

QUALITÄTSKULTUR IN BERUFSBILDENDEN SCHULEN



Is there such a thing as school quality culture?

Q-KULT Working paper

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1 Introduction

When discussing the implementation of quality management practices in schools and in higher education, it is frequently claimed that while new systems, procedures and rules are implemented and much data and many reports are produced, these processes suffer from a lack of staff and student involvement and a lack of commitment. In short, the complaint is: instruments are in place, but there is a 'lack of quality culture'. Successful quality improvement practices seem to require both the technocratic side (i.e. tools and mechanisms to measure, evaluate, assure and enhance quality) and a quality conducive culture (European University Association, 2005, p. 18).

Just like a universal pattern, this insight seems to follow the experience of around a decade of quality management implementation in different education sectors as sure as night follows day. In European vocational education and training this insight is quite recent (Jonach, Gramlinger, & Hartl, 2012, p. 1093), while in European higher education it already emerged in the mid 2000s (Ehlers, 2009; European University Association, 2007; Harvey & Stensaker, 2008; Newton, 2000; Vidal, 2003) - apart from an earlier insight by Kells (1995). In the US schooling system, which was the first adopter of corporate total quality management in education, it appeared already by the end of the 1990ies. Detert, Schroeder, and Cudeck (2003, p. 307) aptly put it as follows: 'Following a decade of Total Quality Management (TQM) adoption by US corporations, a number of K-12 school administrators began championing the quality paradigm as a model for systemic school improvement in the late 1980s and early 1990s. [...] preliminary systematic research on these early implementation efforts suggests that QM programs are failing to achieve widespread acceptance and use by those at the core of schooling –teachers. One tentative explanation for the limited results to date has been that the existing "culture" of these schools, and that called for by QM, are inconsistent and that these inconsistencies are at the root of limited implementation.'.

Also Terhart (2013, p. 487) explains the more general problem of teacher resistance as grounded in cultural differences between teachers and administrators: 'The culture and convictions of educational administrators and reformers and the culture and conviction of teachers in classrooms and staffrooms really are miles apart'. So this insight should not come as a surprise because teacher resistance against change has not arisen with this 'new managerialism', but is a perennial phenomenon which has long been the subject of research and policy (see also Sarason, 1996; Terhart, 2013, p. 489). Thus, our starting point is not new, and we can draw upon experience from US schools, European higher education and most notably from organisational research which devoted more attention to this question than any other research.

The common belief that particular (organisational) cultures or aspects of culture may hinder or foster the implementation of quality management gains relevance only by at least two important underlying assumptions. One is that culture can be changed in such a way to facilitate the implementation of quality management. The other one is that quality management in schools has positive effects on school performance, e.g. in terms of student achievements. However, these assumptions are heavily contested and empirical evidence is scarce. Thus, to ground this work on a sound basis, both a comprehensive model of change that is able to explain how change can be implemented in highly institutionalised organisations dominated by professionals (Detert & Pollock, 2008) and unambiguous empirical evidence from impact studies of quality management (Sousa & Voss, 2002) would be needed; both goes beyond the scope of this paper. We content ourselves with exploring the relationship between school culture, quality management practices and performance (with less emphasis on the latter) and with the attempt to identify appropriate methods to diagnose school culture. Hence, this paper is organised around three guiding questions:

1. What do we know about the relation between school culture and quality management and how can this relation be modelled? This also includes questions such as: What are the basic models and main theories used to describe this relation? Is there such a thing as 'school quality culture' and if so, how is it defined?
2. Which instruments to diagnose school culture are available and how can they be characterised? Which culture model and theories are they based on? What experiences have been made with these instruments?
3. Which parameters or guidelines for a self-evaluation tool to diagnose school culture in an international setting can be derived from the answers to question 1 and 2? This part is not intended for publication. As it addresses mainly the Q-KULT project partnership, it is written in German.

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2 School culture and quality practices

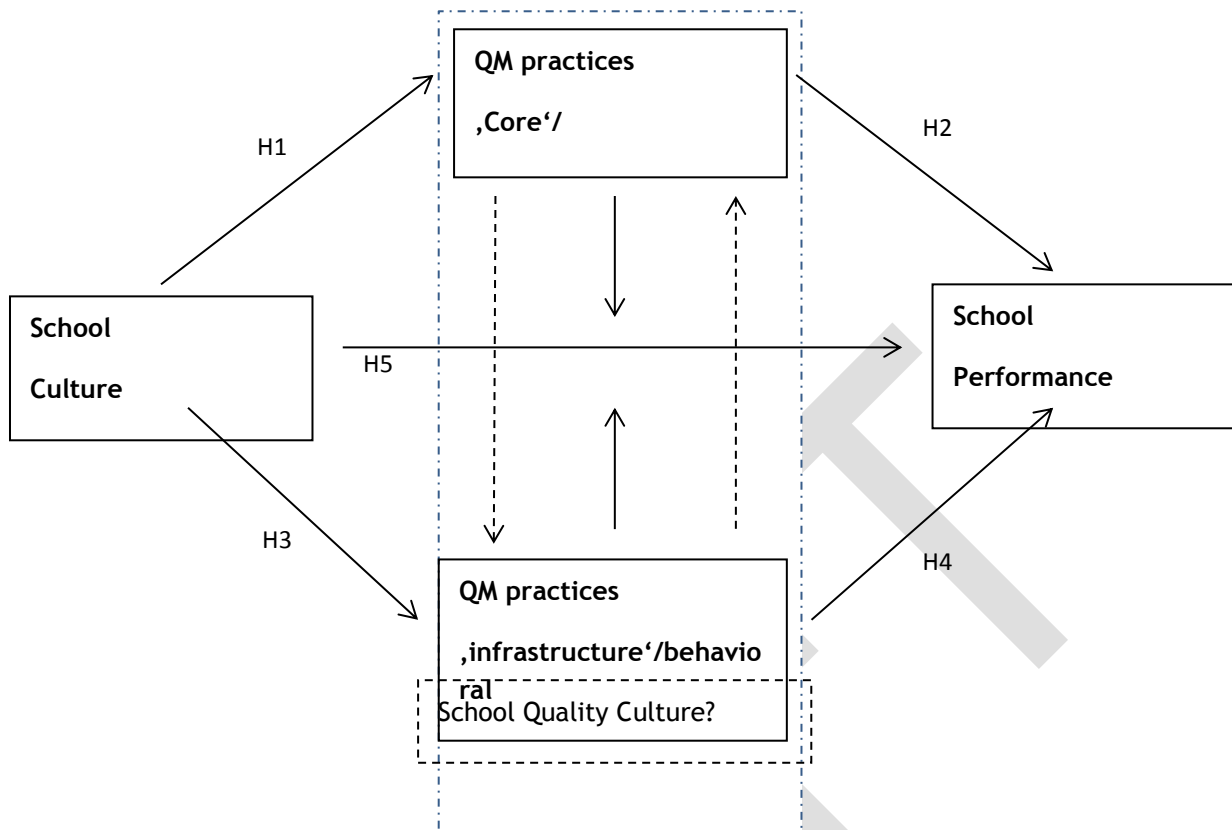
2.1 Modelling the relation between organisational culture, quality practices and performance

The initial idea that there is an important relationship between cultural aspects of an organisation and the ability to successfully implement quality management as well as their underlying assumptions can be modelled quite easily. Also the distinction between the 'technocratic' and the 'cultural' side can be integrated without becoming too complex. Literature on quality management provides ample evidence of comparable differentiations of quality management practices speaking of 'core' (technical) and 'infrastructure' (behavioral) aspects¹ (Flynn, Schroeder, & Sakakibara, 1995; Sousa & Voss, 2002). Although many authors (e.g. Dean & Bowen, 1994; Sitkin, Sutcliffe, & Schroeder, 1994; Spencer, 1994) defend the integration of 'core' and 'infrastructure' QM aspects and although there are consistent empirical results (of Flynn et al. (1995); Anderson, Rungtusanatham, and Schroeder (1994) other studies have raised doubts about the contribution of core practices to performance, suggesting that infrastructure practices can produce performance even without the core practices (Dow, Samson, & Ford, 1999; Powell, 1995; Samson & Terziovski, 1999; quoted by Sousa & Voss, 2002).

