Obligatory coaching in the context of the model project "Talent Schools": a means for educational equity and improvement of achievement outcomes?

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Abstract

Purpose – In the present study, we assessed how school improvement consultants, as part of a six-year model project conducted in North Rhine-Westphalia, Germany, were perceived by school leaders and how they defined their role(s), tasks and working methods as external consultants at the beginning of the project.

Design/methodology/approach – Our analyses are based on a mixed-methods approach, involving a standardized online survey of school leaders and 18 guideline-based interviews with school improvement consultants, which were conducted at the beginning of the model project. The interviews were analyzed using qualitative content analysis and typifying structuring of the interview material.

Findings – Our results based on the quantitative survey data showed that the school administrators generally rated the collaboration with the external consultants as not very positive. Furthermore, our qualitative findings showed that the school improvement consultants in the model project faced resistance to their coaching efforts, which may be attributed to the obligatory nature of their work on the project. In general, the consulting process appeared to be little differentiated according to the school principals' perceptions of the school needs, with the consultants mainly proceeding as they also do in other coaching processes.

Originality/value – This study contributes to our understanding of coaching in improvement activities among schools serving disadvantaged communities by offering insights into the role(s) and working methods of external school improvement consultants.

Keywords School improvement consultancy, Educational equity, Schools serving disadvantaged communities, Mandatory coaching, Organizational development, Achievement outcomes

Paper type Research paper

Introduction

In many countries, schools serving disadvantaged communities have for some time been actively engaging in school and curriculum improvement in order to enhance learning

performances and equity in education. In the German context, a growing number of schools are willing to accept the help of external coaches in their school improvement efforts (Dedering *et al.*, 2013, p. 13). Hence, school improvement consultancy, generally being anchored on a conceptual level in the form of steering groups rather than concrete lesson improvement in Germany, becomes increasingly important for schools in socially marginalized contexts. However, findings from international researchers show that school improvement consulting appears to be especially beneficial if combined with school-wide strategies of working in professional learning communities that allow for a broad impact on holistic school improvement (Coburn and Russell, 2008; Preast and Burns, 2019; Stoll *et al.*, 2006).

While most research on school improvement strategies and equity-based consulting processes in schools facing challenging circumstances has been carried out in the Anglophone context, notably the United States (e.g. Klar *et al.*, 2019; Lochmiller, 2018; Mangin and Dunsmore, 2015), few studies have thus far dealt with these processes in Germany. Both the issue of inequitable educational opportunities in the German school system and its particular relevance in schools serving disadvantaged communities have been the focus of public and educational policy in Germany for several years now. However, researchers have only recently begun to systematically study the specific conditions under which such schools in socially marginalized contexts can improve. As a consequence, there is scarce knowledge on specific school improvement activities and coaching processes that may ultimately enhance student learning and achievement in such locations. In addition, although some effort has been made to design and implement strategies and interventions in order to systematically promote school improvement in marginalized contexts (e.g. "Potenziale entwickeln – Schulen stärken" ["Developing Potential – Strengthening Schools"], "23+ starke Schulen" ["23+ Strong Schools"], "Bonus-Programm" [Bonus Program]), these are limited in number and transferability of findings is often limited due to varying structural preconditions and the small number of cases. Furthermore, the potential benefits to school improvement processes and the limitations of external consulting regarding school improvement strategies remain largely unknown.

In order to overcome these shortcomings, the purpose of our study was to deal with the potential benefits, limitations and effectiveness of external school improvement consultancy with respect to the potential of promoting educational equity in schools serving disadvantaged communities. In doing so, we relied on data assessed within the context of a model project called "Talent Schools," which is currently being conducted in the federal state of North Rhine-Westphalia. We aimed to answer the following research questions: How are consulting practices related to school improvement perceived by school leaders? What role(s) do the consultants occupy within school improvement activities in the context of the model project? Which strategies and which working steps result from this understanding of roles? The overall question asked: In what ways are these understandings and procedures seen as beneficial for fostering educational equity? By examining in what ways school improvement consultants see themselves as "change agents," actively encouraging schools to enhance student learning and equity in education, we wish to strengthen our understanding of coaching in improvement activities among schools serving disadvantaged communities. For this purpose, we proceed as follows: (1) We discuss the theoretical background of our contribution, (2) we set out how the school trial Talent Schools is designed, (3) we outline our research questions and research design and (4) we present our empirical results and findings.

Theoretical background
Regional space as a dimension of educational inequality
In addition to individual and institutional determinants mutually influencing educational inequality in a complex way, the dimension of regional space has recently come into broader scientific focus. Spatial conditions affect not only the milieus of the origin of children but also

the milieus of the individual schools they attend. From the perspective of urban development, neighborhoods, districts and city quarters form the basis of educational processes (Coelen *et al.*, 2019). Depending on how the urban space is structured, especially in terms of the quality of the educational infrastructure, it can either enhance or restrict individual educational opportunities (Nonnenmacher, 2015, pp. 138–139). Small-scale statistical analyses have demonstrated that in urban areas, a family's address, ethnic background and income are the best predictors of a child's health status and educational opportunities (El-Mafaalani and Strohmeier, 2015, p. 29). These findings impressively show that – besides individual problem situations – the regional space in which children and adolescents grow up is highly predictive of their educational success.

