Students' in-class impression management: Comparing models for measuring student strategies of self-presentation

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This paper addresses an issue that has largely been neglected in educational research so far: students' impression management. Impression management is defined as an individual's active effort to present the self in a certain, usually positive way. Owing to a lack of empirical studies on students' impression management at class, we primarily pursued the basic aim of designing an instrument for analyzing deliberate student tactics of self-presentation. Its development was based on work on school-specific coping strategies. Construct validity and criterion validity were tested in a sample consisting of 201 Austrian high school students. The results indicated that a correlative five-dimensional factor structure fit the data best. Furthermore, students with higher scores on the presented and appearing self also scored higher on most dimensions of the Impression Management scale than their peers who cared less about their teacher's perception. These findings raise the question of what types of impression management can be deemed functional with respect to academic success.

KEYWORDS

impression management, self-presentation, model comparison, appearing self, presented self

1. Introduction

In recent years, impression management has gained attention in numerous fields. Research on impression management can be found in personality assessment (social personality assessment, Helmes et al., 2014), in the context of job application processes (Kristof-Brown et al., 2002; Levashina and Campion, 2006, 2007; Roulin and Bourdage, 2017), self-presentation in social media (Rui and Stefanone, 2013; Picone, 2015; Popescu, 2019), participation in Massive Open Online Courses (MOOCs, Becker-Lindenthal, 2015), or with addictive behaviors of adolescents (Callaghan and Doyle, 2001) as well as in organizational research (Gardner and Cleavenger, 1998; Bolino and Turnley, 1999; Bolino et al., 2014; Rehman Khan and Javed, 2018). For instance, Abraham and Hansson (1995) found that impression management is one important factor in successful aging at work. Rehman Khan and Javed (2018) emphasize that people are involved in impression management "when they are evaluated by someone who controls the valued outcome" (ibid., p. 3). Therefore, impression management is also relevant in the school context. Thus, schools are not only about education,

but also about socialization, qualification, and allocation (Fend, 2008). In particular, its selection function has gained attention in recent years, as the duration of compulsory schooling has been extended, but at the same time it has been largely degraded to a preliminary stage for preparing the transition to further educational institutions (Reichenbach, 2013). For students, this means that the success they achieve while in school is critical with respect to their future academic or professional career. Against this background, it comes as no surprise that the quality of diagnostics in educational settings has become a major topic of research (Ohle and McElvany, 2015). Evaluations of achievements of individual students form a central part of the responsibilities of the teaching profession. These evaluations provide a basis for the regulation of educational opportunities and career prospects (Lüders, 2001). Despite this pivotal function of social selection and its biographical significance, evaluations are often characterized by "a considerable extent of scope" (Lüders, 2001, p. 218, translation by the authors) because they are rarely based on strictly objective measurement criteria. Recent studies about the quality of pedagogical diagnostics have shown that teachers' judgement is not as accurate as one might hope, and that students' actual performance (standardized tests) and teachers' evaluation differ hugely (Ohle and McElvany, 2015; Pielmeier et al., 2018). That means, educational researchers are well aware of this potential bias (Heinze, 1980; Eder and Bergmann, 2004) as the following quote shows:

> In case of school failure, teachers' feedback has proven to be less negative towards those pupils who make an effort rather than towards those who did not put enough effort to succeed (the "lazy" students!), even when performances were equivalent … (Matteucci, 2014, p. 544).

If there is scope for decisions and weighting, there are consequently opportunities for social influencing. With special regard to evaluations that are decisive in terms of educational careers, Neuenschwander (2010) emphasizes that not only academic achievement but also engagement in class and the students' behavior influence their teachers' decisions about the transition to continuing education, e.g., secondary school. Consequently, for students it is important they also leave a good impression, that the teacher thinks of them as motivated, engaged and interested.

Although impression management is also considered important in education, to date, there has been little systematic research on students' impression management in the classroom and their attempts to portray themselves in a certain (positive) light. As Juvonen and Murdock (1993) pointed out 30 years ago there has been more research on self-presentation strategies given a negative event than during neutral or positive events. More recent research on impression management, for example, has focused on self-handicapping behavior as one self-presentation strategy to control/manage the impression one wants to leave. Literature on whether and what self-presentation strategies students use in order to make a good impression is scarce. Against this background of missing research, our paper addresses the issue of impression management that is the deliberate attempts of students to influence their teachers' perception and judgments. Because instruments for measuring different aspects of student impression management in the classroom have been lacking so far,

the chief aim of our study consists in devising such an instrument. In view of these primarily methodological objectives, our paper focuses on the validation of the newly developed instrument.