Taking this distinction between core (or hard) and infrastructure (or soft) aspects into account, it is possible to model the relationship between organisational culture, quality practices and performance as sketched in Diagram 1. Following this model a direct influence of school culture on performance (H5) or an influence moderated via QM core practices (H1+H2) or via QM infrastructure practices (H3+H4) or both is possible. For sure, these relations (H1 to H4) can also be independent (e.g. school culture influencing QM practices without further effect on school performance). Finally, QM practices can have a mediating effect on H5.

¹ Examples for infrastructure aspects are: management commitment and support, internal cooperation, employee involvement, empowerment and training, customer involvement. Examples for core aspects are: benchmarking, process management, quality data and reporting.

Diagram 1: Modeling the relation between organisational culture, quality practices and performance



Source: Authors, (compare also Naor, Goldstein, Linderman, & Schroeder, 2008)

This could serve as simple version of a functional model of school culture, quality management and performance which starts to become complicated once we try to locate quality culture in this diagram, and start asking about the definition of culture and the potential relation between (organisational) school culture and school quality culture. For example, the European University Association (2005) defines quality culture as composed of the two quality management elements, quality management (technology) and quality commitment (culture). In their nomenclature this is at least partly a vicious circle, as they describe commitment as the cultural aspects of quality culture. To solve this contradiction one could restrict quality culture to the behavioral elements of quality management practices. But this solution would produce more problems than it solves, because one would have to argue that some artifacts (e.g. feedback questionnaires, an evaluation data system etc.) do not form part of the culture. In this way organisational culture research in education seems to perpetuate a problem from general organisational research, namely the imperfect boundaries between quality management as a set of management practices or as an organisational culture. Is quality management a set of practices, or, is it a specific type of culture, or both? (Prajogo & McDermott, 2005, p. 1104).

2.2 Options to define school quality culture

Let us now turn to the most crucial question the possible answers to which transform the above model into something quite elaborated. How do school culture (SQ) and school quality culture (QC)

relate? Quality can be (and has been) interpreted in at least four fundamental ways (see also Diagram 4 in the Annex)²:

1. Quality culture is composed of elements or dimensions (of the broader environment) of organisational culture which are decisive for the implementation or practice of QM. In this case, quality culture can be identified as part of the organisational culture. It is sort of a thematic subculture, such as management culture (e.g. Ackeren, Block, Kullmann, & Klemm, 2008; Ehlers, 2008). ($QC \subseteq SC$)
2. Quality culture may share some elements or dimension of school culture, but may also have some different key values not covered in common organisational culture concepts. Detert, Seashore Louis, and Schroeder (2001) (also in Detert et al., 2003) gives the example of customer orientation (see also Powell, 1995; Schein, 2010/1985; Zeitz, Johannesson, & Ritchie, 1997). ($QC \approx SC$).
3. Quality culture is identical with organisational culture and just used as another term for it. In this case there is no such thing as quality culture. ($QC = OC$)
4. Quality culture is a genuine construct different from organisational culture. In this case quality culture cannot be described based on models of organisational culture. ($QC \neq OC$)

For sure the conceptual approach to understand the relation between organisational culture and quality culture could be simplified by denying that there is such a thing as quality culture and by preferring option 3 above. However, in doing so we would also have to deny that not only school administrators, but also practitioners in schools speak about quality culture. And they do this in a way which leaves little doubt that there is something like quality culture distinct from school culture. As regards the fourth option it is hard to say whether it would simplify the analysis or complicate it. One could argue that, on the one hand, there is nothing to compare, because of their different nature and entity; on the other hand, one could consider exactly this an interesting situation which is worth being further explored.

Whatever approach is taken we have to admit that they are still an oversimplification; we should thus at least consider the following extensions:

1. The relationship is one-dimensional, illustrated at the horizontal level of culture in terms of a value framework. It does not take into consideration the potential vertical or deep structure of culture (be it a three-level structure as suggested by Schein (1990), a four-level structure by Hofstede (2010/1991), a five-level structure by Morgan, Gregory, and Roach (1997)). For each level the above relations would have to be described and discussed. For an example of a combined model see Schoen and Teddlie (2008).
2. Even if we restrict our model to values and try to compare value frameworks of organisational culture with value frameworks of quality management we should distinguish between 'espoused values' as opposed to 'values in-use'.
3. For reasons of simplification we have assumed a direct impact or an impact mediated or moderated by quality management on school performance. Actually, we would have to introduce service and/or process quality as an additional element in the model.
4. It is not just the definition of quality culture which is in question, but the definition of culture as such. Depending on which model or theory is applied to define culture, the options to use and interpret the above model will multiply. However, some theoretical perspective may deny

² We conceive these 'set relations' as conceptual, but it may also help to interpret them linguistically as hypernym, synonym, and polysem.

the possibility of a functional model per se. (We will address the theoretical foundations of school culture in Chapter 3).

5. Finally, we have not questioned the causal relationship, assuming that school culture influences the implementation of quality management in one or the other way. However, one can also argue that the introduction of quality management affects the organisational culture (compare Diagram 2 in the Annex). There are a few authors following this track (e.g. Kotter & Heskett, 1992; Lam, Poon, & Chin, 2008; Lewis, 1996). Although the ‘culture antecedes quality management’ perspective is more prominent, these examples show that we actually have to take the reciprocal relationships between the implementation of quality management and organisational culture into account (Zu, Robbins, & Fredendall, 2010, p. 100). This, however, would call for longitudinal studies which are indeed rare.

An attempt to illustrate some aspects of such an extended model can be found in the Annex of this paper (see Diagram 3). In the next section we briefly review empirical studies which contribute to an understanding of the complex relationship between organisational and quality culture in one or the other way. The focus on empirical evidence should not undermine the serious conceptual efforts which have been undertaken to arrive at a clear concept of quality culture. For example for higher education (Ehlers, 2008, 2009; G. Gordon, 2002; Harvey, 2009; Harvey & Stensaker, 2008; Kells, 1995; Lomas, 1999; Loukkola & Zhang, 2010; Milisiunaite, Adomaitiene, & Galginaitis, 2009; Stamatelos & Stamatelos, 2009; Yorke, 2000; Zulu, Murray, & Strydom, 2004), for vocational education (Ittner & Kurz, 2012; Jonach et al., 2012) or education in general (Detert, Schroeder, & Mauriel, 2000; Detert et al., 2001; Svensson & Klefsjo, 2010).

2.3 Evidence on organisational culture and quality practices

2.3.1 School culture and quality management

There are number of studies which investigate the relation of school culture to various performance or outcome aspects, e.g. on teacher organisational commitment and well-being (Zhu, Devos, & Li, 2011), student achievement (Heck & Marcoulides, 1996; Le Clear, 2005; MacNeil, Prater, & Busch, 2009; Smith, 2006; Van der Westhuizen, Mosoge, Swanepoel, & Coetsee, 2005), misbehaviour of students (Eder & Dämon, 2010); and a number of studies scrutinising the relation between school culture and leadership (Le Clear, 2005; Louis & Wahlstrom, 2011; Milton, 2011). However, for many of these studies it remains unclear whether they are measuring school culture or school climate (see below). Studies which deliberately distinguish between culture and climate are rare (e.g. Eder 2010).

