



Classroom observation as an instrument for school development: School principals' perspectives on its relevance and problems



Anna Haep, Kristin Behnke, Gisela Steins*

University of Duisburg-Essen, Faculty of Educational Science, Institute of Psychology, Germany

ARTICLE INFO

Article history:

Received 18 November 2015

Received in revised form 16 March 2016

Accepted 18 March 2016

Available online xxx

Keywords:

Classroom observation

Credibility

Benefit

School principals

Feedback

ABSTRACT

Classroom observation can have diagnostic, evaluative and counseling purposes and can be regarded as a traditional instrument for the processes that are planned for school development. However, the evaluative character of classroom observation can also be interpreted as a controlling measure and therefore, lead to stress and fear in the observed individuals. This might bring about resistance against the feedback which results from classroom observation. In order to be able to focus on the useful aspects and the benefits of classroom observation, it is important to understand which factors make the instruments of classroom observation credible and reliable for the teachers who are being observed. It is central to our current topic to understand the specific criticism concerning the area of teaching and learning within a school inspection and to work out the factors which contribute to the credibility of classroom observations on one hand, and the factors which reduce it on the other hand. For this purpose, we analyzed the statements of fifty school principals on classroom observation taken from overall interviews concerning the expectations of those principals towards school inspections in North Rhine-Westphalia (NRW). The results clearly indicate that classroom observation is a critical process for teachers. Not being able to observe the classroom credibly can have several negative effects. Therefore, this research concentrates on ways that can improve the credibility of classroom observation.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

An individuals' self-reflection is an essential precondition for the learning process (Espasa & Meneses, 2010; Shute, 2008). The quality of teaching and school lessons can be improved through a critical and systematic assessment of one's own performance in relation to certain goals (Schraw, Crippen & Hartley, 2006). Self-reflection processes of teachers are important foundations to guarantee a higher quality of teaching and lessons because they can show the need for changes and adjustments in organizing the process of teaching and educational settings. This insight, although already mentioned in older literature is still an urgent goal of teacher education (Behnke, 2015; Steins, Haep & Wittrock, 2015).

Without an inventory and a valid description of the status quo, target-oriented changes in teaching remain an ineffective endeavor. This paper intends to firstly name arguments for the necessity of an external feedback. In the following, difficulties which are

connected to external evaluations and their results will be described. Both aspects lead to the empirical question which deals with the pros and cons of external classroom observation: It is intended to work out the factors which contribute to the credibility of classroom observations on one hand and the factors which reduce it on the other hand. The results will be discussed on the basis of the question how the acceptance of external classroom observations can be increased in order to secure an increased usage of feedback.

2. External classroom observation: why it is necessary

Self-reflections, which are induced through the individual's own observation or introspective measures, carry the risk of bearing the falsification of reality. It is very unlikely for human beings to succeed in realistic self-perceptions, although special instructions in a laboratory situation have been found to improve the ability of a realistic self-perception significantly (e.g. Regan & Totten, 1975). Further results state that human beings have a certain awareness of their distorted perceptions and therefore, these kinds of perceptions do not necessarily have to occur (Krueger, Ham & Linford, 1996). Observer-actor-effects (Krueger et al., 1996), self-serving biases (Tesser, 1988) and many additional

* Corresponding author at: Universität Duisburg-Essen, Campus Essen, Fakultät für Bildungswissenschaften, Institut für Psychologie, Universitätsstraße 2, D 45141 Essen, Germany.

E-mail address: gisela.steins@uni-due.de (G. Steins).

universal, social and human processes of perception hinder an objective cognition and may lead to routine-blindness (Landes & Steiner, 2013).

Teachers are no exception when it comes to the processes mentioned above. They tend to underestimate the relevance of their own work and its impact on students. In addition, they evaluate their teaching quality divergently to the assessment of the students (Hattie, 2009).

It can be expected that a realistic self-perception in everyday school life is not always possible for all teachers. Teachers are more likely to receive informal positive feedback than negative feedback from students and their parents, since negative feedback is unlikely to reach the top of the hierarchy (Forsyth, 2013; Smith & Fortunato, 2008). Informal feedback from parents, teachers and colleagues is moreover potentially never to be parted from the interests of the sender of the message and can, for example, result in flattery or compliments (Gordon, 1996; Romero-Canyas et al., 2010; Vonk, 2002).

