is because beyond making discrete practices accessible for learners, they even allow for highlighting multiple, alternative versions of a specific situation. In their potential to bring specific cases into teacher education, FVCs also relate to current, simulation-based pedagogical approaches such as TeachLive$^{TM}$ [19]. However, FVCs are not interactive, i.e., they do not allow learners to slip into the teacher role and directly interact with a simulated parent in an immersive environment. For this reason, we think that direct comparisons between these different approaches are not warranted. In the following, we will hence only draw upon literature from teacher education which focuses upon non-interactive, video-based learning approaches.

In the present paper we focus on an aspect of the quality of FVCs, which, in our view, strongly determines their instructional potential, but which has hitherto not been addressed systematically. In order to unfold the pedagogical potential of FVCs in teacher education, we argue that learners actually need to accept FVCs as authentic [20]; that is, as meaningful substitutes of real parent–teacher conversations. We see this acceptance as a precondition for effective learning with FVCs to occur [21]: if learners perceive examples (in the form of FVCs) representing a specific context as inauthentic (i.e., as insufficiently corresponding to this context), they will not accept these instructional materials as relevant, so learning will be impaired. Based on this, we further assume that the perception of FVCs as more or less authentic also depends on whether a person already has first-hand experiences within the respective context: a teacher who has conducted dozens of conversations with parents surely has a good idea of what such conversations look and sound like. For a teacher education student, however, one who has not yet been present during these encounters, this is not the case. We hence focus on the following question: Do teachers and teacher education students differ systematically in their perception of FVCs as authentic examples of school practice?

Below, we will elaborate on the relevance of this research question from a learning-theoretic angle: we argue that concrete experiences can be powerful starting points for learning activities [22,23]. Under specific circumstances (e.g., in teacher education), it is very difficult to make certain kinds of experiences (such as parent–teacher conversations) first-hand. If so, it makes sense to embed the representations [24] of such experiences in the curriculum and make them the basis for learning processes. Hence, in the current paper, we investigate whether FVCs can simultaneously be authentic representations of practice for both learners with low and high levels of professional experience.

The basis of the present research are a pair of FVCs showing a parent–teacher conversation in two ways: one shows promising, constructive communicative behavior by the teacher (henceforth labelled the *constructive* version), while the other shows suboptimal, confrontative communication by the same teacher (the *confrontative* version). In an empirical study, we investigate viewers' perceptions of authenticity of our FVCs as depending on several variables; that is, the FVC-version (constructive vs. confrontative) and viewers' degree of experience regarding communication with parents (student teachers without vs. teachers with experience in parent encounters). Moreover, we raise the question of whether viewers differentiate in their assessment between the characters in the FVCs (teacher/parent).

Before we describe the present study and its outcomes in more detail, a theoretical reflection of how and under what circumstances FVCs can enrich teacher education—especially regarding parent–teacher encounters—is provided.

## 2. Theoretical Background

### 2.1. FVCs in Teacher Education

As a medium, videos may show either authentic or fictional (scripted) scenes [17]. Authentic videos capturing the interactions in a classroom are widely and successfully used in teacher education and professional development [25–27]. However, because some parts of what truly occurs in schools are difficult to capture on video (e.g., because of discretion issues), FVCs are starting to be introduced in this context. These videos provide an alternative way to make the discrete aspects of school reality accessible for teacher educators, teachers and teacher education students [18].

Regarding associated learning activities and their intended effects in teacher education, the use of FVCs for simulating parent–teacher conversations can be compared with the use of classroom videos. Teacher education researchers have pointed out two main uses of such videos: First, these videos are useful to develop selective attention; that is, to learn "what is worth attending to and what is not worth attending to" [28] (p. 161). This is important because of the complexity inherent in both classroom and parent–teacher situations and because of the need for teachers to make good judgements [29,30]. Second, FVCs are a useful basis for knowledge-based reasoning; this concept points to the social process of paying attention to the specific aspects of a complex practice, describing these perceptions and sharing and discussing these descriptions with others [12].

Unlike authentic classroom videos, however, FVCs are produced with a specific didactic purpose in mind, such as modelling best practices in a parent–teacher consultation [18,31]. A further difference is that in FVCs, actors or real professionals enact a scene based on a more or less detailed script to achieve a specific didactic goal. In medical education, a stronger tradition of using FVCs for teaching communication skills exists [32]. Moreover, compared with authentic material, FVCs are the less problematic format when it comes to ethical considerations: in authentic videos, real persons are visible in their everyday work/school life, which may result in confidentiality issues. In FVCs, it is clear that each of the persons shown in the video is just playing a role, so it is unlikely that such conflicts would emerge [17].