In the last decades, there has been a growing interest in schools serving disadvantaged communities, both in public debate and scientific discourse (Muijs *et al.*, 2004). These schools are generally located in socially segregated, marginalized neighborhoods that are characterized, among other things, by an above-average proportion of welfare recipients, an above-average unemployment rate, low educational qualifications, a high crime rate, a high risk of poverty and low social mobility among residents in the neighborhood (Friedrichs and Triemer, 2008, pp. 9–15). The "spatialization of social inequality" (Fölker *et al.*, 2015, p. 9), as encountered in socially disadvantaged neighborhoods, is considered to be the result of socioeconomic polarization or segregation processes, which disproportionately affect individuals with a migration background and/or low educational qualifications, as well as their children. It should be emphasized that the above-mentioned categories often overlap in an intersectional manner in disadvantaged neighborhoods, so that it is possible to speak of an accumulation of "risk factors", especially with regard to the conditions under which children grow up. Correspondingly, schools serving disadvantaged communities are further characterized by a high proportion of socially disadvantaged students with and without a migration background.

Recent national and international school performance studies have shown that it is precisely these students who are or will be disadvantaged in their educational success, relative to children from more privileged social backgrounds (Reiss *et al.*, 2019). For example, students from low-resource families tend to achieve less well in school and often end their school careers with lower educational qualifications. The school system plays a decisive role in this context as it contributes to the reproduction of social inequality. The importance of schools in marginalized contexts for educational biographies is disproportionately higher than in privileged locations since it can be assumed that families have fewer support structures that are relevant for schooling, and the social space may harbor further restrictions. Although schools can replicate inequitable structures in wider society, they also constitute their own micro-environments through specific internal and external conditions (Simon and Downes, 2020), which may contribute to preventing educational inequality. Thus, schools in socially disadvantaged areas have the potential to offer a high-quality sphere for learning and experience as a counterpart to the socially marginalized neighborhoods in which they are located. This opens up chances for students' further educational biography through providing good educational opportunities and recognition.

Reproduction of social inequality within schools
With schools representing a key factor of socio-cultural life that can promote educational opportunities, especially in disadvantaged locations, researchers have taken a closer look at how processes located at the micro-level of schools may enhance or impede educational equity. Based on the concept of educational equity as the recognition of justice (Stojanov, 2013, pp. 63–64), social conditions and social relationships at school can be conducive to education if they provide certain forms of recognition. In this sense, micro-processes of teaching can be thought of as "spaces of opportunity". Within these spaces, students should ideally experience relationships of recognition in their social interactions with teachers and

other students, which are characterized by empathy, moral respect and appreciation (Stojanov, 2010, 2013). Various studies show, however, that teachers in schools serving disadvantaged communities often view their students more from a deficit-oriented than resource-oriented perspective (Bremm, 2020; Budde and Rißler, 2017; Drucks and Bremm, 2020; Rojo, 2010). For instance, Wiezorek and Pardo-Puhlmann (2013) demonstrated in their reconstructive study on pedagogical notions of normality that poverty, low access to education and ineffective parenting skills were characteristics ascribed simultaneously to the growing-up conditions of children and adolescents of certain socially disadvantaged groups: "The triad of poverty, lack of education, and inability to raise children obviously represents a diffuse social category for a subsumption-logical, symbolic classification of specific family milieus" (Wiezorek and Pardo-Puhlmann, 2013, p. 212, translated from German).

Against this background, it can be assumed that teachers at schools serving disadvantaged communities attach greater importance to the school's educational mission in order to counter social disadvantage or to meet basic psychological needs for bonding, security and order (Borg-Laufs and Dittrich, 2010; Racherbäumer, 2017). They may consider some of the latter as not being met by children in socially disadvantaged neighborhoods. However, it must be critically noted that this behavior implies a logic, according to which a lack of educational success is causally attributed to milieu membership and, as a consequence, to the individual. Such a logic ultimately ignores the mission of schools as defined in school law – namely, to support all children in their educational processes, regardless of their sociocultural background. At the same time, a static understanding of giftedness, as well as attributing academic success to family support, leads teachers to construct themselves as having little self-efficacy, keeping them from addressing school improvement processes (Bremm, 2020; Racherbäumer *et al.*, forthcoming). Nevertheless, it is precisely the emphasis on students' deficits as, for example, embodied by the resource etiquette dilemma (Wocken, 2014), that opens up possibilities for an appropriately targeted allocation of resources provided by educational policy for schools in disadvantaged locations (Drucks and Bremm, 2020). Regarding the role of the teacher–student relationship in reproducing social inequality, further studies have demonstrated a tendency for social–structural categories (class, ethnicity and gender) rather to lead to a misjudgment of teachers when assessing individual student performance (Helsper and Hummrich, 2009, p. 615). Applying these empirical findings practically to school development consulting, a more crucial focus of school development consulting must be on analyzing and reflecting on instructional practices.

Project context
School improvement consulting in Germany
Various coaching approaches, models and programs that turned out to be effective have been forwarded in the Anglophone context, also on the level of individual schools in the form of design-based school improvement (Lochmiller, 2018, pp. 144–146; Mintrop, 2016). In comparison, there has been little research on the practice and impact of externally supported school improvement processes in Germany (Dedering, 2017), except some local studies (Goecke, 2018; van Ackeren *et al.*, 2021). However, school improvement counseling has been gaining importance in recent years for the development of individual schools as well as for steering questions in the German education system in general. In Germany, school improvement consulting does not have a long tradition, which can be explained by the traditional organization of the German school system as well as changes in this organizational structure during the last two decades.