Feedback sources can definitely be found in everyday school life, but these are often very unsystematic and vague. Therefore, external classroom observation is necessary in order to give the single teacher as well as the whole school an overview of their teaching quality and help them, to develop the quality of teaching toward a positive direction. Thus, an external classroom observation may help to validate one's own internal observations and the whole school.

3. Dealing with external classroom observation

Research on feedback explicitly shows that people tend to avoid negative feedback, whenever they have the opportunity to do so (Duval & Wicklund, 1972). Whenever the avoidance of negative feedback is not possible, its relevance or credibility might be reduced in order to secure the individuals' self-worth. One option to lessen negative feedback is to question the credibility of the sender (Behnke, 2015). The feedback is then trivialized as unqualified, because the credibility and attribution of expertise are closely connected (Gray, Andermann & O'Connell, 2011). Furthermore, the manner of the acknowledgement can be criticized and attacked so that the content appears unreliable and implausible (Tenney, Small, Kondrad, Jaswal & Spellman, 2011). The above mentioned the defensive strategies that can lead to an attitude and atmosphere in which feedback is most likely to be ignored.

Numerous research findings show that many teachers do not welcome external classroom observation (Brimblecombe, Ormston & Shaw, 1995). Reasons for this attitude are multiplex (Bitan, Haep & Steins, 2015). External classroom observation may reduce the freedom of the individual teacher to conduct "his/her" lessons as he/she prefers and believes is best and therefore may induce reactance (Brehm & Brehm, 1981). The reduced freedom is then regained through not taking part in the observation at all or by trivializing the resulting feedback. By any means, an external classroom observation will lead to feelings of anger and resentment within the teacher. Furthermore, a teacher who estimates his/her teaching skills as low, may experience fear and stress consequent to the external classroom observation (Komp, 1989). People can use various possibilities in order to protect their self-worth in such a situation (Tesser, 1988); most of them lead to devaluation of the feedback results.

Reactance and fear are responses to external classroom observations, which can be classified as dysfunctional from the perspective and aim of a progressive school development. Nevertheless, these responses hint at specific problems which are responsible for the fact that feedback is not implemented and that it remains unappreciated. This fact is regrettable both in

content-related and economic points of view. For those who operate as external classroom evaluators and give feedbacks, it is not easy to differentiate between dysfunctional and functional criticism concerning classroom observation and its instruments.

4. Our research

The difficulties which are connected to an external classroom observation for the observed teachers shall be presented using the example of the school inspection in North Rhine-Westphalia (NRW). School inspection is referred to as Quality Analysis in NRW. Quality Analysis in this federal state is a mandatory external evaluation. School inspectors in NRW work with evaluation criteria, which are depicted by a quality index representing six different school areas. These areas are: Professionalism, aims and strategies, school results, leadership and school management, school culture, teaching and learning. They are differentiated into 28 quality aspects, which are depicted by 150 quality criteria. Within two to three days of a school visit, the school inspectors observe at least 50% of the lessons, respectively twenty minutes of the chosen lesson, and evaluate their observations guided by the criteria.

The acceptance of school inspection by schools before actually experiencing it, is subject to an analysis, which has already been conducted and in which we could show that 41% of the interviewed principals who were expecting school inspection had negative attitudes towards quality analysis, whereas 38% voiced a positive and 21% a neutral position (Bitan et al., 2015).

Negative attitudes were particularly characterized by generalizing negative depictions as well as disastrous future expectations, but also rational criticism concerning the procedures of school inspection could be detected. It is central to our current topic to understand the specific criticism of the interviewed principals concerning the area of school inspection, which is the main work of teachers, namely the area of "teaching and learning". This area is categorized into five categories consisting different criteria, for example: The category "The teacher is supporting the student in an active learning process" is apprehended by six criteria such as "Students have the opportunity to work autonomously and they are supported by the teacher in their work process".

The feedback of the school inspectors is given in a systemic way, meaning that teachers do not get a feedback individually but rather the school as a whole.

Principals were interviewed about the complete quality index in an open form. Thus it is possible to examine which areas of the quality index have a central relevance for school principals. The significance, which is ascribed to a certain topic, ought to be apprehended by analyzing the proportion of statements made concerning the topic in the interview. It is essential for the current article to work out the factors which contribute to the credibility of classroom observation on one hand and the factors which reduce it on the other hand.