### 2.2. FVCs from a Learning-Theoretical Perspective

Case-based pedagogies are a relevant framework substantiating the use of FVCs in teacher education [33,34]. In an educational context, a case can be described as a particular type of narrative that can be used to explicate and clarify the professional knowledge of teachers [35,36]. Cases are based on real-life circumstances or events and convey multidimensional representations of contexts, participants and the reality of a situation [34]. In teacher education, two main functions of case methods are applied to help (prospective) teachers bridge theory and practice. The first important function of cases in teacher education is related to the idea of modelling [37]. This means to give "ideal" examples of particular practices as a basis for reflection, to promote learning motivation and to contextualize learning processes in relevant situations. Exemplary (best practice) cases may show highly competent teachers in action and thus demonstrate successful practice. They provide teachers and education students with good opportunities to learn by modelling the structure and dynamics of effective pedagogies [34]. This is especially relevant in initial skill acquisition [38]. The second important function is to show erroneous practices or dilemmas and foster problem-based learning [37,39]. These cases can serve as a basis for students to analyze problems and to reflect upon possible solutions or strategies to avoid problems [34,40]. Combining the ideas of modelling and problem-based learning with FVCs allows for the development of interesting didactical scenarios where different scenes are compared, reflected upon and discussed [41]. As Namy and Gentner [42] note,

learning through reflection and comparison is effective for developing flexible, transferable knowledge. It is a general learning process that can promote deep relational learning and the development of theory-level explanations [43]. In particular, the process of aligning two contrasting representations can result in the extraction of a common higher-order cognitive structure that is not readily evident within either item alone [42].

*2.3. Research Evidence*

Educational researchers have generated evidence showing the usefulness of FVCs for stimulating learning processes in teacher education [44,45]. Muñiz Rodríguez et al. [46] video-recorded staged classroom situations showing teacher feedback strategies in different instructional formats, such as group work or lecture-style teaching. They used these vignettes in the context of an intervention dedicated to improve mathematics' student teachers feedback competence and could demonstrate positive learning effects. In two older studies, Moreno and Valdez [37], as well as Moreno and Ortegano-Layne [36] used FVCs showcasing the strategies for teaching the addition of two-digit numbers to primary school children. Moreno and Valdez [37] used an experimental approach to show that students learned promising teaching principles better with video-based than with text-based examples. In addition, students in the video-condition showed higher information retention four weeks after the treatment. Moreno and Ortegano-Layne [47] used the same FVCs and demonstrated that teacher education students showed better learning-oriented attitudes and better application of learned teaching principles when they learned with FVCs or animations (compared with text).

Two further studies [48,49] describe training programs aimed at fostering student teachers' competence to communicate with parents which feature the very FVCs investigated in the present study. In both studies, the FVCs were embedded in e-learning platforms. The participating students viewed scenes from the FVCs and were prompted to reflect on the scenes based on guiding questions. Using experimental designs with a control group, both studies report positive learning outcomes for the trainees' communication competence measured through simulated parent–teacher conversations.

Several authors of pertinent articles have mentioned the authenticity of FVCs as a critical feature that determines their usefulness and educational value [17,45]. This concept is the focus of the present analysis and will be further described below.

*2.4. Why the Authenticity of FVCs Matters*

We argue that the didactic potential of FVCs depends on their quality and, more specifically, the degree of authenticity in the eyes of the viewers. In the following, we will clarify how we define and operationalize this concept, providing a learning-theoretic rationale for its relevance in the context of learning using FVCs.

2.4.1. Authenticity Defined

In the context of the present study, authenticity is basically understood as the degree of correspondence between how parent–teacher conversations are shown in FVCs and how they occur in schools [20]. This means that the characters shown in FVCs should look, talk and act like real teachers, parents and pupils; they should converse (primarily) about school-related issues in a way that realistically displays the rules, regulations and practices prevalent in schools. Moreover, because such conversations typically take place inside schools [14], the scene should be situated in what could be a classroom or a school conference room.

It could be argued that this is a problematic conceptualization because each parent–teacher conversation is different depending (of course) on the participants, the specific school it takes place in and the problem that is discussed. In this respect, a look at qualitative studies from different national contexts on how teachers and parents communicate with each other is interesting: evidence from this strand of research has described distinctive communicative practices and strategies teachers and parents show in their mutual conversations, for example, regarding the way they verbalize

praise [50,51] or criticism [52] about the pupil they speak of. This line of research has shown that it makes sense to think of typical or characteristic elements of parent–teacher conversations that can be depicted in FVCs in a more or less authentic way. Moreover, many researchers have described deficits in the ways teachers talk to parents in schools and have pointed out that these encounters are characterized by "dissatisfaction on both sides" [53] (p. 102). From this perspective, it could be argued that it is even counter-productive to show authentic communication in FVCs, simply because it makes no sense to reproduce poor communication by teachers who are not trained in this practice in video material intended to foster communication competence. On the other hand, it is uncontested that there are teachers who actually communicate with parents in a very competent way [11].