Studies which in particular address the relation between culture and quality culture or practices in educational settings are extremely scarce. Some use the notion of ‘quality culture’ or ‘feedback culture’ *and* are empirical, but do neither define nor operationalise culture and are therefore not able to address any relations (e.g. Svensson & Klefsjo, 2010) There are also interesting case studies on the relevance of culture for implementing quality management, which provide useful hints, but can hardly be generalised. For example, J. Davies, Douglas, and Douglas (2007) concluded from four case studies that the ideal mix of cultural factors to facilitate effective implementation of the EFQM in UK universities includes ‘an emphasis on teamwork rather than individualism’, appealing to the self-improvement aspect of the professionalism of academic staff as an aid to implementation; and a supportive environment. All this is little surprising and actually more interesting is what they did not find, namely an effect of tailoring the language and terminology of the EFQM or the appropriate management style as claimed by others (Kells, 1995).

Finally there is no empirical study in the area of vocational education and training dealing with organisational culture and quality culture. One study which comes close to this issue investigated the empirical linkage between organisational learning and TQM culture (Lam et al., 2008). Given the overlap between organisational learning and strong school cultures (Leithwood & Louis, 1998),

the results seem to be transferrable to school culture. However, this study actually turns the argument around: it identified shared visions, long term focus and teacher involvement as the three key quality culture enablers of organisational learning. Even more disappointing is the fact that it does not become clear in which way the results may differ in vocational education from other types of education. Even more than in primary education and general secondary education, we can expect strong subcultures in vocational education. In almost all countries with a respectable VET system we will find strong differences between vocational subjects (often locally segregated), such as technology, commerce or social work imposed by the respective professional communities from which teachers come or to which they are linked. But even in the same VET school we are often aware of an invisible curtain between the teachers of general subjects and those of vocational or technical subjects (often determined by differences in teacher education or access to the teaching profession). Finally, cultural differences between teachers of practical subjects (often practitioners without much pedagogical training) and academics can be expected in VET (on the topic of subcultures see also Chapter 3.2).

The works of James Detert (Detert & Pollock, 2008; Detert et al., 2003; Detert et al., 2000; Detert et al., 2001) form one big exception to these scarce contributions. They provide the most systematic and prolific research on the relation of organisational culture and quality management in schools. We therefore focus on these contributions, before we turn to other educational areas and studies which deal with the relation of organisational culture and quality management in corporate settings.

In an early collaboration, Detert and Schroeder (Detert et al., 2000) performed a qualitative content analysis of literature reaching over two decades to identify the specific dimensions of organisational culture actually used by researchers in surveys and in literature and arrived at eight dimensions (see Table 1). Next they scanned the TQM literature and used an expert panel to determine the normative dimensions that have been used to define the ideal culture of a TQM organisation. Finally, they discussed each of the cultural dimensions with the TQM values. In subsequent work they developed this into a value framework for quality culture in schools defining nine quality values for schools (as well as their opposites, see Table 1) (Detert et al., 2001). Finally, they developed this into a survey instrument to measure quality management culture in schools (Detert et al., 2003) which seems to be until now the only attempt to measure 'school quality (management) culture'. The idea of the 'School Quality Management Culture Survey' (SQMCS) was to help schools to evaluate their cultural alignment with quality management concepts and practices. While applying a broad concept of culture comprising values, beliefs, norms and symbols, they are well aware of the limitations of their survey methodology and propose supplemental measurement approaches to arrive at a more comprehensive picture. The SQMCS does not attempt to measure symbols and artefacts nor can it distinguish desired from actual beliefs. Detert's work is not only relevant for our purpose because it provides a validated survey instrument to assess school quality culture, it is also remarkable for many other aspects, some of which we briefly refer to.

According to Detert et al. (2003) there are two types of studies on organisational culture and quality management. The first type of studies are those that claim to be exploring quality management and its culture, yet deal almost exclusively in the realm of quality management practices (among others they refer to Anderson et al., 1994; Flynn, Schroeder, & Sakakibara, 1994; Marcoulides & Heck, 1993; Morrow, 1997; Reynolds, 1986; Tata & Prasad, 1998). These studies are criticised for being tautological as the implicit argument is 'organisations do practice X because their culture is to practice X' (Detert et al., 2003, p. 309). In case these studies define a quality culture they are of type 3 (QC = OC). The second type of studies measure organisational culture (mostly using existing frameworks and survey instruments) and relate these to quality management implementation (among others referring to Al-khalifa & Aspinwall, 2000; Kim S. Cameron & Freeman, 1991; Chang, 1996; Klein, Masi, & Weidner, 1995; Rigsby, 1995; Yeung, Brockbank, & Ulrich, 1991). Although these studies provide useful information about certain aspects of culture and their relation to quality management implementation, Detert et al. claim that they are bound by the aspects of

culture covered by the instrument (Detert et al., 2000; Detert et al., 2001). An approach we described by type 1 (QC \subseteq SC). Detert's own approach can be described by type 2 (QC \approx SC).

Table 1: Organisational culture dimensions, value frameworks for school quality cultures and TQM cultures

Organisational culture dimension (Detert et al., 2000, p. 885)	Value Framework for QM Cultures in Schools (Detert et al., 2001, p. 1991ff.)	Values of TQM3 (Lagrosen, 2003, p. 475)	Channels that facilitate a TQM Culture (Gallear & Ghobadian, 2004, p. 1051)
<ol style="list-style-type: none"> 1. The basis of truth and rationality in the organisation 2. The nature of time and time horizon 3. Motivation 4. Stability vs. change/innovation/personal growth 5. Orientation to work, tasks, and co-workers 6. Isolation vs. collaboration/cooperation 7. Control, coordination, and responsibility 8. Orientation and focus - internal and/or external 	<ol style="list-style-type: none"> 1. A shared vision and shared goals among faculty, staff and administrators are critical for school success 2. Educational needs should be determined primarily by parents, community groups, students, and other stakeholders 3. Improving education requires a long-term commitment. 4. A school should strive to make continuous changes to improve education. 5. Teachers should be active in improving the overall school operation. 6. Collaboration is necessary for an effective school. 7. Decision making should rely on factual information 8. Quality problems are caused by poor system and processes, not by teachers 9. Quality can be improved with the existing resources. 	<ol style="list-style-type: none"> 1. Measurement focus 2. Business process focus 3. Continuous improvements 4. Full participation 5. Leadership commitment 6. Customer orientation 	<ol style="list-style-type: none"> 1. Leadership and vision from the top (4.96) 2. Teamwork (4.74) 3. Active and visible participation of top management (4.74) 4. commitment to and promotion of the TQM concept by the Chief Executive to all levels of the organisation (4.68) 5. involvement and commitment from all employees (4.6) 6. all employees dedicated to continuous (process/working practice) improvement (4.57)

Source: See references in the first row.

Apart from the work of Detert and colleagues we only found one quantitative study in education which deals with organisational culture and quality. Trivellas and Dargenidou (2009) examined the influence of organisational culture on the quality of services in higher education (see 'H5' in the model in Annex) based on a survey among faculty and administration members. They use the Competing Values Framework (Kim S. Cameron & Freeman, 1991) to operationalise organisational culture and quality dimensions in higher education as proposed by Owlia and Aspinwall (1996) and Waugh (2002) as a measure of administration quality. They found that adhocracy cultures which

³ Prajogo and McDermott (2005, p. 1103) acknowledge three core elements as common grounds of TQM: customer focus, continuous improvement, and total involvement.

stress entrepreneurship, creativity, pro-activeness and innovativeness in discovering new markets and which is characterised by flexibility, adaptability and external orientation are conducive to enhancing the quality of teaching and administration. However, we do not know whether quality management plays a role in this game.

2.3.2 Organisational culture and quality management

If one leaves the educational setting and includes studies from other fields which explore the relation between organisational culture and quality culture there is quite a selection of works which could be reviewed. Just as in educational research, most of the empirical studies in the field of organisational research are on organisational culture and performance (e.g. Flynn et al., 1994; G. G. Gordon & DiTomaso, 1992; Samson & Terziovski, 1999; Scott, Mannion, Marshall, & Davies, 2003; Wilderom, Glunk, & Maslowski, 2000; Wilkins & Ouchi, 1983)⁴. There is also substantial work on organisational culture and quality outcomes (e.g. L. M. Corbett & Rastrick, 2000; H. Davies, Nutley, & Mannion, 2000; Gifford, Zammuto, & Goodman, 2002; Goodman, Zammuto, & Gifford, 2001).