The evolution of school development and steering approaches in Germany can be traced across three phases (Altrichter and Heinrich, 2007). In the early 1990s, a "conditional programming" regime (Luhmann, 1970) of input controls through centralized guidelines was

placed in contrast with an increase in individual school power as a result of locally organized school programs and funding initiatives to promote quality assurance. After a period of transition, Germany's "PISA shock" moment was countered with a program of restoration, whereby, for example, education strategy reverted to the central level in the form of binding standards or core curriculum requirements. According to Berkemeyer and Bos (2015), a new phase of school improvement is emerging as a result of increased connectedness between stakeholders and schools in the system of multilevel governance, as well as the shift that this has precipitated toward a more partnership-led approach to structures at the school level. The support provided by school improvement counseling, which is intended to encourage schools to improve through advice and insight, can also be seen as part of this partnership-based steering strategy.

In Germany, social regulation can be considered relatively weak. Although most federal states have established their own quality assurance systems, few consequences are incurred in cases of poor performance during school inspections or central testing. Poor results do not lead to school closures, or even to a change in staffing, because civil servants tend to enjoy life-long tenure. Furthermore, teaching staff are granted a high degree of autonomy when it comes to how they approach their pedagogical responsibilities.

> Pedagogical responsibility – also termed pedagogical freedom or methodological freedom – includes the right of teachers to teach lessons on their own authority within the framework of the applicable legal provisions. The teacher is guaranteed this freedom in the interests of the pupils, as pupil-oriented teaching can only take place if the teacher has an adequate amount of freedom in selecting the content of lessons, teaching methods and assessment. (KMK, 2019, p. 50)

Nevertheless, the coupling of the development of the overall system with that of the individual school and its personnel is complex since German schools and the individual actors within them can decide independently how to deal with external interventions. The idea of managing development processes still encounters a bureaucratic administrative context in which an institutional culture has developed over a long period of time where the interpretive sovereignty over school quality lies with the pedagogical professionals (Klein and Bremm, 2020).

Under these conditions German schools can be understood as self-referential systems that define their identity, autonomy and functionality independently from the outside world and tend to be resistant to change (Holtappels, 2019). In order to initiate change processes externally (e.g. in a statewide school trial), it is seen as important to acquire knowledge of the organizational operating principles and the development strategies of schools, their employees and their leaders. In the context of school improvement in Germany, there has been a focus on organizational action in the sense of optimizing managerial strategies. Such strategies include school leadership actions, communicative processes, the development of clear goals and school networking with external cooperation partners. Therefore, the dominant coaching approaches in Germany focus on strategies of systemic organizational consulting. New approaches, such as design-based research strategies, have only recently been introduced into the discourse (Bremm, 2020), where the transferability of the approaches to the German context clearly shows context-related challenges (Mintrop and Bremm, 2021, forthcoming).

The model project Talent Schools: aims, scope and the role of school improvement consultants

Aims and scope of the model project. In 2019, a model project entitled Talent Schools was initiated by the federal states' Ministry for School and Education in North Rhine-Westphalia, Germany. This project aims to foster school improvement in schools serving disadvantaged communities over a period of six years (2019–2025). The overall objective is to achieve greater equity in education through the provision of additional resources and the implementation of

instructional concepts and strategies designed to enhance students' performance, as well as linguistic and social competence. In general, such model projects are carried out in a limited number of selected schools and in a limited time period. They generally serve as a means to prepare educational policy decisions and to test new approaches for their feasibility that may then be transferred to other locations (Wunsch, 2019). Being anchored by law in the state school laws, model projects thus offer the opportunity to test new organizational forms or teaching methods in order to further develop the regular school system (Winands, 2018). In the federal state of North-Rhine-Westphalia, they must be approved by the federal Ministry for School and Education.

Within the framework of the project described here, a comparably high number of schools ($N = 60$; 45 secondary and 15 vocational schools) from each of the five governmental districts of North Rhine-Westphalia were selected to take part in the trial. Schools had to apply for the trial with a letter of intent declaring the school's willingness for school improvement and the envisaged activities to reach that goal. All types of secondary schools (Hauptschule, Realschule, Sekundarschule, Gymnasium, Gesamtschule) as well as vocational schools could apply. Based on their letters of intent, the schools were selected by a jury of experts. Only schools that were confronted with specific challenges due to their geographic location and a correspondingly diverse student body were chosen for the school trial.

On the one hand, the (ongoing) model project set a specific framework related to educational equity, while on the other, it provided a set of additional resources to the selected schools. These include additional administrative and teaching staff, a position for school social work to expand counseling and parental work and an additional training budget. On the process level, the selected schools receive close support through obligatory school improvement consulting and need to give their consent to be counseled throughout the project term. This can be seen as quite remarkable, as school improvement consultancy in the German-speaking context is usually done on a voluntary basis.

The Ministry for School and Education provides clear thematic guidelines, which can be categorized under the following topics: language-sensitive teaching, data-driven instructional development and school improvement, extension of external networks (further) development of leadership skills of the school principals and members of the school management, and appreciative teacher–student–relationships. On a structural level, selected schools are to develop or expand a special professional profile (STEM or cultural education). Part of the project is also scientific evaluation, comprising the monitoring of the school improvement processes along with the above-mentioned dimensions as well as the continuous reflection of findings back to the schools.