2. Impression management: Presentation of the self

Depending on the research tradition and paradigm, definitions and conceptualizations of impression management differs hugely. While the psychoanalytic tradition clearly understands impression management as conscious lying and deception, organizational research attributes both a conscious and an unconscious dimension to impression management. In addition, a distinction is made between advantageous and disadvantageous self-presentation, verbal and nonverbal tactics, as well as honest and deceptive impression management (Fapohunda, 2017). From a social psychological perspective, impression management is understood as the active and conscious effort of an individual to present the self in a certain (usually positive) light and to leave a certain impression on the public with a specific goal in mind (Baumeister, 1999; Matteucci, 2014; Parhankangas and Ehrlich, 2014). In this tradition, Goffman (1971) understood the world as a social stage on which we present ourselves in accordance with particular rules, in particular contexts with particular intentions. Forgas and Jones (1985) too emphasized that a large part of interpersonal communication is aimed at achieving a particular purpose, often simply the purpose of making a positive impression on one's interlocutor. Thus, many messages are characterized by strategic thinking, planning, and evaluation. In this paper, impression management is understood as the selective presentation or strategic disclosure of information that is applied in order to enter into smooth interpersonal relationships or to achieve important (social) goals, even if this involves negative or deceptive self-presentation (Picone, 2015). Leary (1996, p. 4) also emphasizes:

> Although some self-presentations are exaggerations and others are downright lies, most of the time the impression people try to make on others are not deceptive. We are all multifaceted individuals, and in any given situation, we could convey many different impressions of ourselves, all of which are true. Rather than lying, people typically select the images they want of others to form from their repertoire of true self-images. This selection is often tactical in the sense that it is based on their goals in the situation and on their assumptions about which impressions will best achieve those goals.

As Strauß (2005, p. 69, translation by the authors) pointed out, "the presentation of the self is an immanent part of each social situation: without self-presentation, there can be no interaction, and without interaction, there can be no self." If this presentation is to be successful, the individual needs a clear idea of the expectations of the "audience" as well as sensitivity to what is deemed appropriate in a specific social situation (Forgas and Jones, 1985; Forgas, 1999).

This is also important in the context of school in general and especially in the context of classroom instruction. As Juvonen and Murdock (1993) showed, 8th grade students are also aware of this, as they assume that teachers like successful students more than unsuccessful and students who try hard more than those who do not try.

2.1. Impression management in the classroom

Students can usually be assumed to know how to leave a favorable impression. Woods (1990) noted that students often hide their interests behind a kind of mask. They avail themselves of various strategies or tactics so as to conform to the expectations of their teachers and to attract attention in a positive way. Against this background, Niederbacher and Zimmermann (2011) drew the following conclusion with respect to social interactions in the classroom:

> At school, teachers and students interact. Their actions are tied to societal expectations and roles. … If they fulfill these expectations, they will receive recognition and rewards; if they fail to fulfill these expectations, they will be met with disapproval and receive punishment or even sanctions. … The better students adapt themselves to the teachers' expectations and presumptions in class, and the better they succeed in disguising themselves in the sense of an integration of both curricula [i.e., the formal and the hidden curriculum], the greater the likelihood of a successful educational career. (Niederbacher and Zimmermann, 2011, p. 101, p. 109, translation by the authors)

This sensitivity to social situations and to the expectations that are associated with them is not equally developed in all individuals (Forgas and Jones, 1985). It is for this reason that Goffman (1971) notes that the success of self-presentation depends on the ability of the presenter. The challenge consists in successfully convincing other individuals of the impression or the image that is meant to be conveyed. In the context of classroom instruction, it is thus advantageous to show interest in the subject matter and to manifest motivation and engagement because being interested, motivated, and engaged in itself might not suffice if the teacher does not recognize it. A student who is not able (or not willing) to muster engagement spontaneously should at least try to make others believe that he or she is truly engaged. Irrespective of the motives behind this attempt, the effort is necessary for sparing the others', e.g., teacher's feelings and maintaining their favorable opinion (Goffman, 1967). This conclusion points to two aspects: First, impression management is related to decency and politeness. Second, make-believe is an important dimension of impression management (Mercolli, 2012).

2.2. Impression management – A social skill

As set forth in the previous sections, the concept of impression management refers to active and deliberate efforts of individuals to present themselves in a social situation in a (usually positive) light for conveying a particular image with a particular intention (Baumeister, 1999; Matteucci, 2014; Parhankangas and Ehrlich, 2014). Make-believe performs a central function in this regard, particularly in situations in which a student is not able or willing to muster the engagement that is expected by the teacher (Goffman, 1967). These considerations make it plausible to assume that students who care what their teacher thinks of them make more effort to convey a positive image than students who do not care about their teacher's

perception. Furthermore, it is likely that students who do not satisfactorily succeed in school but would like to be successful rely more heavily on tactics of self-presentation than successful peers. In Eder's (1987) framework, such tactics mainly belong in the categories of demonstrative engagement, personal and situational adaptation, and ingratiation. In order to cast a positive light on themselves, students need to be sensitive to the expectations of their teacher. Impression management can therefore be regarded as a social skill that presupposes other skills like taking another individual's perspective (see Bandura, 1986; Selman, 2003) or possessing an understanding of social expectations and conventions (see Turiel, 1983).