Although there is less empirical research on the relation of quality management and organisational culture, it is still very remarkable in comparison to what we found in education. In particular in the last decade there were a number of studies which all investigated TQM and organisational culture in various settings (construction, manufacturing, hospitals) with quite similar methods, for example: (Gallear and Ghobadian (2004); Haffar, Al-Karaghoul, and Ghoneim (2013); Irani, Beskese, and Love (2004); Klein et al. (1995); Lagrosen (2003); Lewis (1996); Prajogo and McDermott (2005); Rad (2006); Yong and Pheng (2008); Zeitz et al. (1997); Zu et al. (2010)). All of them were published in journals of operation management or quality management.

Two of the earlier articles are particularly interesting because they introduce new conceptual approaches to the topic. Gallear and Ghobadian (2004, p. 1044) take up Maull, Brown, and Cliffe (2001) point that there are at least four views of culture in the organisational culture literature: *as a learned entity, as a belief system, as a strategy, and as a mental programming*. For each view they arrive at four ways of overlapping between the concept of organisational culture and TQM (see Diagram 5 in Annex and compare this view with our restriction regarding the different conceptions of culture in our functional model). First, TQM is a tool for both changing and forming organisational culture. Next, TQM has its own set of values that relate to values of organisational culture. Finally, it is also a tool for changing the values of an organisation towards the direction of TQM values. Although TQM has a separate origin from culture research, the two fields have converged.

Gallear and Ghobadian (2004) go on by systematically examining the conditions ('channels') that influence, mould and sustain a desirable cultural orientation required for total quality management. They do so by applying a Delphi approach to around fifty benchmark organisations recognised as leading exponents of TQM, which finally rated a list of fifteen statements using a five-point Likert scale. Three of the six necessary conditions (compare Table 1) rated as very important are related to the top management of the organisations. Furthermore the concept of 'commitment' featured three times within the top six. Hence, their overall conclusion is little surprising, which is: the focus should be first on providing leadership and vision from the top management, ensuring active and visible participation of top management and second on the mobilisation of all employees around the goal of continuous improvement and enlisting their active commitment and involvement (Gallear & Ghobadian, 2004, p. 1059).

Prajogo and McDermott (2005) also explore the relationship between TQM practices and organisational culture with the purpose of identifying the particular culture that determines the successful implementation of TQM. Their starting point is the appraisal that there are two

⁴ For a recent review see Sackmann (2011).

competing schools of thoughts. The first ('unitarist') view argues that TQM is associated with a single 'homogenous' culture (one that is flexible and people-oriented). The second ('pluralist') view supports the idea of heterogeneity of various cultural dimensions on which TQM should build (different cultural characteristics are associated with different elements of TQM). Accordingly, the unitarists view TQM as a uni-dimensional 'package' which has to be implemented as a whole, the pluralists suggest that TQM practice is multidimensional.

Based on a survey of around 200 managers and applying the Malcolm Baldrige National Quality Award (MBNQA) criteria to measure TQM and the competing values framework (Denison & Spreitzer, 1991) to measure organisational culture- they conclude that the pluralist model is superior. In both models 'group culture', followed by 'developmental culture' turned out to be the most dominant one and in congruence with previous literature. However, they also found that combined with group culture mechanistic or hierarchical-type cultural elements correlate with TQM practices and hence a coexistence of control and people-centered elements. This implies that quality management calls for a balance of these antagonistic elements within an organisation. Together with Thompson (1999) they conclude that managing the cultural paradox could be one of the primary issues of QM and the biggest challenge for organisations that implement it.

By using data from about 200 plants from six countries and also applying the competing values framework, Naor et al. (2008) tested the influence of organisational culture on core (technical) quality management practices vs. infrastructure (behavioral) quality management practices. They found a stronger influence for the latter. Furthermore, infrastructure quality management practices have a significant effect on manufacturing performance. Thus, their results emphasise the importance of the soft people-oriented quality practices in developing a competitive advantage (Powell, 1995). Even more interesting, their findings indicate that infrastructure quality practices do not affect the core quality practices and can enhance performance without their presence (Naor et al., 2008, p. 694).

Baird, Hu, and Reeve (2011) found that the cultural dimension teamwork/respect for people is the most important factor in enhancing the use of TQM practices which they measured using Kaynak (2003) four core TQM practices (quality data and reporting, supplier quality management, product/service design, process management). Zu et al. (2010) build on Prajogo and McDermott (2005) also using the competing values framework by expanding the TQM practices to include the Six Sigma practices. They confirm previous findings that group culture with its emphasis on commitment and cooperation is the most dominant cultural type for overall TQM/Six Sigma implementation. They find weaker influence for developmental and rational culture and no influence for hierarchical culture, and go on supporting Prajogo's view that flexibility- and people-oriented culture values have to be combined with control and external-oriented values. Haffar et al. (2013), for the time being, has been the last in this list of researchers who empirically examined the organisational culture and quality management link. He as well used the competing values framework with a focus on the mediating role of individual readiness for change.

Finally Green (2012) offers a welcome change to this series of rather similar quantitative contributions, by conceptually trying to identify the particular 'cultural traits' which are conducive to TQM success in four different models of organisational culture. They deliberately selected four disparate models. For each of the models they tried to 'locate' which part in particular provides a conducive environment for TQM. With the exception of Irani (2002), which build on a case study, and Green (which is purely literature based) all studies are quantitative, they all use rather similar methods, mainly applying a typological approach to culture. Besides Lagrosen (2002) who examines the influence of national culture on implementing TQM in an organisation all studies focus on organisational culture.

3 What is school culture?

We cannot not provide a full review of school culture research here as this would require more than just a paper section. While early reviews such as Firestone and Louis (1999) or Prosser (1999) with a focus on the UK were able to capture the topic in a longer book chapter, it meanwhile would require a whole book. In our literature which has been conducted with much care, but in two languages (English and German) only, we identified around 240 academic publications contributing to school culture. What we offer here instead is a discussion of tools and concepts which are able to structure the growing body of research on school culture. We do so by addressing the terminological aspects involved, in particular the debate on culture vs. climate, by offering a historical view on the scholarly debates, and by describing the various approaches to structure the theories used to analyse school culture.

3.1 Terminological account

There is a profusion of meaning of school culture (Prosser, 1999), and there are a number of similar terms such as climate, ethos, atmosphere, character or tone, used to describe what is often assumed to be a common phenomenon that needs little explanation. Some of the literature on school culture even reads as if the term was used as a residual category to subsume everything which cannot be clearly explained or measured. However, neither the fact that many researchers use implicit definitions of the term, nor the number of actual definitions provided is surprising: see for example Prosser (1999, p. 8), Schoen and Teddlie (2008, p. 132 f.), or Martin (2002, p. 57 f.). Culture is an ‘essentially contested concept’ (for a discussion see Collier, Daniel Hidalgo, & Olivia Maciuceanu, 2006; for the original see Gallie, 1955) which inevitably involves endless disputes about their uses and meaning. This does not change with adding a prefix like ‘school’ or ‘organisational’. Prosser (1999, p. 9) concludes that ‘since definitions of school culture are so general and all encompassing they are of limited worth and convey little in terms of meanings attributed’. However, this does not relieve researchers from clarifying its meaning within the context of use.

The most intense terminological debate in this respect was unquestionably the one on climate and culture. Denison stated that the boundaries between climate and culture are ambiguous (Denison, 1996). He is concerned about the appearance of a number of articles (early 1990ies) which all apply quantitative research methods to the study of culture and he observes a reappearance of the older and at that time neglected tradition of organisational climate. Also according to Firestone and Louis (1999, p. 298) the distinction between culture and climate became even less clear as researchers began using surveys and experimental methods to study culture.