The role of school improvement consulting in the model project. Each of the 60 schools being part of the model project received extensive obligatory support services through school improvement consulting in the first project year. Conceptually, the project followed an approach of consulting that relied on the expertise of people who were part of the school system themselves – that is, who had worked or were still working as teachers or school administrators. The combination of teams from inside and outside the school system (e.g. experienced teachers and academics) in the form of an "integrative approach," described by Dedering (2017) as particularly effective especially for schools serving disadvantaged communities, was thus not pursued in the context of the model project Talent Schools. Instead, teachers employed by the state government from other schools were relieved of their teaching duties with five hours a week each and made available to the participating schools as school improvement consultants.

All such consultants had undergone prior training as school improvement consultants and, in addition, received special additional training to prepare them for work in disadvantaged schools. In terms of content, the training focused primarily on topics of organizational development that were often borrowed and adapted from the context of

organizational management. In the additional training for the school trial, which lasted two days, topics related to quality characteristics, school improvement and classroom management in disadvantaged schools were addressed. The training was offered by the "Quality and Support Agency North Rhine-Westphalia, State Institute for Schools" ("QUA-LiS NRW, Qualitäts-und UnterstützungsAgentur – Landesinstitut für Schule") and was based on a curriculum aiming to support systemic development processes in schools through methods of systemic organizational consulting and organizational development.

As described above, the external consultation is obligatory within the framework of the school trial; the schools therefore have no choice as to whether they want to make use of the consultation or not. In view of the current state of research, this is to be seen as an extremely unfavorable prerequisite for successful counseling, which empirically proves to be helpful above all when it has a voluntary character (Dedering *et al.*, 2013). This conception can be explained by the central role of school improvement counseling as a processual control and steering instrument of policy and administration in the context of the "Talent Schools"-trial since in Germany, unlike in the Anglophone context, students' output measures (e.g. test scores) play a subordinate role and there is no high-stakes accountability system established.

Research questions and research design

Research questions

Based on the theoretical and empirical findings outlined above, we aim to answer the following research questions:

(1) How are consulting practices related to school improvement perceived by school leaders?

(2) What role(s) do the consultants occupy within school improvement activities in the context of the school trial?

(3) Which strategies and which working steps result from this understanding of roles?

By examining in what ways school improvement consultants see themselves as "change agents," actively encouraging schools to enhance student learning and equity in education, we wish to strengthen our understanding of coaching in improvement activities among schools serving disadvantaged communities.

Research design

In order to capture school improvement activities comprehensively and from different perspectives, the scientific evaluation is based on a mixed-methods design that includes both quantitative online surveys of school representatives and qualitative interviews with school developers.

In the first step, descriptive results from the standardized online survey of school leaders capturing how school representatives evaluate the experienced school development consultation are presented. In the second step, in-depth qualitative interviews with the school development consultants are used to investigate in what ways their understanding of their role and their practices can explain the quantitative results. By complementing the quantitative perspective of the school representatives with the qualitative perspective of the school development consultants, it is intended to arrive at a more complex description of the phenomenon (school improvement in socially disadvantaged contexts in Germany).

Standardized online survey of school leaders

The online survey was conducted among the members of the school management of the first cohort of schools ($N = 35$; 29 secondary schools and six vocational schools) in the school year

2019/2020 between February and April 2020. It was organized and carried out by the scientific evaluation team of the project, consisting of researchers in the field of educational science. Since the survey had already been approved as an integral part of the model project, there was no need to obtain an explicit consent from the federal Ministry. Prior to the launch of the survey, the schools were informed about the content and scope of the survey through an information leaflet. The school principals were informed that (1) participation in the survey was voluntary, (2) the answers were processed anonymously, (3) the survey could be interrupted at any time, (4) individual questions could remain unanswered and (5) non-participation would not result in any disadvantage. Additionally, a personalized survey link was sent to the schools via email. The school administrators willing to take part were given free choice of when to complete the questionnaire, whereby an overall time limit for participation was set. Before taking part, the respondents had to explicitly provide their consent. The survey took about 45 min and captured the initial conditions at the participating schools with regard to school and teaching conditions, including aims and strategies in the context of the model project, school culture, cooperation and collaboration of the teaching staff, data use and demographic information of the respondents. A total of $N = 129$ members of the school management from 34 schools (five vocational schools, 29 secondary schools) participated in the survey.

Qualitative interviews with school improvement consultants
In the context of the accompanying scientific research, 18 guideline-based interviews with school improvement consultants have been carried out to date. Prior to conducting interviews, we obtained voluntary informed consent from participants and assured them of the use of pseudonyms. Based on qualitative content analysis (Mayring, 2003), we structured the interview material according to relevant aspects related to the professional understanding and role of the school improvement consultants. The interview material was analyzed by means of *typifying structuring* (Mayring, 2003, p. 58). To this end, we structured the material by deductively deriving relevant categories from our interview guide, such as the understanding of the tasks and responsibilities as a school improvement consultant, especially as one working in the model project Talent Schools and the description of the specific school and school improvement activities. In a second step, we inductively derived subcodes from the relevant categories.

Results
Results from the standardized online survey
In the following, we illustrate in a first step how the schools participating in the model project Talent Schools evaluated their cooperation with the associated school improvement consultants at the beginning of the project. To this end, descriptive results from the standardized online survey of the members of the school management will be presented. It has to be noted that at the time of the survey, the coaches were active in the schools for an average of 55 min per week (SD = 72 min), with a minimum operating time of five minutes and a maximum time of six hours, as indicated by the respective school leaders.