5. Method

5.1. Setting and procedure

We collected our data with focused interviews in face-to-face situations. As a stimulus, we chose the aims, the procedures' time line and the objectives of school inspection as the main topics. For each of the topics, all the principals were asked to express their opinions and points of view.

All interviews took place at schools in which the respondents worked, with one exception: One principal wanted to lead the conversation in the office at the university. All interviews were conducted by a female interviewer (25 years) who had passed her

state examination for the area of high school/comprehensive school. During the interview, a Smartpen was used (Livescribe Smartpen), the transcription of the auditory material was supported by a speech recognition program (Dragon). All interviews were transferred into a text file.

5.2. Sample

A representative sample of the total number of schools in NRW ($N=6303$) has randomly been drawn. Only those schools were selected which still had not gone through school inspection yet in order to apprehend the anticipation of the principals before school inspection. Each type of school – elementary school, secondary modern school, middle school, high school, comprehensive school, vocational school and special education – is represented 7 times; high schools are represented 8 times. That makes a total number of 50 interviews. We drew the respondents randomly. Therefore, gender is not evenly distributed in this sample (32 male principals and 18 female principals). Some parts of the data of this sample which describe the principals' attitudes have already been published (Bitan et al., 2015). The present analysis exclusively focuses on the criteria of evaluating teaching, a highly important aspect that we did not consider in our earlier publication.

5.3. Analysis of the interview material: mixed method

We chose a qualitative approach because we intended to explore subjective perspectives regarding the research questions. Therefore, an exploratory approach was preferred over a hypothesis-based approach. The exploratory approach was used in order to obtain and aggregate further knowledge in the research area in question (Patton, 2002) and also to find themes concerning our research questions. Two experts coded the interview transcripts fully which was supported by software (MAXQDA). Each statement was coded and there was no residual category. Controversial coding was resolved by discussion (3%). Statements containing a negative or positive evaluation of classroom observation had to show clear indications.

On the other hand we simultaneously generated quantified information. Thus, we can relate contents to each other by working with mixed method (Creswell, 2014).

6. Results

6.1. Relevance of classroom observation

The topic “teaching and learning” did not only receive the majority of the statements within the quality index in total (103 of 235 statements; 43.83% of statements for learning and teaching). It also received most of the negative statements (26.44%; but also 38.33% of positive statements; see Table 1).

Table 1
Frequencies of statements about the areas of school inspection.

Area	total	positive	negative	neutral
School Culture	40	13	13	14
Leadership & School Management	30	6	9	15
School Results	28	5	8	15
Aims & Strategies	20	8	2	10
Professionalism of Teachers	14	5	2	7
Learning & Teaching	103	23	53	27
Percent of Learning & Teaching	43.83	38.33	26.44	30.68

6.2. Negative, neutral and positive statements concerning the criteria of the external classroom observation (learning & teaching)

In the following, we would like to give an exemplary overview of the contents of these statements, categorized into negative and positive contents. 103 statements have been made concerning the area of teaching and learning. 22% of these statements were positive ($f=23$), 27% were neutral ($f=27$) and 51% statements were negative ($f=53$). The high number of negative statements has to be put into perspective, since one single school principal voiced 22 negative assertions. Table 2 presents an overview of the distribution of the statements concerning the frequency and percentage of school principals.

The neutral statements will not be analyzed in the following, since they do not contain any further information on the subject matter.

6.3. Negative statements

The negative statements can be structured into eight content-related areas.

6.3.1. Lack of representativeness

Most of the statements concerning the observation and evaluation of teaching can be summarized as follows: The observed segment of the lessons is not regarded as being representative. This impression created a “feeling of being unfairly judged”. The observation consisted of “fragments only” and inspectors would “not see the whole picture and its function at all”. The personality of the teaching staff would not be perceived and appreciated. It was stated that teaching was not only about what was taught and how it was taught, but also about who would taught the students. It was additionally claimed, that inspectors, who conducted classroom observations, which took place in lessons with a length of 60 min would only see one third of a school lesson. A change of methods and teaching diversity could not be observed in such a short time frame. “If a person sits down there and sees a teacher whose only teaching method is asking questions and receiving the answers: Which impression does this person get? Does he say to himself: ‘Well, I don’t think that anything else is happening here’? Or does he think: ‘I might just have seen a stage in the lesson, in which no change of methods took place’?” School principals stated that a valid observation could only be conducted through a panel study; this was confirmed by their own experience. One school principal stated the opposite: “Twenty minutes are nearly too much”.