With the usual delay of a decade, the debate on climate vs. culture has also entered school research. School climate is definitely the older term, probably first applied to schools by Pace and Stern (1958). Halpin and Croft (1962) finally borrowed the term from organisational researcher Argyris (1958) and transported it to the educational setting (Prosser 1999, p. 6; van Houtte 2005, p. 72). Climate is used by school effectiveness researchers, the preferred term of quantitative researchers and typically viewed from a psychological perspective, while culture and related terms are used by school improvement, more qualitative oriented researchers from an anthropological perspective (Prosser 1999, p. 6., Schoen and Teddlie 2008, p. 133, Hoy et.al 1991). In the 1960ies, the emphasis was on the measurement of school climate (for a review see Freiberg & Stein, 1999). The culture concept was (re-)discovered by school research at the end of the 1980ies and beginning of 1990ies following an extensive decade of research on organisational culture which also had a number of quite popular publications (e.g. Hofstede, 2010/1991; Ouchi & Wilkins, 1985; Schein, 2010/1985).

Van Houtte (2005, p. 75) who presents a detailed discussion of the concepts of climate and culture argues that the main difference is that climate is usually seen in terms of shared perceptions, while culture is seen in terms of shared meanings and shares beliefs. Problems arise if climate is not seen

as an individual feature, but as organisational feature because aggregation is required and prone to error. Various studies pretend to research organisational climate, but are in fact an examination of individual perception of climate. Interestingly, also culture is mostly addressed through individual perceptions when trying to be measured although this is not a methodological necessity. Discussing the various pros and cons of the concepts, Van Houtte (2005, p. 84) comes to the conclusion that the term culture is better suited than climate if one wants to gain insight into what members of an organisation assume, believe, think. Climate entails the total environmental quality and is broader than culture and as multidimensional construct encompasses culture. Her main argument is that in contrast to climate it is clear how cultures originate and may influence individual members of organisations (an aspect Denison 1996, p. 621 attributes to climate!). Schoen and Teddlie (2008) agree to van Houtte's general conclusion to prefer culture, however in contrast to van Houtte they propose to think of climate as a subset of the broader construct of culture. Applying Schein's theory to the school context seems to fit the idea that school culture and school climate are component parts of the same construct (School climate corresponding to espoused beliefs and school culture to basic assumptions, Schoen and Teddlie, p. 138f). They finally present a new integrated model of school culture comprising four dimensions that exist at Schein's three levels of abstraction: Professional orientation, organisational structure, learning environment, student-centred focus.

Table 2: School Climate and School Cluture

	Climate	Culture
Definitions	Substantial overlapping	
Disciplinary focus	psychological	anthropological
Theoretical foundations	Field theory of Kurt Lewin	Symbolic interaction and social constructivism
Focus	Shared perceptions	Shared assumptions
Dominating methodological approach	Originally quantitative, now high overlap	Originally qualitative, now high overlap
Content & Substance (Variables and dimensions used)	High overlap	
Consistency / Congruence of findings	High resemblance	

Source: Author, ideas taken from (Hoy (2011); Maxwell and Thomas (1991); Prosser (1999); Schoen and Teddlie (2008)). For a more comprehensive overview in organisational research see Denison (1996, p. 625)

3.2 Historical account (to be completed)

See (Maslowski, 2005, p. 6) (Pol, Hlouskova, Novotny, Vaclavikova, & Zounek, 2005, pp. 149-150) (Cheng, 1993, pp. 86-88) (Göhlich, 2007)

3.3 Theoretical accounts

The most recent review of school culture research we came across (Pol et al., 2005), offers a typology to structure the various studies, however it does so only by referring to their purpose, not taking into account their theoretical conceptions. In this respect earlier works are more fruitful.

Firestone and Louis' contribution to the Handbook of research on educational administration (Firestone & Louis, 1999) provides the first comprehensive account of school culture research reviewing extensive literature from various contributing fields such as anthropology, sociology, educational science, and organisational research. Their article until today serves as probably the best introduction to the topic.

They contend that the conception of school culture mainly came from organisational research and stayed close to the functionalist traditions⁵ which has had three effects on the conception of school culture: 'First, they have taken insufficient advantage of the interpretive turn in social theory generally and not attended to theories using 'codes' to explain how culture works. Second, they have not adequately examined the role of culture in conflict or how culture is constructed. Finally culture has stayed a holistic concept and researchers have not attended to the interplay of national, organisational, subgroup, or other cultures' (Firestone & Louis, 1999, p. 298). The reason why research on organisational culture has focussed too exclusively on values and has paid too little attention to linguistic and behavioural codes can be traced back to the fact that Schein, Denison and others equate culture with 'values' (Firestone & Louis, 1999, p. 299). According to Firestone and Louis, this hides what is interesting about cultures in other research communities and they refer to Hatch (1993) and Smircich (1983) as researchers questioning the functionalist and causal paradigms taking a more phenomenological view on organisations borrowing from sociology and anthropology. This 'interpretive turn' both opened up new methodological directions (including ethnography and semiotics) and an alternative explanation of behaviour that de-emphasises values. By taking the emphasis on *values or codes* as one dimension and borrowing a concept of Swidler (1986) who distinguishes between cultures that develop under *settled* and *unsettled* circumstances as a second dimension they introduce a four field matrix to organise theories about cultures. However, they finally do not apply this typology to extant school culture research and hence, it is difficult to see whether this typology could be really helpful to structure theories on school culture.

An explicit typology of school culture theories is provided by Tsang (2009) who distinguished three approaches, 1) a typology-functionalist approach, 2) a process approach, and 3) an improvement-effectiveness approach, arguing strongly for the latter. The *typological-functional view* is based on functionalism and believes that school culture is contributory to school functioning, follows a holistic conception of school culture and does not acknowledge sub-cultures. It tends to be descriptive and is regarded as rather static. As proponent of this view D. Hargreaves (1995) is mentioned. The *process approach* focuses upon the mechanisms by which school culture is developed, it regards school culture as dynamic and in continuous interaction with external environments. There are two different theoretical camps representing this approach: symbolic interactionists emphasising the interpersonal interaction in schools trying to decode the symbolic side of organisations. In contrast, conflict theorists emphasise the conflict between dominant groups (e.g. teachers) and subordinate groups (e.g. students). Proponents quoted for the earlier include Maxwell and Thomas (1991), for the latter Erickson (1987). Finally, there is an *improvement-effectiveness approach*, which Tsang is in favour of, and which is based on functionalism and interactionism and which can be traced back to the movement of integrating school effectiveness and school improvement research. This approach which in a way is mediating the two others claims that school culture is diverse and dynamic and does not take a holistic view. School culture comprises different cultural elements and has both positive and negative functions to schools (Cavanagh & Dellar, 1996, 1997, 1998). Although Tsang's categories provide a useful approach to structure theoretical accounts of school culture, they can be criticised for not being sufficiently disjunct. In practice the improvement-effectiveness approach is difficult to distinguish from the others.

⁵ For an example of functions of school culture see Table 6 in the Annex.