Each school's member of the leadership team was asked to rate three items on the cooperation with the responsible school improvement consultants (response scale ranging from 1 = does not apply at all to 5 = applies completely). The single items were (1) "The school improvement consultants support me as part of the school management in the development of school improvement goals," (2) "The school improvement consultants advise us competently with regard to the targeted use of data (learning status, school statistics) for school improvement and instructional development" and (3) "Working with the school improvement consultants is more of a burden than a relief."

Below, the distribution of ratings concerning the cooperation with school improvement consultants is graphically depicted via boxplots. Figure 1 shows the distributions separately for vocational and secondary schools. The plots display the median (bold mid-line), interquartile range (shaded and white boxes), range (whiskers) and outliers (dots).

The first plot is relatively short when looking at the vocational schools, with the middle 50% of scores lying between 2.0 and 3.0 (median = 3.0). In contrast, the data referring to the secondary schools were less compact, though also showing a median of 3.0. Across school types, both items 2 and 3 showed median ratings within the lower range of the response scale (2.0). However, the data were far more scattered among secondary schools when looking at the second item, indicating a greater heterogeneity in evaluations at this type of school that also extended more into the higher range of the response scale. This indicates that the subsample from vocational schools was generally little satisfied with the advisory actions of the school improvements, while some respondents from the secondary schools also gave very positive evaluations.

Regarding the plot belonging to the third item, which is poled in a way that higher scores represent negative evaluations, the data were more widely distributed within the upper half of the scale regarding vocational schools. Thus, at least some respondents at this school type perceived the school improvement consultants more as a burden than a relief, with values being slightly more extreme than among the respondents from secondary schools.

Taken together, these findings illustrate that the school administrators from the vocational schools rated the cooperation with school improvement consultants less positive than those from the secondary schools. This is particularly evident when looking
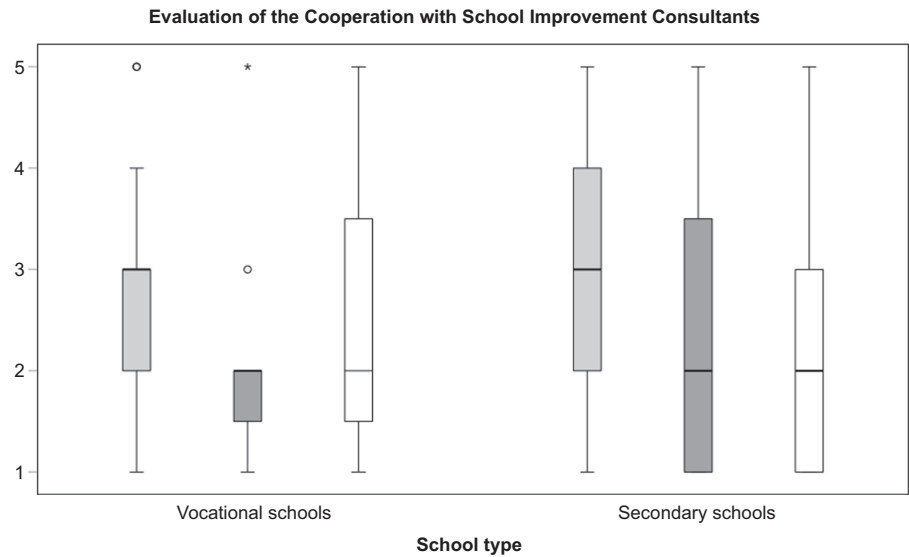

Evaluation of the Cooperation with School Improvement Consultants

Figure 1.
Boxplot illustrating school leaders' evaluation of the cooperation with school improvement consultants by school type (pairwise deletion of cases, N = 15–57)

Note(s): Left plot: "The school improvement consultants support me as part of the school management in the development of school improvement goals." Middle plot: "The school improvement consultants advise us competently with regard to the targeted use of data (learning status, school statistics) for school improvement and instructional development." Right plot: "Working with the school improvement consultants is more of a burden than a relief." Response scale: 1 = does not apply at all; 5 = applies completely

at the third item, where higher values on the response scale indicated that respondents perceived the cooperation with the school improvement consultants more as a burden than as a relief.

Further analyses were conducted on the relationship between school leaders' ratings of the cooperation with external consultants and factors related to school climate and school improvement. The latter were assessed from the pedagogical staff's perspective and aggregated on the school level for each school. Non-parametric Spearman correlation analyses revealed some statistically significant correlations between school leaders' ratings of the school improvement consultancy and school-level indicators of school improvement (different leadership practices, staff collegiality and sense of mission). Interestingly, these were all negative and of weak to moderate size, indicating that the more positive the pedagogical staff's assessments of school improvement, the more negatively the members of the school management evaluated their cooperation with external school improvement consultants. This may mean that a higher initial level of school improvement is associated with more negative attitudes toward external school improvement consultants, including a higher reluctance to integrate them in the school improvement process.