### 2.4.2. Authenticity and Learning

We argue that learners need to accept FVCs as authentic; that is, as being meaningful substitutes of real parent–teacher conversations, as a precondition for learning with FVCs to take place and to be effective. In the following, we substantiate this claim by drawing on the theory of experiential learning [22] as theoretical framework for our study. In brief, this theory describes the learning activities triggered by concrete experiences, such as a critical reflection of experiences, sense making based on abstract, theory-based categories or trying out new courses of action. Experiences that trigger learning activities are incidents that cause "disturbance or uncertainty" [54] (p. 30). In this sense, experiences could also be characterized as critical or challenging situations where individuals cannot rely on established action routines anymore and are urged to develop new ideas and action strategies.

In certain environments, experiences (in the above-described sense) are purposefully simulated to trigger learning processes; this is done because it would be irresponsible to allow learners to experience such situations first-hand. A good example are flight simulators: these allow trainee pilots to very realistically experience critical situations when piloting an aircraft, yet without the dangerous consequences connected to such situations in real life. The risks when talking to parents may not be as high as when flying a plane; yet still, what makes the two situations similar is that they are quite difficult to recreate for the purposes of making pertinent experiences and learning from them, as proposed by Kolb's [22] theory. In this sense, we characterize FVCs as substitutes for real parent–teacher conversations, which can potentially be a useful basis and starting point for learning processes. However, the question is whether learners accept FVCs as valid representations of these situations. To show why we assume that this acceptance matters, we revisit the above example: if a trainee pilot thinks that a flight simulator provides an unrealistic flying experience, the learning processes that should be occurring in the simulation will be negatively affected. If, however, the pilot feels that the simulation is an authentic recreation of a real airplane, effective learning is more likely. A question connected to this notion is which factors influence whether an individual perceives a simulation-based learning environment as authentic or not. We argue that the degree of pertinent professional experience is a key variable: to stick with the flight simulator example, for a very young trainee who rarely has had the chance to sit in a real cockpit, any simulator might feel realistic, even if the simulation deviates from reality in several ways. An experienced pilot, however, might be more critical regarding the authenticity of a simulated experience simply because of his or her familiarity with such environments. This is why the present study focuses on the influence of professional experience on the perception of the authenticity of FVCs (which we see as an essential criterion regarding their usefulness and didactic potential) [20,55].

We argue that for FVCs to meaningfully represent a professional context (e.g., a school), a sufficient degree of correspondence to how this context looks and works in the real world is important. Authentic materials can 'provide real world relevance and personal meaning to the learner' [56] (p. 190). This means that it is necessary for viewers to accept the (fictional) practice shown as a valid representation of the actual practice (in schools, in our case) [10]. If this is the case, we assume learners will be more likely to engage in intensive reflection or discussion of a particular case [10,21]. Moreover, what is seen as an "authentic" practice may also vary depending on the specific background,

experiences and attitudes of the viewer. In our empirical study, we investigate whether viewers have a general, initial impression of whether a fictional scene is a plausible and convincing example of everyday practice in a specific professional domain [21,57].

The goal of our study is to investigate the differences in the perceptions of the authenticity of two contrasting versions of a FVC viewed by in-service and preservice teachers. Version one shows confrontative communication, and version two shows constructive communication. We pose the following research questions:

- RQ 1. Are the confrontative and the constructive version of the video case perceived as differently authentic?
- RQ 2: Are the characters portrayed in the two versions perceived as differently authentic?
- RQ 3: Do teachers and teacher education students perceive the authenticity of the two versions differently?
- RQ 4: Do viewers' perceptions of authenticity depend on the video versions (confrontative vs. constructive)?

## 3. Materials and Methods

### 3.1. Design and Materials

We examine the authenticity of FVCs as perceived by teachers and teacher education students using a descriptive and correlational research design and a cross-sectional questionnaire study. The two contrastive FVCs were entitled *"So geht's nicht weiter!"* (German for *"It can't go on that way!"*) [58] and show a parent–teacher conversation in which the father of a tenth grader complains to the teacher about his child's bad grade on a recent physics test (see Figure 1 for screenshots).