A problem Müthing (2010) overcomes when simply distinguishing between normative and descriptive theories of school culture. Examples of the first are to be found in terms of 'Schulgestaltung' (e.g. Terhart, 1994), as indicators for school quality (e.g. Fend, 1995) or as overlapping of learning culture, organisational culture and education culture (Holtappels, 2003). Examples of the latter include school culture as pedagogical culture of the individual school (Werner Helsper, 2008) or as construct of norms and values (Deal & Peterson, 1999). An integration of normative and descriptive approaches she claims to have found in Schoen and Teddlie (2008) comprehensive model of school culture. However, Schoen and Teddlie (2008) only present a model which combines Schein's vertical levels with horizontal (content-related) levels of organisational culture and do not really develop a new theoretical perspective. Hence, one has to question both if the distinction between normative and descriptive holds true for the authors in question (in particular Terhart provides rather critical perspectives reflecting on normative approaches) and if the author has mistaken cultural models for theoretical perspectives. Also Göhlich (2007) would have to dissent as he, despite theoretical and methodological differences, subsumes Terhart (1994), Fend (1995), Werner Helsper, Böhme, Kramer, and Lingkost (1998) and his own works all under a culture-oriented approach which he distinguishes from a micro-political approach (Altrichter & Salzgeber, 2000) and an organisational theory approach (Dalín, 1993). What is remarkable in the German discourse on school culture (e.g. Duncker, 1995; Fend, 1995; Göhlich, 2007; Werner Helsper, 2000; W. Helsper, 2010; Holtappels, 1995, 2003; Keuffer, Krüger, Reinhardt, Weise, & Wenzel, 1998; Keuffer & Trautmann, 2010; Kluchert, 2009; Terhart, 1994) is that it largely, if not fully ignores the international discourse. Misleading assessments, e.g. such as dominating qualitative methods in school culture research (Göhlich, 2007, p. 119), can be seen a consequence of this ignorance.

Finally, the most fruitful approach to structure studies about school culture we found outside school culture research. Joanne Martin (based on Frost, Moore, Louis, Lundberg, & Martin, 1995; Martin & Meyerson, 1988; Meyerson & Martin, 1987) in 2002 provided an attempt to map the terrain of cultural research by which offers a number of helpful concepts and categories to structure the vast body of organisation research. These concepts can be applied to school culture research as well, which has not yet been done systematically (Martin, 2002).

In terms of theoretical views of cultures in organisations she distinguishes three perspectives: Integration, differentiation, and fragmentation (Martin, 2002, p. 100ff.). The *integrations perspective* focuses on those manifestations of a culture that have mutually consistent interpretations (Deal & Kennedy, 1982; Denison, 1990; Ouchi & Wilkins, 1985; Schein, 1990). The *differentiation perspective* focuses on manifestations of culture that have inconsistent interpretations. From this perspective consensus exists within an organisation, but only at the lower levels of subculture (Alvesson, 1993a; Meyer & Rowan, 1977). Finally the *fragmentation perspective* conceptualises the relations among cultural manifestations as neither clearly consistent nor as inconsistent, placing ambiguity at the core of culture (Alvesson, 1993b; Brown, Collins, & Duguid, 1989). Most of the empirical studies of cultures in organisation adopt one of these perspectives, while Martin advocates a three-perspective theory of culture.

Instead of summarising this approach here we continue by introducing two other typologies by Martin which we deem helpful in categorising studies about school culture. The level of analysis, which can be organisational, subcultural or individual (Martin, 2002, p. 152ff.) and finally, the interest which can be managerial, critical, or descriptive (Martin, 2002, p. 172ff.). Martin contends that most organisational culture studies are written in the managerial interest to help managers improving the productivity or performance of their organisations. Critical culture research has an 'antimanagement tone', recognises conflicting preferences, and shows how some preferences are privileged, whereas others are ignored and suppressed. Descriptive research usually implicitly claims to be value neutral, but actually it is described more as a sort of residual category. Although some congruency between Tsang's typology of school culture theories (e.g. between the differentiation perspective and the conflict theory or the functionalist and integration perspective)

cannot be denied, we prefer Martin's typology and we concur with her that functionalist and symbolic approaches are blurring.

Although developed for corporate organisational research, these three concepts (perspective, level of analysis, and interest) introduced by Martin do also allow to briefly describe and characterise school culture studies. For example Deal and Peterson (1999) would have to be classified as following an integration perspective, on the organisational level with a clear managerial interest. According to Van Houtte (2005, p. 83) most school researchers follow the differentiation perspective and acknowledge at least two distinct cultures: the student and the staff culture. With reference to Prosser (1999) she argues that the holistic view on school culture has been dropped since the 1990ies. Although this might be true for conceptual writing on school culture this assertion does not hold true for empirical studies and attempts to measure school culture. Most of these studies only rely upon the opinions expressed by staff members when measuring school culture. Although some try to distinguish different teacher sub-cultures and others between actual and espoused values, the majority of them conceptualise school culture as one single, integrated organisational culture (see more below).

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Table 3: Overview on approaches to organise theoretical perspectives on school culture or organisational culture.

Tsang (2009)	Müthing (2010)	Göhlich (2007)	Martin (2002)
<ul style="list-style-type: none"> – Typology-functional approach (Hargreaves, 1995) – Process approach - symbolic interactionism (Maxwell and Thomas, 1991) – Process approach - conflict theory (Erickson (1987) – Improvement-effectiveness approach (Cavanagh and Dellar, 1996, 1997, 1998) 	<ul style="list-style-type: none"> – Normative theories of school culture (e.g. Terhart, 1994; Fend, 1995, Holtappel, 2003) – Descriptive theories of school culture (e.g. Helsper, 2008; Deal and Peterson 1999). – Integration of normative and descriptive theories of school culture (Schoen & Teddlie, 2008) 	<ul style="list-style-type: none"> – Cultural theory approach (Fend, 1995; Göhlich, 2007; Werner Helsper et al., 1998; Terhart, 1994) – Micro-political approach (Altrichter & Salzgeber, 2000) – Organisational theory approach (Dalin, 1993). 	<ul style="list-style-type: none"> – Integration perspectives (Deal & Kennedy, 1982; Denison, 1990; Ouchi & Wilkins, 1985; Schein, 1990) – Differentiation perspectives (Alvesson, 1993a; Meyer & Rowan, 1977) – Fragmentation perspectives (Alvesson, 1993b; Brown, Collins, & Duguid, 1989)

Source: Author

3.4 Where is culture located?

For the analysis of school culture it is not only the theoretical perspective which is decisive for the approach and instruments chosen, but naturally also the second dimension proposed by Martin: the level of analysis. Or as Firestone puts it the answer to the question on where culture is located: Culture can be located at least three levels:

1. Nation state

‘Schoolwide cultures are most amenable to administrative influence. However aspects of school culture that really reflect national cultures will be less amenable to administrative influence.’ (Firestone & Louis, 1999, pp., p. 300) Hence, some characteristics of school culture we tend to regard as unchangeable are actually attributes of national culture which affect both the school and the individual teachers, students and parents (e.g. national difference in equality/inequality or collectivism/individualism). This becomes evident for example in the bargain between teachers and students to reduce academic expectations. However there is also evidence that ‘a school is a school no matter where it is located’. Dalin (1993) claims that the same model of school improvement can work in culturally different countries. A. Hargreaves (1994) argues that the conditions of teaching

and teachers are becoming the same in all post-modern settings. New institutionalists, in contrast, argue that the increasing similarities in organisational structure among countries are also forcing cultural similarities⁶ (Firestone & Louis, 1999, p. 306).

2. School culture: adult staff subcultures

On the one hand, school cultures are often described as coherent answers to various problems, on the other hand and the other end of the spectrum there are highly fractionalised schools. Metz (1990) describes such a split in teaching staff and explains the differences according to teachers' family backgrounds. A. Hargreaves (1986) exerts different occupational acculturation to explain different subcultures. In a study of a 14 elementary and secondary schools, H. D. Corbett, Dawson, and Firestone (1984), found that almost everyone had at least one subunit (a grade level, a subject department, etc.) that was particularly cohesive. (quoted by Firestone & Louis, 1999, p. 306). According to Firestone and Louis (1999), there are two factors which increase the development of departmental subcultures: the amount of interaction around departments and the disciplinary base of departments. Ackeren et al. (2008), studying a sample of 16 German Gymnasiums, found that a specific subculture of science teaching is relatively autonomous of the dominating general school culture.