2.3. Dimensions of students' impression management

With regard to the students' impression management and the question what strategies students apply in order to cast the self in a good light, a literature review showed that there is little research activity in this domain. Two central empirical studies on student tactics were conducted by Heinze (1980) and Hoferichter (1980). Heinze's focus on student strategies was, however, quite different from this paper's focus. Heinze (1980) namely developed a system of different strategies that students use for "surviving" boring and monotonous classes rather than to instances of positive impression management or relationship management with the teacher. In Hoferichter's (1980) study, children were asked what tips they would give a younger sibling on how to get through school as smoothly as possible. This question also pertains to coping strategies and not immediately to impression management or self-presentation as such. Eder (1987) adopted Hoferichter's question and used it in a study with a broader scope. He categorized the participating students' answers into nine distinct coping strategies (Eder, 1987, pp. 104f.): I. Participation and Learning, II. Demonstrative Engagement, III. Identification, IV. Integration, V. Situational Adaptation, VI. Personal Adaptation, VII. Ingratiation, VIII. Resistance, and IX. Distance and Withdrawal. Taking these categories as a basis, Maschke and Stecher (2006) developed a standardized instrument on coping strategies. Since this instrument does not capture strategies that are aimed at impression management, we could not apply it in our study either. Nevertheless, four of nine dimensions identified by Eder (1987) describe self-presentation tactics as we understand them as they focus on deliberately try to convey a positive image of the self as being interested, motivated and competent (authors). These dimensions are Demonstrative Engagement, Situational Adaptation, Personal Adaptation and Ingratiation. While demonstrative engagement describes the active effort to appear as interested and committed through participation, situational adaption tactics are used not to let demotivation or disinterest show. Personal adaptation and ingratiation describe tactics that rather invest in relationship work with the teacher. These four dimensions were supplemented by the dimension self-promotion which originated from a study on impression management of leaders (Gardner and Cleavenger, 1998). Self-promotion is defined as a "behavior that presents the actor as highly competent, with regard to certain skills or abilities" (Gardner and Cleavenger, 1998, p. 9) and can therefore also be understood as a special kind of demonstrative engagement.

As explained above, impression management is not about whether or not a student is truly interested in what is being taught but rather about whether a student is successful in conveying the image of an interested student to the teacher. Naturally, the question of whether students really succeed in making the intended impression on their teacher can only be answered by looking at the interplay between the individual student and the teacher. In order to find out whether the teacher interprets a student's behavior in the intended way, the student's self-report needs to be compared with the teacher's perceptions. Doing so first requires a valid measurement instrument that records student reports on their impression-management activities in the context of classroom instruction. This paper will, therefore, focus on the development and validation of a scale measuring impression management. In what follows, we shall present a prototype of such an instrument and describe how we implemented and validated it. As the qualification "prototype" indicates, the current version of the instrument is merely to be seen as a first attempt at capturing tactics of impression management. In particular, we seek to determine whether student impression management can be analyzed in a valid manner by drawing on Eder's (1987) work on coping strategies complemented by impression management strategies in the field of leadership and management (Gardner and Cleavenger, 1998). Aggainst this background, we focus impression management on self-presentation strategies that aim at presenting the self as being competent, motivated and interested. The reciprocal relationship between student impression management and the teacher's perception is, at the present state of development, still beyond its scope.

3. Aim, research questions, and hypotheses

The main aim of our project was to develop an ecologically valid instrument to analyze students' impression management in the classroom. Based on the school-specific coping strategies identified by Eder (1987) and Gardner and Cleavenger (1998), this instrument was supposed to capture the student perspective on self-presentation tactics. First of all, we wanted to test assumptions concerning the dimensionality of the construct (as a crucial aspect of construct validity) and criterion validity and design a practicable instrument, which was eventually achieved through item reduction. The focus was on three research questions:

1) Can impression management on an empirical basis be modeled as a one-dimensional factor or as a second-order factor, or is impression management to be regarded as a multi-dimensional model consisting of several differing tactics of self-presentation?

With respect to criterion validity, we wanted to clarify the following questions:

2) Is there a linear relationship between students who want their teachers to perceive them as engaged students (effort) and the use of tactics of self-presentation?
3) Is there a linear relationship between students who believe that their teachers perceive them as engaged students (effort) and the use of tactics of self-presentation?