**Figure 1.** Film stills from the FVC "So geht's nicht weiter!" ***Note.*** FVC = Fictional Video Cases.

The two videos show two different versions of the same conversation, with the difference being the teacher showing constructive/confrontative behavior in version 1/2 of the FVCs. The common starting point of both versions is a father showing rather aggressive behavior who blames his son's physics teacher for a bad grade. The father claims that a recent test was far too difficult and should be rewritten. In the confrontative version (V1) of the video case, the teacher shows adverse communicative behavior: the teacher does not even try to thoroughly understand the father's complaint. Instead, the teacher expresses his irritation about the father's accusations and reacts in a rather aggressive and confrontational way, quickly bringing up the question of who is to blame for the bad grade. After blaming each other for a while without engaging in productive, solution-oriented dialogue, the conversation ends with the father declaring that he will contact his lawyer about the issue and consider legal action. The constructive version (V2) of the same scene shows the teacher (who is actually played by the same actor as in V1) reacting in a constructive and empathetic way to the father's complaint. The teacher listens attentively to what the father has to say, and empathizes with the father's concerns about his child. After looking at the test together, they discuss the child's results, his behavior at school and then jointly reflect on reasons and possible remedies for the situation. In the end, the father seems satisfied with the conversation.

*3.2. Production of FVCs*

In the development and production of these FVCs, we adapted the multistep procedure recently proposed by Piwowar et al. [17] and Dieker et al. [59] for developing FVCs on parent–teacher communication in contrasting versions. This means we essentially followed the originally proposed sequence of general phases (selection of evidence-based practices, vignette script development and video production), but made two substantial modifications: First, our initial literature review on the actual practices and problems related to counselling at school and teacher–parent communication did not yield specific enough information to allow for developing a relevant script. For this reason, we decided to conduct a cross-sectional questionnaire study. This method is appropriate for gathering targeted information from experts on topics for which little knowledge exists [60]. We asked 21 secondary school teachers to discuss challenging situations they had experienced when encountering parents, to describe what made these encounters difficult and to state what mistakes they had made in these situations [48]. Second, we found it very difficult to write dialogue capturing the tone of a naturally occurring parent–teacher conversation. Hence, we shot an improvised version of the scene using suitable actors to come up with an initial version of the script. For this purpose, we hired a professional actor to play the parent. For the teacher, we hired an experienced teacher who had extensive experience as a school counsellor. Both actors were handed a general description of the situation and were asked to play the scene in an improvised way based on the outline. Because the teacher had significant experience in talking to and counselling parents, we felt confident that our video had captured the tone and feeling of an actual parent–teacher conversation as led by a competent teacher. By transcribing this video and based on our didactic goals and theoretical model, we came up with a first draft of our script and a basis for its refinement. Starting from this initial version, scripts for the constructive and confrontative versions of the final video cases were developed.

*3.3. Sample*

The study participants were recruited via invitations in seminars in and outside university and in teacher professional development courses. With the invitation, the potential participants received the URL of an online survey randomly featuring one of the two versions of the FVC. After watching the video, all respondents answered the same set of questionnaire items.

The study participants comprised teachers ($n = 35$) and teacher education students ($n = 113$), with some ($n = 19$) missing data. Both the seminars and the teacher professional development courses were primarily attended by STEM teachers, 81.7% of the participants in our sample were men, and 18.3% were women, with ages ranging from 20 to 65 ($M = 29.74$, $SD = 11.729$). Regarding the different video versions, 44.9% of the participants had been randomly assigned to view the constructive version, and 55.1% had been assigned to view the confrontative version.

*3.4. Instruments*

The goal of our study was to draw conclusions about the usefulness of FVCs for two populations; that is, teachers and teacher education students. We decided that a cross-sectional questionnaire study was suitable for this purpose because this design would allow us to question larger samples from the underlying populations in a standardized way and shed light on systematic differences regarding the perceptions of authenticity of the FVC versions. Therefore, an online questionnaire was used to measure the respondents' perceptions about the authenticity of the parent–teacher conversations. Three subscales were used, focusing on the overall authenticity of the video cases, authenticity of the teacher, and authenticity of the parent. All items could be answered using a 5-point Likert scale, with answers ranging from (1) absolutely disagree to (5) absolutely agree. The items were developed for use in the present study. They underwent several rounds of peer-review by experts with a background in educational research and teacher education. To ensure scale quality, the items were pretested in a pilot study with a sample of 32 university students who watched one of the FVCs in focus of the study.