3. School culture: student subculture

Student subcultures have been often described by cliques or social groups and scholars examined how the formation of student subculture is affected by gender or ethnicity. For example, Erickson (1987) questions the communication process thesis and the perceived labor market thesis to explain low school achievement by minority groups and argues for a culturally responsive pedagogy informed by resistance theory.

Prosser (1999) provides a slightly different, but equally fruitful approach to the question of where culture is located. He describes by 'wider culture' what Firestone and Louis named the level of national culture. Secondly, he refers to 'generic culture' as something by which schools can be distinguished from other institutions such as hospitals, prisons, or banks. Generic culture is also used to distinguish between sets of schools, e.g. private vs. public (Cooper, 1988).⁷ 'Unique culture', as a third term, refers to difference between individual schools. Finally, he suggests adding 'perceived culture' which he again distinguishes between on-site (internal) and off-site perceived culture (external/outside) view. Prosser (1999, p. 11) also acknowledges the importance of school sub-culture, but does not include these in his 'typology' of school culture meanings. See also Diagram 6 (in the annex) for an approach to 'locate' school culture.

⁶ See for example works by (Baker & LeTendre, 2005; Meyer, Boli, Thomas, & Ramirez, 1997; Strang & Meyer, 1993)

⁷ In this respect it is also interesting to think about the commonalities between for example hospitals, prisons and schools in contrast to, for example, private corporations. E.g. Detert and Pollock (2008) speaks of schools as 'highly institutionalized organisations dominated by professionals'.

4 Review of organisational culture instruments and instruments to diagnose school cultures

Much has been written about diagnosing and measuring organisational culture and the measurement instruments developed and their adopted variants have long passed the number of hundred. To keep an overview, we are condemned to building on existing overview studies and reviews of others. We summarise here in chronological order the various reviews we have come across. Most of these reviews focused on quantitative instruments, and even those which claim to include quantitative and qualitative tools (e.g. Jung et al. (2009) have a bias towards quantitative approaches. This is interesting inasmuch as the original organisational culture research was qualitative in nature (see also the Chapter 3.1 on Climate and Culture) and the insight that there is both a need for multilevel and multi-method conceptualisation came relatively early (Martin, 1992). By referring to Ott (1989), Rousseau (1990) and Schein (1990) Ashkanasy, Broadfoot, and Falkus (2000, p. 132) state that '[...] it is generally agreed that surveys represent an efficient and standardised means of tapping the shallower levels of Schein's typology. The deepest level of culture, on the other hand, can be investigated only through intensive observation, focused interviews, and the involvement of organisational members in self-analysis.' However, when looking at the actual survey practices this statement reiterated in one or the other form by many scholars and practitioners in the field does not hold true. Most of the (quantitative) instruments address values and beliefs, some behaviors, but non artefacts. Hence, there is no congruency between the hierarchy of levels of culture and the nature of method in terms of a quantitative-qualitative spectrum or as regards the survey resources implied.

Ashkanasy et al. (2000) not only provide the first review of questionnaire measures of organisations' culture they also suggested a very helpful typology to categorise the various instruments. They distinguish between *typing surveys* which identify organisations as belonging to one of several exclusive categories and *profiling surveys* measuring a variety of organisational culture dimensions. A distinction scholars have later described as *typological or dimensional* approach (Jung et al., 2009; Scott, Mannion, Davies, & Marshall, 2003). Profiling surveys can be further subdivided into effectiveness surveys, descriptive surveys, and fit profiles. *Effectiveness surveys* are those which are related to organisational effectiveness or performance, *descriptive surveys* measure values without relating it to performance and *fit profiles* look for congruence between individuals and the organisation (Ashkanasy et al., 2000, p. 135). From the eighteen instruments they analysed fifteen address Schein's second level (values and beliefs), ten of them are classified as profiling instruments, five as typing.

Delobbe (2002) reviewed twenty organisational culture questionnaires to identify the common cultural dimensions and the level of psychometric support for these dimensions. She finds faults with the coverage of a sufficiently wide range of generic and distinct cultural traits and the provision of psychometric information, especially concerning their convergent and discriminant validity. Finally she presents a new assessment tool ECO (*Echelles de Culture Organisationnelle*) which allegedly overcomes these shortcomings. The common core dimensions she identified across questionnaires are: people orientation, innovation, control and results/outcome orientation⁸. In her analysis she distinguishes questionnaires which were developed rationally through an a priori conceptual framework defining relevant dimensions of organisational culture (e.g., the Organisational Culture Inventory; the Organisational Culture Profile; the Competing Values Model) and questionnaires which were developed empirically through in-depth interviews of large samples of organisation members (e.g., the Survey of Management Climate; the Hofstede et al.'s Practices

⁸ Other studies that have sought to determine the conceptual overlap of culture dimensions across surveys are Detert et al. (2000), Ginevičius and Vaitkūnaite (2006) and Vaitkūnaitė, 2006; Xenikou Xenikou and Furnham (1996)

Questionnaire; the Comparative Emphasis Scale). Some are hybrids, combining both these deductive and inductive approaches.

Based on an extensive literature research with a focus on health services conducted in 2001, Scott, Mannion, Davies, et al. (2003) identified eighty-four papers dealing with the development or use of culture assessment instruments. Due to their interest in measuring the culture-performance link, they selected thirteen instruments for an in-depth analysis. These could be described by following either a typological approach (e.g. the competing Values Framework, Kim S. Cameron and Freeman (1991)) or a dimensional approach (e.g. the Organisational Culture Inventory, Cooke and Rousseau (1988)). Unsurprisingly, they came to the conclusion that there is no ideal instrument to assess the culture of (health) organisations. It depends on how to define 'culture', 'organisation', and 'measure', the purpose of the investigation, the intended use of the results and the availability of resources Scott, Mannion, Davies, et al. (2003, p. 929). Although determined to focus on quantitative instruments, they seem to be very much in favor of a multi-method approach: 'Triangulation may be particularly relevant to the examination of organisational culture, as different methods can be used to target different layers of culture. For example, the surface manifestation of culture, the artifacts, may be examined by observation; values may be examined using quantitative questionnaires; and underlying assumptions explored through in-depth interviews' (Scott, Mannion, Davies, et al., 2003, p. 935) and they conclude: '[...] it is unlikely that any single instrument will ever provide a valid, reliable, and trustworthy assessment of an organisation's culture, and so a multi-method approach will always be desirable.' (Scott, Mannion, Davies, et al., 2003, p. 942). Furthermore, they see the majority of the instruments at a preliminary stage and conclude that there is no 'ideal' instrument for the exploration of organisational culture.

By taking both a broad view on what they consider an instrument and a pluralist view on what can be conceived as 'organisational culture' Jung et al. (2009) identified seventy qualitative and quantitative instruments⁹ to explore organisational culture and did a psychometric assessment for forty-eight of them (including three school culture surveys¹⁰). A quantitative approach and self-report questionnaires are among the most common tools applied which they attribute to the consultancy background of many popular authors and the preference of big-company consultancy. However, the choice appears to the authors to be pragmatic and driven by the 'desire to design an off-the-shelf-product' rather than theory-driven (Jung et al., 2009, p. 1092). They criticise quantitative cultural exploration mainly for the rigid categories operationalised by such research: 'Given pre-determined categories within survey instruments, it is easy for items not contained within them to remain unnoticed; no unanticipated findings will be made and no information on respondents' reasoning behind the answers is obtained, so that one cannot be sure the questions were interpreted in the intended way. Therefore, the approach will at best arrive at superficial meanings of organisational culture.' (Jung et al., 2009, p. 1092). They see the majority of them at a preliminary stage and also conclude that there is no 'ideal' instrument for the exploration of organisational culture.

While only interested in instruments that seek to diagnose the effectiveness of organisational cultures, Denison, Nieminen, and Kotrba (2012) provide an update of Ashkanasy et al. (2000) review and of Jung et al. (2009) by adding a further three to the existing six profiling instruments identified previously in this category. In as much as they deliberately review the existing research it remains unclear why they did not incorporate the review provided by Taras, Roney, and Steel (2009) which is based on the most comprehensive collection of respective instruments to date. Maybe because they have a cross-cultural focus and mainly referred to national cultures? However, their collection of 121 instruments also contains quite a number of instruments aiming at measuring organisational

⁹ See also their compendium of instruments: Jung et al. (2007).