Table 2
Frequencies of negative, neutral and positive statements about Learning & Teaching
(f) Frequency of Statement; SP: School principals.

	(f) Statement	(f) SP	(%) SP
negative	22	1	2
	7	1	2
	3	3	6
	2	2	4
	1	11	22
	0	32	64
neutral	6	1	2
	4	1	2
	3	1	2
	2	2	4
	1	11	22
	0	34	68
positive	5	1	2
	2	2	4
	1	14	28
	0	33	66

6.3.2. Focus on cooperative learning methods

The perceived high significance of cooperative learning methods is another area which was commented on. Principals stated that cooperative learning methods would not always be necessary, but their absence meant a negative measurement in classroom observation. These methods would not lead to better results than teacher-centered settings. One principal stated: “The only outlasting factor is that every colleague who is successful, teaches in a very structured way. It means that the teacher as well as the children knows what is supposed to happen from the beginning to the end.” Educational policy in Finland is referred to as an example here. Some principals consider that the usage of cooperative learning methods is being hindered by underlying circumstances such as safety constraints and classroom disruptions.

6.3.3. Exaggerated standardization

The criteria for the classroom observation and the evaluation of lessons were experienced as “cooking strictly with the help of a recipe book” and as “over-standardized”.

6.3.4. Instrument of control

The classroom observations would induce negative feelings such as nervousness and fear in teachers. They would have the impression of being controlled and this would burden school life in general.

6.3.5. Distorted representation of reality

Some school principals stated that the criteria for classroom observation and the evaluation of teaching would not mirror reality. Some parameters which would help to realize many important aspects concerning the evaluation were missing. The size of groups or classes was being neglected in favor of judging the learning atmosphere. The sole responsibility for didactical and methodical strategies would be pushed off to the teachers. All in all, school inspectors were perceived to be “judgmental”; they expected to see a certain kind of teaching and everything else would be interpreted as “deficiency”. Within all these statements, the definition of good teaching and good lessons play an essential role. School principals stated that even experts were in disagreement with each other when it comes to defining this matter clearly.

6.3.6. Non-transparent criteria for the choice of the observed teachers.

The choice of the observed teachers was mentioned in one statement. Here, the school principal talked about rumors that severely handicapped colleagues would not be included in the evaluation and the school inspection.

6.3.7. Consequences for the individual teacher

One last statement refers to the consequences for the individual teachers which are drawn from the classroom observations. Especially in bigger schools and school systems it would be bad to give each school a systemic evaluation, this was “not thought right to the end”. Colleagues would get the possibility to hide in anonymity and they would not receive sufficient feedback.

6.3.8. Negative emotional side effects of classroom observation

64% of the interviewed school principals did not pay particular attention to the topic stresses and strains for the colleagues. However, 36% of the school principals mentioned burdens of the teaching staff induced by school inspection in form of emotional stress and higher time expenditure. One of the reasons could be that at this point of time, schools could not decide independently or practice control when school inspection would evaluate them, a policy which has changed since summer 2015. School principals

named a number of negative emotions which were aroused in some of their colleagues through school inspection.

Stress was anticipated at least for some of the teaching staff, especially because of the classroom observation and the evaluation of the lesson. “. . . I also think that there are some colleagues who would say: ‘I feel stressed by the fact that someone is sitting there and watching my lesson and I really try to teach well’. Whereas other colleagues simply may say: ‘I absolutely don’t think it’s necessary to set up a show lesson.’ “

Fear is another emotion, which school principals alluded to in combination with the classroom observations. These observations could even lead to the fact that some teachers would not show up on the dates of the school inspection. “And I know many fears, from which colleagues suffer. Some schools report that these fears reach up to the point that many teachers do not show up when school inspectors come to visit their school.”