As for construct validity, we expected that a multi-dimensional model would better fit and replicate the data than a one-dimensional model or a second-order model. This would confirm the relevance of Eder's (1987) categories (Hypothesis 1). As explained in Section 2, impression management is about the presentation of the self in public. With reference to Fend (1994), the self can be conceived as an "epistemic entity" that "is oriented towards understanding and grasping one's own inner world. This grasp is socially negotiated and thus constitutes the social character of the self. At the same time, it is dynamic and oriented towards change, an increase in extension, and ideals" (Fend, 1994, p. 199, translation by the authors). Fend (1994, p. 210) distinguished four dimensions of the self: the real self ("This is how I really am"), the ideal self ("This is how I would like to be"), the presented self (socially desirable self: "This is how they should think of me"), and the appearing self ("This is how they think of me").

As regards criterion validity, we assumed that students who care what their teacher thinks of them (presented self) score higher on the dimensions of impression management than students who are unconcerned with their teacher's perception (Hypothesis 2). Furthermore, we expected that students who believe that their teacher perceives them to be engaged in class (appearing self) score higher on those dimensions of impression management that aim at presenting oneself as a motivated and interested student (Hypothesis 3).

4. Operationalization and validation of the construct impression management

4.1. Operationalization of the construct impression management

As mentioned earlier, impression management in the context of school has rarely been the focus of empirical research. Since there were no measurement instruments available, we set out to develop our own scales. With the help of this range of new items we wanted to find out whether students deliberately use certain tactics for making a positive impression on their teachers. The formulation of the items rested on Eder's (1987) coping strategies. We included only those categories, however, that focus on the creation of a positive image and directly relate to the teacher or to instruction. The operationalization of the construct Impression Management consisted of five dimensions:

1) Demonstrative Engagement: This dimension relates to the tactics that students deliberately use for presenting themselves through active participation as motivated, interested, and engaged students. These tactics are characterized by a high degree of activity.
2) Self-Promotion (demonstrative engagement in terms of knowledge and skills): This dimension, in adoption of Gardner and Cleavenger (1998) targets tactics students use to present themselves as competent. That is, they demonstrate that they have the knowledge and skills necessary to follow and understand the lesson.
3) Situational Adaptation: This type of impression management rests on tactics that tend to be adaptive in nature. Their purpose does not consist in actively presenting oneself as a motivated or engaged student but rather in concealing disinterest.

4) Personal Adaptation: This dimension concerns adaptation to the teacher's expectations that suppose students to be interested and motivated.

5) Ingratiation: This dimension refers to active relationship management. The student presents himself or herself as a learner who respects and esteems the teacher and is obedient.

The items belonging to these five dimensions were tailored to German-language instruction and were hence worded subject-specifically. German is not only the national language of Austria (where the study has been conducted) but it counts also to the major subjects of teaching. Being skilled in German language was found to be an important factor for school success and further academic career (Becker and Hecken, 2007). Furthermore, it is to assume that it is easier for students to manage their impression and take influence on grading in a subject that is less based on objective grading criteria such as right or wrong. The final version of the questionnaire consisted of 18 items in total that were to be rated on a four-point Likert-type scale (1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree).

As a basis for evaluating criterion validity, the students were asked to answer additional questions about their presented self (according to Fend, 1994) with respect to the effort they make in class. The scale *Presented Self* (effort to present oneself as an engaged student) included five items with the following structure:

I want my German-language teacher to think that …

1) I make an effort in the German-language class ($\lambda = 0.77$; M = 3.38; SD = 0.76).

2) I am interested in the German-language class ($\lambda = 0.75$; M = 3.43; SD = 0.74).

3) I am motivated in the German-language class ($\lambda = 0.78$; M = 3.47; SD = 0.71).

4) I learn a lot for the German-language class ($\lambda = 0.65$; M = 2.86; SD = 0.996).

5) I follow the German-language teacher's instructions ($\lambda = 0.67$; M = 3.40; SD = 0.74).

Agreement and disagreement with these five items could again be expressed through the above mentioned four-point Likert-type scale. The means (*M*) and the standard deviations (*SD*) of the five items (values added in parentheses) indicate that the students on average agreed with the items. Four of the five items reached an average above 3 (maximum = 4). The significant standard deviations point to a certain degree of variability, however. Cronbach's Alpha of the scale Presented Self proved to be satisfying ($\alpha = 0.85$).

The scale Appearing Self (belief that one is perceived as an engaged student) also included 5 items that had to be rated on the same four-point Likert-type scale ($\alpha = 0.82$). The wording of the items went as follows:

It is likely that my German-language teacher thinks that …

1) I make an effort in the German-language class ($\lambda = 0.77$; M = 2.93; SD = 0.86).

2) I am interested in the German-language class ($\lambda = 0.74$; M = 2.91; SD = 0.84).