To examine these relationships more closely, a regression-based approach was employed. Due to the hierarchical structure of the data with individuals nested within schools, we applied multilevel regression models with random intercepts (Snijders and Bosker, 2012). In these models, school leaders' ratings of cooperation with external consultants were regressed on the different aspects of school improvement outlined above. We additionally controlled for school type (0 = secondary school, 1 = vocational school), respondents' function in their school (school principal: 0 = no, 1 = yes) and years of experience in the respective school. Due to the limited sample size and associated reduced statistical power, we tested each school improvement factor separately. Table A1 in the Annex displays the results of the multilevel regression models.

The results show that only one of the correlates remained statistically significant in the multivariate regression models after controlling for school type, respondents' function and years of experience in the respective school. The aggregated school-level measure of staff collegiality and sense of mission was negatively associated with school leaders' ratings of cooperation with external school improvement consultants ($b = -0.290$, $p = 0.03$). More positive ratings of the school climate as perceived by the pedagogical staff (with staff members maintaining close professional relationships with each other, supporting each other, treating each other with respect and feeling responsible for school improvement) were related to less positive views of members of the school management concerning the cooperation with the external school improvement consultants. Thus, a relatively high starting position regarding the school improvement process – at least concerning the aspect of staff collegiality and sense of mission – appears to coincide with more negative ratings of the cooperation with the external consultants, independently of school type, function and years working in the particular school. If indeed a higher stage of initial capacity building among the schools is related to greater resistance to the external consultants, a closer look at how the external consultants understand their profession as well as their role and tasks in the model project in the first place seems warranted. More specifically, the quantitative results may be indicative of a less than optimal fit between the schools' needs and expectations and the actual work of the consultants at the schools, at least at the beginning of the model project.

In a next step, we therefore analyze how the external consultants understood their profession, role and tasks in the model project while relating these perceptions to the defined objectives of the model project including its main goal to foster educational equity. This may shed more light on potential discrepancies between the project's overall framework, schools' expectations and the actual work of the external consultants.

Results from the qualitative interviews with school improvement consultants
In the following, we present the interpretive results of the interviews with the school development consultants along the inductively–deductively identified categories.

Understanding of the profession and of their role. In order to assess and understand what role(s) the external coaches occupied within school improvement activities in the context of the model project, it is necessary to look at how the consultants framed the conditions of their work in the first place. Even if the school improvement consultants experienced legitimacy of their activities by being an integral, structural part of the model project, our findings show that many of them did not feel authorized in the sense of being accepted and appreciated by the schools they advised. Most of the consultants had been facing resistance to their coaching efforts, especially at the beginning of their work. This may, to a significant extent, be attributed to the obligatory nature of their counseling activity in the context of the model project. Indeed, some school improvement consultants expressed in the interviews that the schools apparently perceived them to be a supervisory body of the state government, comparable to the school inspection.

Many of the school improvement consultants argued furthermore that the schools should have been willing to be advised in order to be able to initiate and cooperatively implement school improvement processes. Some school consultants illustrated the coercive nature of their work through metaphors and figurative expressions such as "forced marriage" (Interview 14, 2020_06_10, line 376), "compulsorily coupling" (Interview 5, 2020_05_08, line 202), "constrained voluntariness for school improvement consultancy" (Interview 15, 2020_06_17, line 187), or, as another coach put it, "We are prescribed. . . . Prescribed, like a drug." (Interview 8, 2020_05_18, lines 292–294).

Generally, the consultants met the challenge of the perceived lack of trust by emphasizing their role as coaches, who would moderate and structure existing processes through systemic feedback, a role that was described as a "critical friend" (Interview 2, 2020_04_30, line 106). Most of the school improvement consultants were convinced that, in contrast to the schools themselves, they would not be the experts for the concrete school improvement process but instead "helpers for self-help":

> So, when it comes to really content-related focal points on the topic of lesson development or something like that, then we are not experts. . . . In the end, we also provide the experts. If we can't do that. Yes, and actually, I always see us as helpers for self-help. So, we do not say, this is the way now. It can't be that way, because it's their school that they have to develop. (Interview 17, 2020_06_23, lines 116–124).

For this reason, the school improvement consultants generally refused to advise the schools in an active or directive manner during the improvement process. For example, one coach refused to act as an "extreme egghead" (Interview 8, 2020_05_18, line 28) and wished instead "to look together with the schools at their situation, and to really make offers and think them through together. Simply to provide the schools with the view from the outside" (Interview 8, 2020_05_18, lines 29–30).

Similar to this, many of the school improvement consultants emphasized the importance of "an outside view on the process" (Interview 5, 2020_05_08, line 110), through which it would be possible to support the schools setting up steering groups or to help them clarify the roles of different school actors. As a consequence, in almost all interviews, the coaches expressed the need for a fundamental (re)structuring of processes in order to enable schools to begin effective school improvement activities, such as building up new teaching structures or a different kind of learning and working together. In that respect, some of the coaches emphasized the importance of consolidating processes that would otherwise be too fast and superficial. One coach expressed this as "securing" the processes (Interview 2, 2020_04_30, line 311), another regarding the "sustainability" of processes as ensuring that they really

work, before they were "finally anchored" (Interview 12, 2020_06_03, lines 212–214). Yet another coach formulated this task as follows:

> Our school is very, I think, it is very like pawing its hooves, it works on very different levels. There are a lot of working groups, a lot of active persons. Yes, my colleague has sometimes, if I may say so, the task of a brakeman. According to the motto, slowly, one by one, not to let too much energy go to waste now and not to be able to do it afterwards. To install really realistic, scheduled structures there, with the help of the steering group. That's our task at the moment. (Interview 12, 2020_06_03, lines 69–73).