Items that did not contribute to high scale reliability were removed. In the current study, reliability scores (Cronbach's alpha) of the resulting scales were high for all three authenticity subscales, ranging from 0.83 to 0.90. Table 1 gives an overview of reliability values, examples of items and number of items for each subscale

**Table 1.** Overview of the measures with sample items.

| Scales | Sample Items (Translated from German) | Number of Items | $\alpha$ |
|--------|---------------------------------------|-----------------|----------|
| Aut_O | The teacher–parent conversation shown in the video seems authentic to me | 5 | 0.87 |
| Aut_T | The teacher in the video behaves in a credible way | 3 | 0.90 |
| Aut_ P | The father in the video seemed authentic to me | 3 | 0.83 |

*Note.* Aut_O—Overall authenticity; Aut_T—Teacher authenticity; Aut_P—Parent authenticity.

### 3.5. Data Analyses

A two-way multivariate analysis of variance (MANOVA) was conducted with viewers (teachers and teacher education students) and video versions (constructive and confrontative) as the independent variables (IVs). Teacher and parent authenticity were the dependent variables (DVs). We also investigated interaction effects among IVs on DVs. Pillai's trace was used to interpret the results of multivariate tests because of the unequal size of the groups in the current study. When a significant effect was found in the MANOVA, we used follow-up univariate analysis of variance (ANOVA) to determine the affected DVs. When a significantly affected DV was obtained using an ANOVA, we examined the pairwise comparisons using a Bonferroni adjustment to check whether there were significant mean differences between IVs.

Prior to conducting the MANOVA, we tested the assumption that the DVs would be moderately correlated with each other [61]. Pearson correlations revealed that all the DVs were positively and significantly correlated in a moderate to strong way, ranging from $r = 0.64$ to $r = 0.73$, $p < 0.01$, suggesting the appropriateness of conducting a MANOVA [62]. Next, we used a Box's M test to check the assumption of equal covariance matrices across all levels of IVs. The results showed a nonsignificant association, with a Box's *M* value of 18.90 and a *p* value of 0.47, indicating nonsignificant differences between the covariance matrices as a precondition for performing a MANOVA [62]. Finally, a Levene's test of equality of error variances was employed to examine the assumption of the MANOVA and ANOVA that the variances of each variable are equal across groups [62]. The results showed that two DVs – overall authenticity ($p < 0.05$) and parent authenticity ($p < 0.05$) – failed to support the assumption, while teacher authenticity ($p > 0.05$) met the assumption. Given that the overall authenticity of the DVs and parent authenticity both had a positively skewed distribution, a logarithmic transformation (base 10), which is commonly used to reduce positive skew and normalize data, was applied [63]. The results revealed nonsignificant p values ($p > 0.05$) for all DVs, confirming the differences between variances in groups for the purposes of a MANOVA and ANOVA.

## 4. Results

### 4.1. Descriptive Statistics

Overall, as could be seen from Table 2, the authenticity of the two versions of the FVC was perceived as "medium". The characters portrayed in the two versions (teacher and parent) were also rated as having medium authenticity. The teachers perceived both versions of the video case to be of higher authenticity compared with the teacher education students. Table 2 presents the descriptive statistics (means and standard deviations) for all measurements, here considering the different video versions and viewers.

**Table 2.** Authenticity means and standard deviations for video versions and viewers.

| Perception of Authenticity | Confrontative Version | Constructive Version | Teachers | Teacher Students |
|---|---|---|---|---|
| | *M/SD* | *M/SD* | *M/SD* | *M/SD* |
| Overall | 2.28/0.76 | 2.60/1.02 | 2.94/1.07 | 2.27/0.78 |
| Teacher | 2.37/0.98 | 2.42/1.19 | 2.96/1.17 | 2.22/0.99 |
| Parent | 2.43/0.95 | 2.48/1.04 | 3.16/1.16 | 2.24/0.83 |

### 4.2. MANOVA Main Effects

As seen in Table 3, Pillai's trace yielded significant multivariate effects for the viewers and video versions. However, the interaction effect of the viewers and video versions on the DVs (authenticity scale) was not statistically significant. For significant multivariate effects, further analyses (univariate ANOVAs and pairwise comparisons) were undertaken to determine the univariate main effects and mean differences between the groups of viewers and video versions. More specifically, further analyses were conducted to investigate the effects of viewers and video versions on the perceived authenticity of the videos.

### 4.3. Perception of Overall Authenticity (RQ 1)

RQ 1 investigates whether the two video versions (confrontative vs. constructive) would be perceived as differently authentic. To answer this question, we used overall authenticity as the DV. Given the significant multivariate effects of video versions in Table 3, the univariate main effects were examined using an ANOVA. However, nonsignificant univariate main effects of the video versions were found for overall authenticity, $F(1,143) = 0.15$, $p > 0.05$. Pairwise comparisons also revealed nonsignificant differences between the two versions in terms of overall authenticity, $p > 0.05$. We conclude that the constructive and the confrontative versions of the video cases were not rated as differently authentic.