3) I am motivated in the German-language class ($\lambda = 0.83$; M = 2.88; SD = 0.86).

4) I learn a lot for the German-language class ($\lambda = 0.55$; M = 2.46; SD = 0.97).

5) I follow the German-language teacher's instructions ($\lambda = 0.60$; M = 3.24; SD = 0.83).

The instrument had the form of a paper-and-pencil questionnaire whose completion took the students about 30 min. In addition, we collected biographical data of the participants.

4.2. Sample

In total, 201 high-school students ("Gymnasium" level) from six Austrian classes completed the questionnaire in class. 39% of the participants were male (78 students) and 61% female (123 students). The average age amounted to 14.3 years (SD = 1.31 years). The sample resulted from convenience sampling including all students who were present on the day of the survey. The data were hierarchically structured. Participation in the study was, however, voluntary.

4.3. Statistical analyses

All statistical analyses were conducted with the help of SPSS (version 23; descriptive analyses) and Mplus (version 7.2, Muthén and Muthén, 2012; latent variable models and correlation model). In order to do justice to the hierarchical data structure, we used the sandwich estimator (type = complex, Muthén and Asparouhov, 2011) that is implemented in Mplus and maximum-likelihood estimation with robust standard errors. Missing values were treated by means of full-information-maximum-likelihood estimation (FIML, Muthén and Muthén, 2012). The assumption was that the data were missing conditionally at random (MAR). For evaluating the goodness of fit of the individual models, we followed Hu and Bentler (1999) and applied the following criteria: $1 < CMIN < 3$, $CFI \geq 0.95$, $RMSEA \leq 0.06$, and $SRMR \leq 0.08$. The comparison of the models was based on the Akaike information criterion (AIC) and the Bayesian information criterion (BIC).

5. Results concerning impression management

5.1. Model comparison: Correlative five-dimensional model versus one-dimensional model and second-order factor model

As the project's main goal consisted in the development of an ecologically and valid instrument to measure students' impression management, a first step consisted in deleting items that did not reach a satisfying quality standard.

Only items with standardized factor loadings of ≥ 0.4 were considered further for statistical analyses. As Table 1 shows, five items were excluded. Thereafter, we identified all items with one or more cross loadings (*via* identification indices). This resulted in the exclusion of three more items. The decision to exclude them as well was not only statistically motivated but also theoretical. The cross

TABLE 1 Values resulting from the latent structural equation model of the five-dimensional structure of impression management.

Dimensions of IM	Loading	SE	Mean	SD	α
Demonstrative engagement					**0.86**
In my German-language class (*imGLc*), I often put my hand up with the intention of making my teacher believe that I'm motivated.	0.85	0.04	2.74	0.96	
ImGLc, I actively take initiative with the intention of my teacher ascribing a high level of motivation to me.	0.72	0.05	2.74	0.89	
ImGLc, I often put my hand up with the intention of making my teacher think that I'm interested.	0.896	0.02	2.72	0.99	
Self-promotion					**0.74**
Even if I do not know the correct solution *imGLc*, I try to behave as if I know it.	0.72	0.02	2.46	0.96	
When many students put their hand up *imGLc*, I put my hand up too to make the teacher think that I know the answer even if this is not always true.	0.57	0.04	1.69	0.97	
ImGLc, I try to look as if I know the answer.	0.82	0.04	2.31	1.03	
Situational adaptation					**0.83**
ImGLc, I do not let my disinterest show.	0.48	0.03	3.04	0.85	
ImGLc, I try to appear motivated even though I'm (sometimes) not motivated.	0.68	0.03	3.12	0.80	
ImGLc, I do not let it show that I'm not motivated.	0.63	0.03	2.89	0.93	
ImGLc, I behave as if I were interested in German.	0.78	0.04	2.95	0.87	
ImGLc, I behave as if I were motivated.	0.81	0.06	2.94	0.80	
Personal adaptation					**0.73**
ImGLc, I sometimes fake interest because I want to leave a positive impression.	0.59	0.08	2.89	0.90	
ImGLc, I sometimes fake participation because I want my teacher to think that I'm a good student.	0.66	0.096	2.90	0.85	
ImGLc, I sometimes make my teacher believe that I have prepared myself for class even if it is not true.	0.53	0.04	2.51	0.87	
ImGLc, I sometimes fake motivation because I want to leave a positive impression.	0.84	0.03	2.66	0.96	
Ingratiation					**0.66**
I pretend to fulfill my teacher's expectations.	0.77	0.06	2.83	0.87	
I pretend to follow my teacher's instructions.	0.61	0.09	2.72	0.91	
When my teacher explains what we are supposed to do, I pretend to find this important.	0.48	0.07	2.58	0.87	

loadings indicated that the content of the items did not capture the intended dimension well enough. In the last step, we accepted an error correlation between two items of the dimension Situational Adaptation: "In my German-language class, I do not let it show that I'm not interested" and "In my German-language class, I do not let it show that I'm not motivated" ($r = 0.26$; $p < 0.01$). The wording of these items is almost identical. The only difference is that the first item relates to interest while the second item relates to motivation. Error correlation thus seemed to be acceptable.