In the vast majority of interviews, instructional development did not seem to fit their professional profile and, especially, not their role as a coach. For example, one coach, being a designated expert in natural science classes, did not consider instructional development at the advised school with an explicit focus on natural sciences as their task. Instead, they counted instructional development as part of the scope of the additional instructional coaches, while the school improvement consultants – as well as the schools – should clearly distinguish between process support and instructional development:

> So, that was now perhaps . . . one thing that has come to our attention, that we've said, "Ok, we have to make sure that we direct them to this matter, that's to say to this process. And less to the lesson contents." So, I remember one sentence of a colleague . . . "Then tell us how that works." And that is just not, we don't go and say, "So, with student x and with the disadvantaged you do it this way and that way." But we are looking at the process of this group. (Interview 14, 2020_06_10, lines 170–176)

Matters related to supporting teachers in establishing positive teacher–student interactions were obviously not seen as an area of responsibility.

Against this background, we analyze in the next step the concrete strategies and working methods of the school improvement consultants resulting from this specific situation and understanding of roles.

Procedures and strategies for school improvement consultancy in the model project talent schools. It can be observed that the external coaches who were part of the model project oriented their work strongly to what they perceived to be their usual task and role in school processes on a more general level:

> Yes, the area of responsibility is actually a classic school improvement assignment, I think, and a very classic field. . . . So, the school decides, but we choose the methods, and, yes, control the process. This is actually normal as in any other [processes]. (Interview 13, 2020_06_04, lines 51–57).

Regarding the support of school improvement processes they offered, the consultants obviously brought their usual choice of tools and methods to the schools, or, in their own words, their "package of measures" (Interview 1, 2020_04_28, line 105), their "method suitcase" (Interview 2, 2020_04_30, line 102) or "offer suitcase" (Interview 11, 2020_05_25, line 61), respectively.

Even when asked explicitly how the coaches worked at the schools in the model project and if they faced special challenges in the consulting process, there were very few concrete answers concerning the structural situation of the schools in socially marginalized areas, but a lot more in regard to the process level of schools in general. One exception is the statement that most of the schools had already been far advanced in their improvement processes. One coach put this as follows:

> So we have entered into an ongoing process, so to speak. That means that the contact with the schools was established when the project Talent Schools had already started. So it wasn't accompanied by a school improvement consultancy from the beginning. And when it came to contact from our side, that was last year just before the summer vacations, processes and planning were already underway. (Interview 14, 2020_06_10, lines 71–75).

The external school improvement consultants saw themselves as "change agents," actively encouraging school processes that, according to their expectations, had not yet been established conceptually in the schools. However, most of the schools had already initiated concrete school improvement processes before entering the project, including the definition of concrete development goals. Furthermore, the identification and initiation of work on central development needs was, in most cases, carried out in advance by the school actors themselves. Apparently, the question of a possible loss of control and what power lies with the consultants takes on particular significance here. Analyzing this question in more depth will be a future task and cannot be elaborated in detail within the scope of this paper. In addition, the question of how the prior training received by the school improvement consultants translates into specific consulting measures in the schools will be part of further scientific analysis.

Discussion

Against the backdrop of the overarching framework of fostering educational equity through the model project Talent Schools, we analyzed (1) how school leaders perceived their collaboration with the external school improvement consultants in organizing and implementing school improvement strategies and (2) if and how the involved school improvement consultants aimed for implementing ideas and concepts related to educational equity into existing school improvement objectives.

The results based on the quantitative survey data showed that the school administrators generally rated the collaboration with the external consultants as not very positive, especially with regard to the use of data for school improvement and instructional development. This was more so the case among respondents at vocational schools. Furthermore, some school administrators, especially at vocational schools, perceived the consultants more as a burden than a relief. Finally, we found some evidence that schools with greater staff collegiality and sense of mission held less positive views of the external school improvement consultants.

One central finding from the qualitative analyses was that the external school improvement consultants did not fundamentally adapt their work to the specific situation and needs of the schools. Although the model project's main goal was to foster educational equity at schools in challenging locations, we did not find evidence for the external consultants dealing with this topic when working with the schools. Rather than following a context-sensitive approach (Mintrop, 2016), the school improvement consultants showed almost no special orientation toward the specific situation of the participating schools. Instead, they emphasized their role as coaches, who would moderate and structure existing processes through systemic feedback (Dedering *et al.*, 2013, pp. 28–33; Tajik, 2008). Second, our findings demonstrated that the external consultants faced considerable resistance when entering the specific school contexts, in most of which, school improvement processes were already underway. They often perceived themselves as outsiders, therefore being reluctant to enter the improvement process in more depth.

The finding that vocational schools rated their collaboration with the external consultants slightly less positive than secondary schools may be indicative of fundamentally different organizational structures and routines between these two school types. Vocational schools are divided into different subject areas and impart a vocational qualification in a differentiated teaching system, both in single- and double-qualification training courses (Schulministerium NRW, n.d.). With these schools generally being large and differentiated systems, they are strongly dependent on a high level of organization and capacity of planning. This may be associated, in turn, with a higher rejection of external efforts to drive school improvement at this very level, especially if the assigned coaches are not themselves from this type of system.