**Table 3.** MANOVA with viewers (t/ted) and video versions as the independent variables.

| Effect | Pillai's Trace | F | Hypothesis df | Error df | p * | Partial Eta Squared | Observed Power ** |
|---|---|---|---|---|---|---|---|
| Viewers | 0.12 | 6.36 | 3 | 141 | 0.00 | 0.12 | 0.96 |
| Video versions | 0.06 | 2.96 | 3 | 141 | 0.03 | 0.06 | 0.09 |
| Viewers × video versions | 0.02 | 0.97 | 3 | 141 | 0.41 | 0.02 | 0.26 |

*Note.* * $p < 0.05$; ** computed using alpha = 0.05; t = teachers; ted = teacher education students

### 4.4. Perception of the Characters' Authenticity (RQ 2)

RQ2 examines whether the characters portrayed (teacher and parent) in the two versions are rated as differently authentic. Although there were significant multivariate effects for the video versions, a follow-up univariate ANOVA showed no significant main effects between the different video versions on teacher authenticity, $F (1,143) = 0.13$, $p > 0.05$, and parent authenticity, $F (1,143) = 3.28$, $p > 0.05$. Pairwise comparisons also revealed nonsignificant differences, $p > 0.05$. Therefore, the results did not support the assumption that the characters' authenticity in the two video versions was perceived differently.

### 4.5. Teachers' and Teacher Education Students' Perceptions of Authenticity (RQ 3)

RQ 3 investigates whether teachers and teacher education students perceived the two videos differently in terms of their authenticity. Given the significant multivariate results in Table 3, we concluded that there were significant multivariate effects for the viewers (teachers and teacher education students) regarding the authenticity of the videos. In addition, the univariate ANOVA results in Table 4

revealed significant univariate main effects for the teachers and teacher education students regarding the perception of overall authenticity, teacher authenticity and parent authenticity.

The results of the pairwise comparisons in Table 5 confirmed there were significant differences between the teachers and teacher education students regarding all three measures of authenticity. Furthermore, according to the mean differences (I-J), the teachers had a statistically significant better perception of all three subscales of authenticity than the teacher education students did. Hence, the significant statistical results supported our hypothesis that different viewers (teachers and teacher students) would perceive the two videos as differently authentic. To be more specific, teachers had a higher overall authenticity rating of the videos and perceived the teachers and parents in the videos as more authentic than teacher students.

**Table 4.** ANOVA results of viewers (t/ted) as an independent variable.

| IV | DV | df | $\eta p2$ | F | p * |
|---|---|---|---|---|---|
| | Aut_O | 1 | 0.07 | 10.24 | 0.00 |
| Viewers | Aut_T | 1 | 0.08 | 12.40 | 0.00 |
| | Aut_P | 1 | 0.11 | 17.63 | 0.00 |

*Note.* * $p < 0.05$; t = teachers; ted = teacher education students;.

**Table 5.** Pairwise comparisons of the mean differences between teachers and teacher students on the dependent variables.

| DV | (I) t/ted | (J) t/ted | Mean Difference (I-J) | Std. Error | p * |
|---|---|---|---|---|---|
| Aut_O | ted | t | −0.10 | 0.03 | 0.00 |
| | t | ted | 0.10 | 0.03 | 0.00 |
| Aut_T | ted | t | −0.73 | 0.21 | 0.00 |
| | t | ted | 0.73 | 0.21 | 0.00 |
| Aut_P | ted | t | −0.14 | 0.03 | 0.00 |
| | t | ted | 0.14 | 0.03 | 0.00 |

*Note.* t = teachers; ted = teacher education students; * $p < 0.05$.

*4.6. Interaction between Video Versions and Viewers on the Authenticity Scale (RQ 4)*

RQ4 focuses on whether viewers (teachers and teacher education students) and video versions (constructive vs. confrontative) as combined factors affected the DVs (overall, teacher and parent authenticity). The profile plots in the MANOVA showed an ordinal interaction between viewers and video versions for overall authenticity, here with two nonparallel lines: a disordinal interaction for teacher authenticity with two crossed lines and no interaction for parent authenticity with two parallel lines [64]. The interaction effect between the viewers and video versions on DVs was not statistically significant, as shown in Table 3.