After excluding the items with too low quality, we made use of confirmatory factor analysis for calculating a correlative five-dimensional model (Model A) that was based on the remaining 18 items. Table 1 provides an overview of the exact wording of the remaining 18 items together with their factor loading, standard error, mean, and standard deviation. The item characteristics achieved a satisfactory model fit ($\chi^2 = 189.313$, $df = 124$, $p < 0.01$; CMIN = 1.43; CFI = 0.952; RMSEA = 0.051; SRMR = 0.054; AIC = 8227.026; BIC = 8441.74). Reliability was tested by means of Cronbach's Alpha of the dimensions. Internal consistency proved to be satisfactory with values between $\alpha = 0.66$ and $\alpha = 0.86$.

Table 2 shows the correlations between the latent dimensions. It is discernible that the dimension Personal Adaptation correlates highly with three of the four other dimensions. The correlation with the dimension Ingratiation turned out to be very high ($r = 0.86$) and

thus slightly exceeds the value that Brown (2006) identified as the critical limit for one-dimensionality ($r = 0.85$). The content of both dimensions concerns the students' behavior towards the teacher, which is intended to create a positive impression. Nevertheless, there is a clear difference: the dimension Ingratiation focuses on the intention to make the teacher believe that the student is obedient whereas the dimension Personal Adaptation relates to the attempt to pretend motivation and interest in the subject. As these two dimensions can be distinguished at least from a theoretical and an analytical point of view, we decided to retain the five-dimensional structure for the time being and compared it to a one-dimensional model and a second-order model (see Table 3, Hypothesis 1).

As already mentioned, AIC and BIC served as evaluation criteria. In addition, we carried out a chi-square test of independence. As far as the two information criteria (AIC, BIC) are concerned, low values are considered to be better than high values. For applying a chi-square statistic, it is necessary to test whether the deviation in χ^2, given the non-centrality parameter delta of the degrees of freedom (df), is significant. If robust maximum-likelihood estimation (MLM) is used, the chi-square test for differences needs to be corrected for the scaling correction factor (Satorra-Bentler correction).

Table 3 displays the results of the model comparison. A comparison between the correlative five-dimensional model (Model A) and the one-dimensional model (Model B) shows that the goodness

TABLE 2 Correlations between latent dimensions of self-presentation.

	Self-promotion	Situational adaptation	Personal adaptation	Ingratiation
Demonstrative engagement	0.19*	0.62***	0.39***	0.29***
Self-promotion	1	0.39***	0.73***	0.71***
Situational adaptation		1	0.78***	0.699***
Personal adaptation			1	0.86***

***$p < 0.001$.
*$p < 0.05$.

TABLE 3 Model comparison with optimized model: Results of χ^2 difference tests (corrected according to Santorra-Bentler).

Model	χ^2 (df)	CFI	AIC	BIC	Delta (comparison with Model A)
Correlative five-dimensional model (A)	189.31 (124)	0.952	8227.03	8441.74	Basis model
One-dimensional model (B)	571.64 (134)	0.675	8627.88	8809.56	Δ χ^2: 400.52, df: 10, $p < 0.001$
Second-order model (C)	233.32 (129)	0.923	8269.66	8467.86	Δ χ^2: 34.17, df: 5, $p < 0.001$

of fit of Model B is very poor (CMIN = 4.27; CFI = 0.675; RMSEA = 0.127; SRMR = 0.106). The AIC value is considerably higher than in Model A (8627.88 vs. 8227.03). The same applies to the BIC value (8809.56 vs. 8441.74). It is therefore not surprising that the chi-square test (corrected according to Satorra-Bentler) is highly significant (χ^2 = 400.52, df = 10, $p < 0.001$). Thus, it is reasonable to prefer the correlative multi-dimensional model (Model A) to the one-dimensional model (Model B). Although the goodness of fit of Model C, which suggests a latent variable Impression Management as a second-order factor, apparently only slightly diverges from the cut-off criteria (χ^2 = 233.32, df = 129, $p < 0.01$; CMIN = 1.81; CFI = 0.923; RMSEA = 0.063; SRMR = 0.077; AIC = 8269.66, BIC = 8467.86), the comparison between the models clearly indicates that Model A is to be preferred. The AIC and BIC values are higher for Model C, and the chi-square test, corrected according to Satorra-Bentler, turned out to be significant (χ^2 = 34.17, df = 5, $p < 0.001$). As regards the loadings of the constructs on the second-order dimension, it becomes visible that the latent variable Demonstrative Engagement in particular has a comparatively low loading (λ = 0.441) while the dimension Personal Adaptation has a high loading (λ = 0.986).