Additionally, the fears of especially older teachers were mentioned, who feel insecure and worried about the evaluation. “Well, I think that these are the aspects which are fearful for many colleagues in general and there are many teachers working at my school who are more than 60 years old and they would say ‘I don’t understand why I have to deal with a situation in which someone visits my lessons and tells me I’m not doing a good job after teaching for 35 or 40 years whereas the parents as well as the school principal have always been content with my lessons.’ That really irritates them. But I think that one or two of them might still not have sufficient information about the process of school inspection.” Teachers are often described as nervous, fearful and over-challenged when facing school inspection.

6.4. Positive statements

In contradistinction to the negative statements we did not find as many differentiated declarations within the positive statements. Several statements pointed out that the appointed time (20 min per evaluated lesson) and the extent of the classroom observation (50% of all lessons within one school) would be sufficient.

7. Discussion

The focus of this contribution is to understand the specific criticism of the interviewed principals concerning the area of *teaching and learning* within a school inspection.

The intention of this study was to work out the factors which contribute to the credibility of classroom observations on one hand and the factors which reduce it on the other hand. The analysis of the statements reveals some central factors which lessen the credibility of classroom observation. In this context, the transparency of the evaluation criteria as well as the resulting consequences, the fairness of the evaluation criteria and the validity of the instruments of observation and evaluation are being challenged. Moreover, the situation is classified as burdensome for a considerable number of the teaching staff.

To summarize, the statements represent a mixture of content-based and emotional points of criticism, which can lead to an overall negative evaluation of the whole observation system as well as the anticipation concerning its efficacy.

7.1. Implications concerning credibility of classroom observations

From the school inspection’s perspective it is significant to design and modify the instruments of school analysis in such a way that feedback is accepted and taken seriously. In order to increase the acceptance of the feedback expressed by Quality Analysis, the content-based and emotional objections need to be discussed openly.

The two dimensions of reality, namely the objective and the social one, can be very useful for such a discussion. If too many criteria for a good classroom observation are objectively violated, it will be adequate to question its benefit. Many studies show that the definition of teaching well and well-conducted lessons is dependent on many different factors, such as the age of the students for example (Weinstein, Laverghetta, Geiger, Peterson & Fuson, 2008). Therefore, the critique of a tool such as classroom observation can certainly be classified as realistic and correct if one single instrument is used in an undifferentiated way for every teaching situation. In this case, weightings could be modified and differentiated according to the potential target audience, which might lead to an increased credibility of the given feedback. Additionally, informal conversations, in which a school could comment on the particularities of its students and could substantiate its teaching methods, might lead to a higher credibility of classroom observation too.

In this context, the social dimension of reality is crucial. If the emotional difficulties related to classroom observation prevail, a reality will be constructed, which questions the received feedback in an inadmissible way. In dealing with such a complex instrument, one will always be able to detect a critical aspect. And if the teachers have emotional problems with the feedback, they will not be open to reasoning, even when it is rational (Abraham, Morrison & Burnett, 2006; Van Laar, 2007). Emotional difficulties and prejudices could also meet with improved transparency concerning the consequences. The results of classroom observations are reported systemically to the whole school and school inspection in NRW does not have any negative consequences. Nevertheless, the anticipation of shaming and blaming as well as the disruption of teachers' secure space leads to higher levels of stress and fear in many school principals and teachers. Thus, the whole action is counterproductive for a rational handling of feedback results. A promising way of enhancing the acceptance of classroom observation is to deal with the occurring emotional problems in a constructive way. Admittedly, it is legitimate to expect school principals and teachers to handle the feedbacks rationally, but this does not increase their level of credibility. Social reality works according to its own laws, which must be considered in this context. A supporting professional development does not exist and an ambience and general attitude towards a constructive way to deal with mistakes has still not been established yet.

Those responsible for such complex classroom observation systems will have to fight with both levels of reality. But once these instruments are analyzed concerning their criteria of credibility, a lot of starting points arise as a result, which can be used in practice as well as in research. The efficacy of different teaching methods is still an open question not only on the level of impact research but also on a more general level. Research results concerning the question "What is good teaching? What makes a perfect lesson?" are not consistent enough to be answered in a one-dimensional way (Ho, 2005). It is also an open research area, how big the proportion of ideological perceptions compared to verified research results is, when it comes to the development of new methods.