While we were able to empirically document that the external consultants faced considerable resistance from the schools, the origin of this resistance remains unclear and cannot be directly assessed from our data. Possible explanations include, for example, resistance to change in general, resistance to external professionals or resistance to being forced to have the coaching itself. Since all the school improvement consultants were fully trained teachers, some of whom were also active in the school service at the same time, a professional barrier due to different training as described by Thornberg (2014), for example, does not appear to be the cause of the tensions. Following international research that illustrates the variety of roles that external consultants can take on in school development processes (cf. Cameron, 2010; Wehbe, 2019), it can also be assumed that the school administrators expected advice through more technical, directly implementable communication of strategies.

How to better bring together the potentially differing expectations of the schools and especially the school principals on the one hand, and the strategies of the school improvement consultants on the other, will be a research matter that we will address in the further course of the project. Since work for external consultants in schools often starts with contact to the school leadership (Cameron, 2010), assessing interactions and negotiation processes between consultants and principals as well as the school leaders' views on the consulting process appears to be insightful. In this context, analyzing the dynamics and potential changes of roles in which people position and reposition themselves throughout the consulting process (Bronwyn and Harre, 1990) is also a matter of further research. It has to be noted that in our function as researchers, we do not have direct influence over the further course of the project, but we will record changes and adaptations in school improvement practices in the upcoming years.

In relation to the set objectives of the project, the consulting process appeared to be little differentiated according to the school principals' perceptions of the school needs and thus interchangeable with other consulting processes. In general terms, school improvement processes designed to strengthen educational participation and equity are complex undertakings that can hardly be addressed by simple logics of organizational development strategies. Reconstructive case studies also show that quantitative analyses which aim to identify developmental needs and processes have limited explanatory power to detect microprogressions and logics at the level of individual schools (Drucks and Bremm, 2020). Qualitative, multiperspective studies, however, can shed light on how and under which conditions quantitative effects emerge. For example, Collins (2009) states, "To understand social reproduction we have to consider multi-levels of social institutional structure as well as microanalytic communicative processes and cultural practices" (p. 35). Accordingly, school improvement consulting in this field places high demands on the actors concerned if they want to take into account the complexity of school reality outlined above.

Fostering educational justice in schools can profit from taking into account issues of social power and discrimination (Gomolla, 2016). This objection appears to be particularly significant against the backdrop of the (re-)production of social inequality in the classroom by which schools serving disadvantaged communities might be especially affected. In the case of school improvement in challenging locations, those concepts also come into view which name more concrete design-based approaches of school and teaching, such as scaffolding, adaptive learning or language-sensitive teaching (Bremm et al., 2017).

On a practical level, our findings show that the coaches worked differently from what has been reported from similar projects conducted in Germany – for example, the project "Developing Potential – Strengthening Schools" (Bremm, 2021). Instead of moving quickly into practical changes at the classroom level, the coaches in the model project "Talent Schools" intend to start slowly with the school improvement processes in order to be able to perpetuate them. Even if the overall aim is here, too, to improve the organizational quality of

the schools, one effect could possibly be that school actors experience the school improvement processes, which began with a lot of momentum, not so much as consolidated, but rather as slowed down by the coaches themselves. Approaches from other countries, such as the United States, offer compelling insights in strategies of effective school improvement consultancy. However, these approaches can't be translated to the German context one to one (see also Klein, 2016). Due to differing contextual conditions and differing traditions both regarding the educational system and the self-understanding of the coaches, it will be difficult to directly transfer more effective strategies from other settings to the German context. Against this background, it appears imperative to find effective coaching models especially for schools serving disadvantaged communities in Germany.

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Annex

	Model 1			Model 2			Model 3			Model 4		
	b	SE	p	b	SE	p	b	SE	p	b	SE	p
Fixed effects												
Individual level												
Intercept	4.29	(1.42)	0.01	4.82	(1.11)	0.00	5.35	(1.29)	0.00	11.64	(3.77)	0.00
School type: vocational	−0.55	(0.55)	0.32	−0.38	(0.54)	0.49	−0.39	(0.53)	0.47	−0.54	(0.51)	0.30
Function: School principal	0.03	(0.27)	0.90	0.10	(0.27)	0.72	0.07	(0.26)	0.79	0.10	(0.26)	0.69
Years of experience at school	0.02	(0.01)	0.17	0.02	(0.01)	0.15	0.02	(0.01)	0.19	0.02	(0.01)	0.22
School level												
Leadership: IS	−0.43	(0.43)	0.32									
Leadership: EDU				−0.65	(0.36)	0.08						
Leadership: SLWE							−0.74	(0.38)	0.06			
School climate: SCASM										−2.90*	(1.25)	0.03
Random effects												
Level 2 variance	0.87	0.37	0.02	0.79	0.34	0.02	0.80	0.33	0.02	0.74	0.31	0.018
Level 1 variance	0.79	0.19	0.00	0.78	0.18	0.00	0.77	0.18	0.00	0.77	0.18	0.000
AIC	216.360			214.512			213.855			209.995		
BIC	220.615			218.766			218.109			214.249		

Note(s): *$p < 0.05$. **$p < 0.01$. ***$p < 0.001$; Level 2 $N = 35$, Level 1 $N = 129$; IS = intellectual stimulation; EDU = exemplary data use; SLWE = safe learning and working environment; SCASM = staff collegiality and sense of mission

Table A1.
Multilevel random intercept model regressing ratings of cooperation with school improvement consultants on different aspects of school improvement