After the evaluation of the fit indices, we can conclude that the five-dimensional model proved to be better than the one-dimensional model (g-factor model) as well as the second-order model. For this reason, we used Model A as the starting point for measuring different aspects of impression management and thus for an empirical clarification of the second and the third research question and Hypotheses 2 and 3.

5.2. Evaluation of criterion validity: Correlations

In order to test Hypotheses 2 and 3, we introduced the scales Presented Self and Appearing Self (Fend, 1994, also modeled as latent constructs with correlated errors of items with the same content but differing modalities of the self) as correlates to the five-dimensional model. The scales Presented Self and Appearing Self correlated

significantly with each other (r = 0.45; $p < 0.001$). The moderate correlation indicated, however, that these two concepts of self-reference can be discriminated. Table 4 gives an overview of the correlations between the dimensions of impression management and presented self as well as appearing self (under mutual control).

With respect to Hypothesis 2, four of the five expected correlations proved to be positively significant. Students who expressed a stronger wish to be perceived as being engaged in the German-language class (presented self) showed higher ratings of the dimensions Demonstrative Engagement (r = 0.41; $p < 0.001$), Situational Adaptation (r = 0.59; $p < 0.001$), Personal Adaptation (r = 0.32; $p < 0.001$) and Ingratiation (r = 0.28; $p < 0.05$) than their peers. That is to say, the more they care whether or not their teacher perceives them as being engaged in the class, the more they demonstrate their engagement and the less they let show that they are not motivated or interested. This finding supports Hypothesis 2. The correlation between the dimension Self-Promotion and the presented self, by contrast, was not found to be significant (r = 0.15; ns). As for the appearing self, the correlations with the dimensions Demonstrative Engagement (r = 0.48; $p < 0.001$), Situational Adaptation (r = 0.55; $p < 0.001$) and Personal Adaptation (r = 0.18; $p < 0.05$) proved to be significant, which is in line with expectations and thus consistent with Hypothesis 3. These three dimensions of impression management all—with more or less active effort—aim at presenting oneself as an interested, motivated and engaged student.

6. Discussion

The starting point of our work presented in this paper was the assertion that evaluations of academic achievement by teachers only seldom rest on purely objective criteria alone. Rather, there is usually scope for decisions and weighting. In view of this, many empirical studies have included—besides data that relate to the students' level of cognitive performance—socio-demographic characteristics such as, for instance, the number of books at home (OECD, 2001) for explaining individual differences in achievement. The extent to which

TABLE 4 Correlations between impression management and the presented as well as appearing self.

Dimensions of impression management	Presented self regarding student's effort (Hypothesis 2)	Appearing self regarding student's effort (Hypothesis 3)
Demonstrative engagement	0.41***	0.48***
Self-promotion	0.15 ns	0.01 ns
Situational adaptation	0.58***	0.55***
Personal adaptation	0.31***	0.18*
Ingratiation	0.27*	0.22 ns

ns = not significant.
***$p < 0.001$.
*$p < 0.05$.

students can actively influence their teachers' evaluations through their own behavior and their self-presentation, by contrast, has mostly been excluded from the search for explanations. One reason for this omission might be that the term impression management carries a negative connotation in the sense of "deceit." Even though impression management and deceit are conceptually distinct, acting-as-if can still be understood as a special kind of deceit. The reason for this is that the act of availing oneself of certain strategies of self-presentation is often aimed at making a "false" impression on another person so that there is indeed a certain intention of deceiving (Mercolli, 2012). That impression management in the context of classroom instruction can also have something to do with decency and politeness has only rarely been taken into consideration so far. This is a serious shortcoming because strategies of impression management can "open up real chances for action to both the individual and the collective classroom community" (Maschke and Stecher, 2006, p. 513, translation by the authors). Likewise, Reichenbach (2013) pointed out that classroom instruction in general can be seen as an interaction essentially consisting of exchange and deceit. Deceit in the sense of make-believe can be deemed functional because it contributes to maintaining discipline and order in the classroom and thus stabilizing the social fabric. Situations, as Reichenbach (2013) emphasizes, in which neither exchange nor deceit is possible, may result in open problems, probably even in open conflict. If there is neither exchange nor deceit, no teaching will be possible anymore (pp. 123–124).