**5. Discussion**

In this study, we examined how different viewers (teachers and teacher education students) perceived the authenticity of FVCs, the characters therein and the different versions of these FVCs. Overall, the results showed that the authenticity of the two video versions was evaluated as medium, as was the authenticity of the characters. Concerning the two video versions, the empirical data revealed only minor differences between the participants' perceptions of the constructive and confrontative version in terms of overall authenticity, teacher authenticity and parent authenticity. In terms of viewers, our study further showed that teachers evaluated the FVCs as more authentic than teacher education students did. In the following, these results will be discussed regarding their relevance for teacher education and as basis for further research on FVCs in instructional settings.

### 5.1. FVC Development and Authenticity

In developing our FVCs, we made two decisions that might be a model for similar projects. First, we conducted a qualitative study using the Delphi method [60] as a systematic way to obtain information from teachers about their experiences with parents [14]. The results of this study informed the development and content of our FVCs. Second, we filmed an improvised initial version of the video case, the transcript of which became the first draft of the final script.

In terms of viewers, our results showed that teachers evaluated video cases as more authentic than teacher education students did. From the viewpoint of our theoretical argument based on the theory of learning from experience [22], this outcome is rather surprising: because teachers have experienced real parent–teacher communication situations, we would have expected them to be more critical than the teacher education students in their evaluation of our FVCs' authenticity. One possible reason is that because of their experience, teachers may be more aware of each teacher–parent encounter being different. This could lead to the spectrum of what they regard as 'normal' in parent–teacher meetings being wider—with our FVCs falling well into this range. We argue that teachers' positive evaluation of our FVCs points towards their usefulness as instructional materials for teacher professional development. Teacher education students' lower perceptions of authenticity are surprising given their lack of experience with such situations. However, as existing studies [48,49] have demonstrated effective learning with the FVCs in focus here, it can be concluded that the level of authenticity perceived by the student teachers can be judged sufficient.

Further, this result points out the problem that there are few learning materials (e.g., scripted/fictional videos based on real situations) allowing students to gain insights into parent–teacher conferences [10]. By systematically researching the acceptance of two versions of a parent–teacher conversation video, the current study also seeks to encourage teacher educators to adopt similar approaches and to promote teacher education students' competencies in parent–teacher communication. The two contrasting FVC versions can be used to stimulate discussion with students about how they would react and how they would solve problems in communication with parents. Based on this, theoretical models of communication can be discussed, and students can work on their own communication skills relating to the situation in the FVCs; they can compare themselves to the characters in the constructive and confrontative versions and find their own way to deal with these situations. A possible didactic approach would be to engage in role-playing with learners acting as the teacher and/or the parent shown in the FVCs [41,43].

Regarding the FVCs in focus here, we seek to address one further point: We purposefully labelled the two versions of the FVC *confrontative* vs. *constructive* (and not, e.g., negative vs. positive). With this decision, we sought to use labels that would primarily describe the interaction in the videos, not immediately judge its quality or appropriateness. Our main goal was to create video material that would be useful in encouraging critical reflection and discussion about teacher–parent meetings. This implies that any viewer might see positive aspects in the confrontative FVC and negative aspects in the constructive FVC. We explicitly encourage teacher educators to welcome and acknowledge such views and to encourage (preservice) teachers to purposefully strive toward developing their own personal way of interacting with parents (instead of following simplistic if-then rules).

Regarding the interactions between viewers and video versions vis-à-vis the authenticity of the video cases, our results revealed an interaction effect of viewers and video versions regarding the perceptions of teacher authenticity. However, there were no interaction effects for the viewers and video versions on overall and parent authenticity, meaning that the viewers and video versions as combined factors did not affect the perceived authenticity of the two videos. This was unexpected because the two versions were designed to show distinct parent–teacher communication scenes, especially with the teacher showing contrasting communicative behaviors (constructive vs. confrontative). Moreover, previous results have demonstrated that there are significant differences between different viewers regarding their perception of authenticity. One possible explanation could be that because of the purpose of developing two contrasting video cases, the teacher's behavior in the confrontative version

was exaggerated, which might be considered an unrealistic example and hence have affected the viewers' perceptions of authenticity. This would account for the nonsignificant interaction effects.