These research questions can only be satisfyingly answered in a developmental process, whose quality and duration are related to and dominated by the amount of resources which are made available and the quality of the research itself. From this perspective, it seems utopian to hope for a perfect classroom observation which can meet every objection (Barrow, 2006). But this insight is very important: Teachers and school principals should be much more included into the development of a binding instrument for external classroom observation. This result can be found in numerous research and lines of thought concerning the given topic (Robertson, 2006; Troyer, 1941–1942).

The interconnection between the administration and development of the school system as well as the theory and practice of teaching means that the ministerial level, university and school itself, are chances to shape and induce the necessary and systematic development process of good lessons and good teaching and to increase its acceptance.

The credibility of/and the participation in development processes as well as external school observation itself could be enhanced through the establishment of special advisory support offers. Informal evaluation settings and a regularly implemented feedback culture on the individual school level could support teachers and prepare them for standardized classroom observations conducted by school inspectors. The establishment of team-teaching and regularly attending classes by colleagues who teach the same subjects would be very useful in this context. School should be "opened up", when it comes to evaluation situations and the above named possibilities could easily be established on the level of every school.

By observing lessons, school inspection still often creates a situation and an atmosphere, in which many teachers, except very young ones who have just been trained and qualified for the teacher's job, are not at all used to—therefore, fear and reactance might be reduced through these steps towards a familiarization with evaluations and classroom observations (Behnke, 2015). A new atmosphere and culture of classroom observation and evaluation eventually has to be (re-)learned by teachers.

However, an interconnected perspective of many different levels and participation against the background knowledge that says the enigma of good teaching is not solved yet also means that school inspection can only give a provisional feedback, knowing that this feedback could be deficient. External feedback, which is based on this supposition, would lose its terror, turn into a stimulus and gain the status of a motivation. From such a perspective, it seems as a taboo to interconnect the evaluation results with negative sanctions. This leads to another interesting and relevant practical research question: How is it possible to deal with the interconnection of feedback and sanctions rationally (Frey & Oberholzer-Gee, 1997; Gustafsson et al., 2015)? And another question arises: Which ideologies are hidden behind different sanction systems and where is the empirical evidence for their efficiency?

8. Outlook

Currently, school inspection in Germany (NRW) explores some innovative forms of discussion groups in order to involve schools in the evaluation process and also to enhance participation early (Behnke & Steins, 2015). This process is investigated and the results will show if evaluation of teaching might be less associated with fear and stress after creating higher participation of teachers.

Compliance with ethical standards

The authors confirm that they complied with ethical guidelines.

Conflict of interest

The authors have no conflict of interest.

Acknowledgments

This research is part of the quality analyses project and is supported by the Ministry of Education and Research.