Building on this functional understanding of impression management, we pursued the question concerning the extent to which students deliberately avail themselves of strategies of self-presentation. The overall aim of our empirical research consisted in developing and evaluating an instrument for analyzing student tactics that serve the purpose of positive self-presentation. Taking Eder's (1987) categorization of student coping strategies as a starting point supplemented by a dimension of Gardner and Cleavenger (1998), we eventually arrived at a valid five-dimensional correlative measurement model. This model of impression management proved to be more appropriate than a one-dimensional model (g-factor) or a second-order model (hierarchical model). For optimizing the fit, eight items had to be excluded, however. At the same time, this reduction led to an increase in the economy of the instrument and thus in its practicability.

The results of our data analyses showed that students possess tactics of self-presentation that accentuate their engagement in class

in a demonstrative way, emphasize their knowledge and their skills, and serve the purpose of personal adaptation and ingratiation (teacher-student relationship). Hypothesis 1, which assumed that a multi-dimensional model would be the most suitable option, could thus be confirmed.

In line with expectations as expressed in Hypothesis 2, we were also able to show that students who want their teachers to perceive them as making an effort (presented self) indeed make an effort and achieved higher means in four of the five dimensions than students who care less about their teachers' perception. The correlation between the presented self and the dimension Self-Promotion, by contrast, was not significant. This is plausible, however, because it is the only dimension of impression management that focuses neither on learning (demonstrative engagement and situational adaptation) nor on relationship management (personal adaptation and ingratiation) but rather aims at pretending to have understood the content of the German-language class. This dimension may have different types of consequences: if it comes off well, this kind of deceit may have negative effects and reduce the student's learning gain at school because the teacher might suppose that the content that was to be conveyed has been understood and therefore considers further or differently worded explanations to be unnecessary.

Like Hypothesis 2, Hypothesis 3 was confirmed as well. We found significant positive correlations between the appearing self and the dimensions Demonstrative Engagement, Situational Adaptation, and Personal Adaptation. All three strategies aim at presenting oneself as an interested and motivated student. Thus, students who believe that their teacher considers them to be an engaged student (appearing self) also score higher on those dimensions of impression management that pertain to presenting the self in this way.

In view of these findings, the question of the positive function of impression management ought to be addressed in a further empirical study with an extended scope that analyzes the effects of the five dimensions on the students' academic success within a longitudinal research design. The rationale behind this desideratum is that it is plausible to assume that particularly experiences of discrepancy (e.g., wanting to be perceived as an interested and motivated student but not appearing to be interested and motivated in the present situation) can, in the long run, have effects on a student's impression management and its adaptation, transformation, and development. The research focus of this paper was restricted to the development and the empirical validation of an instrument that serves the purpose of measuring student impression management in German-language classes. This initial step is indispensable, however, because it prepares the groundwork for a thorough empirical investigation both of the correlations between impression management and a teacher's evaluation of a student's achievements, and of the development of impression management tactics and their long-term consequences. Nevertheless, there might be other self-presentation tactics as for instance to appear respectful, humble, or even such that do not aim at casting the self in a good light which have not been considered due to the paper's focus on a positive impression management. This focus is clearly a limitation of the study as well as the fact that the instrument is based on only two empirical studies one in the context of school the other in leadership management. Other limitations are the rather small sample size, the high correlation between two dimensions which indicates a not so optimal model fit as well as the neglected hierarchical data structure. Furthermore, we emphasized that impression management can be regarded as a social skill. In

empirical research, the construct has only been operationalized *via* self-reports until now. In order to investigate in what ways and to what extent impression management is successful, it will be necessary to include objective and relational (teacher ratings, comparison with student ratings) data. Given this desideratum, a critical point that has repeatedly been raised also applies to our study, at least from an empirical point of view: Classroom interaction has mostly been analyzed in a unidirectional way so far. Besides, we have evaluated our instrument merely in a convenience sample, and the scales are still in need of optimization.

Despite these limitations, our study can be deemed relevant in several respects, and it provides a promising starting point for further research. First, students seem to be aware of their efforts in terms of (positive) impression management, and they know that they can avail themselves of specific tactics that can be applied for the purpose of self-presentation in different educational situations. Against this background, it seems worth investigating to what extent the use of self-presentation tactics pays. This question could also be addressed from the angle of potential undesirable effects of socialization because successful impression management could lead to the conviction that clever social behavior can compensate for lacking effort and engagement. Second, our analyses show that the construct Impression Management is characterized by variance. That is to say that not all students make use of tactics of self-presentation to the same extent. Besides, as first results indicate, not each form of impression management is equally functional with respect to academic success (i.e., positive evaluations of student achievements). Follow-up studies could thus address the question as to whether there is also a negative or "wrong" form of impression management (concealing a lack of understanding or pretending understanding) that might have negative consequences. Third, the possibility that successful impression management can affect the diagnostic quality of teacher evaluations of academic achievement is worth considering in the context of the discourse on pedagogical professionalism.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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