### 5.2. Implications for Teacher Education

As mentioned, the FVCs used in the present research have already been used in two existing studies [48,49]. Using experimental designs with intervention and control groups, these studies report positive learning outcomes on the level of communication competence as measured by the simulated parent–teacher conversations. It can be concluded that it is possible to create meaningful and effective didactic environments featuring FVCs that have a medium level of authenticity. FVCs provide a way to bring otherwise hardly accessible situations of parent–teacher communication into teacher education in a vivid and concrete way. Despite this being a promising perspective, concrete pedagogies that tap into the potential of FVCs are still scarce. However, some evidence exists for the effectiveness of integrating parent–teacher FVCs into a virtual learning environment [48]. This scenario allows for illustrating basic conversational techniques through FVCs. From a learning-theoretical point of view, this idea could be described as learning through modelling [2] or learning by observation [65]. As was foreshadowed, FVCs can also be a basis for discussion and critical reflection upon how to communicate with parents in promising (or in suboptimal) ways. Using FVCs in such a way relates to the promising instructional strategies of teacher education that link teachers' practical work with theoretical concepts describing this practice [66], which foster the development of a shared language to describe teacher practices [67] or support the construction of applicable professional knowledge through problem-based learning [68]. However, future studies should further investigate the degree to which the perception of FVCs depends on the circumstances under which they are viewed.

### 5.3. Limitations and Future Research

Several limitations of the present study should be pointed out. We focused on the authenticity of FVCs as a critical aspect regarding the use of these videos in instructional contexts. However, as is apparent from the study by Piwowar et al. [17], other researchers have focused on different attributes of FVCs, so future studies should pursue an integrative approach. Furthermore, the unequal sample sizes in our study might have limited the significance of the perceptions of the video cases. Because the sample size of the teachers was quite small, the results may not be generalizable and should be confirmed in future studies. Moreover, another relevant group whose perceptions of the FVCs should be investigated in future research are teacher educators. Because the FVCs were designed to be used in teacher education, including the perspectives of these is worthwhile, for example, with respect to what the most promising didactic concepts involving such videos are. Although we used the Delphi method in the video development process to collect relevant information about teachers' experiences with parent–teacher communication, there is still a lack of empirical results regarding parents' experiences and perceptions of these situations. Therefore, future research should also consider the opinions and experiences of parents regarding parent–teacher consultations [69]. Moreover, the participants' perceptions of the video cases were gathered via questionnaires, but without conducting interviews; hence, we cannot know how the teachers and teacher education students formed their perceptions of the two video cases (e.g., whether they used theoretical knowledge or compared their own experiences when assessing the FVCs). In addition, a qualitative approach would have been more useful to understand which aspects of the scenes were seen as more or less authentic. Therefore, it would be interesting for future research to further explore participants' perceptions of and attitudes towards the video cases by employing qualitative methods, for example, structured interviews. A further point is that we focused only on two specific video cases in the current study. Because FVCs are a rather new development in teacher education and empirical literature on them is rare, it is crucial that more (contrastive) FVCs on parent–teacher communication or other pedagogical scenarios be developed and empirical evidence on such materials is collected.

## 6. Conclusions

The development and use of FVCs in teacher education is an emerging strand of research [17]. We argue that the present study adds several valuable aspects. In summary, it explains why FVC-authenticity in the eyes of learners is a relevant topic in teacher education (research), provides sound theorization to substantiate this point and delivers relevant empirical evidence. By producing two contrasting FVCs and providing insights into our video development process, the present study enriches the growing body of literature on FVCs in teacher education: Drawing upon the study by Piwowar et al. [17], our study confirms the relevance of their proposed sequence of steps for developing didactically useful FVCs. Moreover, it contributes to differentiating this approach and shows how to adopt it to different kinds of professional practice to be shown in FVCs. Moreover, it draws upon conceptions of authenticity which have been established in theory-focused contributions [55,57] and develops these further to establish a theoretical basis for empirical research. Moreover, the current study extends current research on FVCs in teacher education [17,37,46,47] by suggesting that this approach is also relevant for parent–teacher communication. To prepare teachers for high-discretion situations such as these, FVCs depicting real situations based on predeveloped scripts are particularly valuable. In addition to developing the FVCs, our study also provides empirical data that evaluates the authenticity of FVCs. The results indicate that our video cases were considered as having medium authenticity, which met our assumptions. However, there are still many aspects concerning FVCs (e.g., their usefulness for learning) that were not researched here. We strongly encourage researchers to further study FVCs in teacher education.

**Key points:**

- Fictional video cases are a promising format in teacher education because they can open up otherwise hidden aspects of school reality (like parent–teacher conversations) for reflection and learning and can be developed to showcase contrasting versions of a scene.
- Investigating teachers' and teacher students' perceptions of a specific pair of fictional video cases showing confrontative vs. constructive communication, we found medium authenticity of the video cases and the characters shown therein.
- Regarding the two versions of the fictional video case, the constructive version had higher ratings regarding its authenticity, but the results were not statistically significant.
- Teachers evaluated the video cases as more authentic compared with teacher education students.

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