References

- Abraham, J. D., Morrison, J. D. Jr., & Burnett, D. D. (2006). Feedback seeking among developmental assessment center participants. *Journal of Business and Psychology*, 20, 383–394.
- Barrow, R. (2006). Empirical research into teaching. *Interchange*, 37, 287–307.
- Behnke, K. (2015). Umgang mit Feedback im Kontext Schule. *Erkenntnisse aus Analysen der externen Evaluation und des Referendariats (Dealing with feedback in the school. Knowledge from the external evaluation and Referendariat)*. Wiesbaden: Springer VS.
- Behnke, K., & Steins, G. (2015). Widerstand von Lehrkräften gegenüber Evaluationen—eine psychologische Betrachtung (Resistance of teachers against evaluations—a psychological reflection). *Lernende Schule*, 72, 9–12.
- Bitan, K., Haep, A., & Steins, G. (2015). School inspection still in dispute. An exploratory study of school principals' perceptions of school inspection. *International Journal of Leadership in Education*, 18(4), 418–439. <http://dx.doi.org/10.1080/13603124.2014.958199>.
- Brehm, S. S., & Brehm, J. W. (1981). *Psychological reactance. A theory of freedom and control*. New York: Academic Press.
- Brimblecombe, N., Ormston, M., & Shaw, M. (1995). Teachers perceptions of school inspection: a stressful experience. *Cambridge Journal of Education*, 25, 53–61.
- Creswell, J. W. (2014). *Educational research: planning, conducting and evaluating quantitative and qualitative research*. Harlow: Pearson.
- Duval, S., & Wicklund, R. A. (1972). *A theory of objective self-awareness*. New York, NY: Academic Press.
- Espasa, A., & Meneses, J. (2010). Analyzing feedback processes in an online teaching and learning environment: an exploratory study. *Higher Education*, 59, 277–292.
- Forsyth, D. R. (2013). *Group dynamics*, 6th ed. Pacific Grove, CA: Brooks/Cole.
- Frey, B. S., & Oberholzer-Gee, F. (1997). The cost of price incentives: an empirical analysis of motivation: crowding-out. *American Economic Review*, 87, 746–755.
- Gordon, R. A. (1996). Impact of ingratiation on judgments and evaluations: a meta-analytic investigation. *Journal of Personality and Social Psychology*, 71, 54–70.
- Gray, D. L., Anderman, E. M., & O'Connell, A. A. (2011). Associations of teacher credibility and teacher affinity with learning outcomes in health classrooms. *Social Psychology of Education*, 14, 185–208.
- Gustafsson, J.-E., Ehren, M. C. M., Conyngham, G., McNamara, G., Altrichter, H., & OHara, J. (2015). From inspection to quality: ways in which school inspection influences change in schools. *Studies in Educational Evaluation*, 47, 47–57. <http://dx.doi.org/10.1016/j.stueduc.2015.07.002>.
- Hattie, J. (2009). *Visible learning. A synthesis of over 800 meta-analyses relating to achievement*. New York, NY: Routledge.
- Ho, E. S. C. (2005). Effect of school decentralization and school climate on student mathematics performance: the case of Hong Kong. *Educational Research for Policy and Practice*, 4, 47–64.
- Komp, L. B. (1989). *Teacher self-concept and evaluation resistance. Dissertation abstracts international*, Vol. 50, 1508 6-A.
- Krueger, J., Ham, J. J., & Linford, K. M. (1996). Perceptions of behavioral consistency: are people aware of the actor–observer effect? *Psychological Science*, 7, 259–264.
- Landes, M., & Steiner, E. (2013). *Psychologie der Wirtschaft. (Psychology of economy)*. Wiesbaden: Springer VS Verlag.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods*, 3rd ed. Thousand Oaks, CA: SAGE.
- Regan, D. T., & Totten, J. (1975). Empathy and attribution: turning observers into actors. *Journal of Personality and Social Psychology*, 32, 850–856.
- Robertson, J. (2006). If you know our names it helps!: students perceptions about good teaching. *Qualitative Inquiry*, 12, 756–768.
- Romero-Canyas, R., Downey, G., Reddy, K. S., Rodriguez, S., Cavanaugh, T. J., & Pelayo, R. (2010). Paying to belong: when does rejection trigger ingratiation? *Journal of Personality and Social Psychology*, 99, 802–823.
- Schraw, G., Crippen, K. J., & Hartley, K. (2006). Promoting self-regulation in science education: metacognition as part of a broader perspective on learning. *Research in Science Education*, 36, 111–139.
- Shute, V. J. (2008). Focus on formative feedback. *Review of Educational Research*, 78, 153–189.
- Smith, A. F. R., & Fortunato, V. J. (2008). Factors influencing employee intentions to provide honest upward feedback ratings. *Journal of Business and Psychology*, 22, 191–207.
- Steins, G., Haep, A., & Wittrock, K. (2015). Technology of the self and classroom management—a systematic approach for teacher students. *Creative Education*, 6, 2090–2104. <http://dx.doi.org/10.4236/ce.2015.619213>.
- Tenney, E. R., Small, J. E., Kondrad, R. L., Jaswal, V. K., & Spellman, B. A. (2011). Accuracy, confidence, and calibration: how young children and adults assess credibility. *Developmental Psychology*, 47, 1065–1077.
- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. *Advances in Experimental Social Psychology*, 21, 181–227.
- Van Laar, J. A. (2007). Pragmatic inconsistency and credibility. *Argumentation*, 21, 317–334.
- Vonk, R. (2002). Self-serving interpretations of flattery: why ingratiation works. *Journal of Personality and Social Psychology*, 82, 515–526.
- Troyer, M. E., 1941/1942. Self-evaluation in teacher education. *Journal of Educational Research*, 35, 528–543.
- Weinstein, L., Laverghetta, A. V., Geiger, J. F., Peterson, S. A., & Fuson, S. (2008). Student perceptions of good teaching from elementary to graduate school. *Psychology and Education: An Interdisciplinary Journal*, 45, 16–20.