¹⁰ School Quality Management Culture Survey; School Values Inventory; School Work Culture Profile

culture.¹¹ Taras et al. (2009) identified the twenty-six most popular facets of culture (thirteen of them have been used by not less than fifteen instruments, four of them have been used by at least thirty instruments¹²). Almost all of them contain at least some dimensions that are conceptually similar to those introduced by Hofstede (1980) whose work they are using as a reference point. Their analysis provides a valuable characterisation of existing instruments from which we can learn that self-report questionnaires have been virtually the only tool for quantitative measurement of culture, that they all follow an ethical approach, and that most cross-national studies include data from two to ten countries with the exception of a few larger studies. Apart from that their analysis of challenges and best practices for collecting data, types of items, reliability and validity could be easily transferred into a guideline to develop a culture assessment questionnaire.

Summarising the various reviews of measurement instruments for organisational culture, we can conclude that: firstly, there is no ideal instrument; secondly, there has been a trend towards quantifying instruments since the late 1980ies; and thirdly, against the shared knowledge that multi-methods would be most appropriate, multi-method cultural studies are still the exception¹³. Finally, not only the instruments themselves, but also the reviews are biased towards the interests of the authors, often only selecting a certain subset or with a clear interest to focus on quantitative studies.

Table 4: Common descriptors to categorise instruments exploring organisational culture:

Method	Qualitative, quantitative, or Combined (multi-method)
Development	Conceptual or empirical (Delobbe, 2002)
Approach	Typological (typing) or dimensional (profiling) (Ashkanasy et al., 2000; Jung et al., 2009; Scott, Mannion, Davies, et al., 2003);
Purpose	formative, summative, or diagnostic ¹⁴ (Jung et al., 2009); effectiveness surveys, descriptive surveys, and fit profiles (Ashkanasy et al., 2000)

Source: Authors

¹¹ In 2013 (Taras) published an updated version of the collection of instruments (in alphabetical order by authors) including an extract of the dimensions or items used including 157 instruments.

¹² These are: self vs. group interest, group loyalty, teamwork and cooperation, self-reliance.

¹³ The common case made against qualitative methods is that (a) the dimensions of culture identified in one setting are idiosyncratic and not necessarily relevant in another context, (b) the qualitative approach is unable to produce culture information coherently linkable to major outcomes such as organisational performance. For advocates of a alternative and multi-method approaches see Easterby-Smith (1988), Mallak, Lyth, Olson, Ulshafer, and Sardone (2003), (Yauch & Steudel, 2003), or Martin (2002), Chapter II, 7.

¹⁴ "A formative exploration offers feedback on the cultural elements of performance and change. This can be used to inform organisational development and learning. A cross-sectional or longitudinal examination of culture and its relationship to other organisational variables is offered through summative exploration. Such an approach can inform judgment on various characteristics and dimensions of culture and can be employed within formal performance management arrangements. Finally, a diagnostic exploration can offer insights on existing cultural traits and processes within an organisation and their functionality in relation to promoting desirable organisational processes and outcomes. The purpose is to identify areas of strengths and weakness within an organisation, and it can be used to examine organisational capacity, receptiveness, and readiness for cultural change at the organisation, unit, team, or individual level. While summative approaches are of greater interest to those concerned with understanding organisational culture from a general research perspective, formative and diagnostic approaches are of interest to those looking to manage and develop organisational culture" (Jung et al., 2009). Compare this also with Martins distinction in managerial, critical and descriptive.

4.1.1 School culture surveys

The field of school culture surveys is better manageable than organisational culture surveys, but still there are quite a number of survey instruments which can be identified. Luckily, there is a seminal review of school culture survey by Maslowski (2005) based on his thesis (Maslowski, 2001). Maslowski restricted his analysis to questionnaires which clearly focus on school culture, which are multidimensional and validated. He identified some twenty questionnaires from which he finally selected six which met his requirements. However, some of his exclusion criteria allow to map the wider terrain of school culture surveys (see Table 5). Thus, on a very superficial categorisation we can distinguish (1) 'genuine' instruments exploring school culture, from (2) instruments originally designed to explore organisational culture and occasionally applied to school settings, and (3) instruments directed at measuring related constructs or constructs which may contain facets of culture such as organisational climate in schools, organisational health, or instruments for measuring teachers' well-being or commitment and the like. However, for some of the instruments in the first group it is difficult to say whether they measure culture or climate and some authors are ambiguous in their own wording in this respect (e.g. Roby, 2011). Finally, all of the instruments refer in one way or the other to survey instruments developed to measure organisational culture or culture in general, and hence it is often a question of the degree of adaptation whether we should categorise it as 'genuine' school culture survey instrument or merely as application or adaption of an existing instrument for organisational culture.

For many reasons it is very difficult, if not impossible to determine the number of existing instruments to explore school culture: First, some instruments are based on previous ones and some exist in different versions and it is unclear how these should be counted. Second, there is no clear-cut criterion defining what constitutes a genuine school culture survey instrument and how to distinguish it from e.g. a school climate survey (see the argument of Denison Chapter 3.1). Third, our research was limited to English and German instruments and, rather accidentally, came across one in Dutch. However, there is some evidence that some genuine school culture surveys have taken place also in Spain, Poland and the Czech Republic, but we did not have the resources to follow these. Fourth, there are a number of unidentified school culture questionnaires which can be found on the internet and for which it is unclear when, how and by whom they have been developed¹⁵. These instruments are often provided by administrators of school districts or commercial providers and only occasionally refer to the literature on which the instrument is based. The availability of these instruments shows that a certain diffusion of school culture survey instruments from research to practice has taken place in the last decade and there seems to be both a scholarly discourse as well as a particular school improvement practice related to school culture. However, the problem is that we have very limited knowledge about the actual use of school culture survey instruments. Research is needed which explores the practice of application of existing instruments and which follows the further development of instruments after their maiden trip. If we leave those that have never passed their early stages and those which have never been validated, still for many of the developed instruments which are well documented it is not known whether they have even been ever used a second time.

Out of the instruments identified to explore school culture, the majority are purely quantitative. Some include qualitative aspects either as particular methodological steps (e.g. PREP Centre) or as part of the method (Hejj, 1997) (the latter example is rather a preliminary work for an instrument than an instrument itself). Alternative methods, for example visual methods, are in their infancy

¹⁵ E.g. The National Achiever School Culture Survey (nationalachiever.com/schoolculturesurvey.pdf), The Virginia Commonwealth University School Culture Survey, The Association of California School Administrators ACSA School Culture Survey (www.acsa.org), The Respect and Responsibility School Culture Survey of State University of New York Cortland (www.cortland.edu) or the Motivation and School Culture Survey of the PREP Centre (<http://www.district287.org>). All accessed 31. January 2014.

(Prosser, 2007). Only for a few instruments tests for reliability and validity are available ((Maslowski, 2005). Most questionnaires use a 4- or 5-point Likert scale, but there is a big range as regards the number of items used (from 12 two 120). Typological approaches are scarce which may be explained by the fact that the general institutional framework of schools leaves little room to develop pronounced types of culture (e.g. in terms of Cameron’s clan, market, adhocracy, hierarchy typology, for an exception see Müthing (2010)). Some have a particular subject focus, e.g. on quality (Detert et al., 2003), democracy (Diedrich, 2007), respect (Cortland, 2012) or motivation (Maehr & Fyans, 1990; PREP Centre).

Table 5: Overview of school culture survey instruments

Instruments exploring school cultures	<ul style="list-style-type: none"> – School Culture Survey (Edwards, 1996; Saphier & King, 1985; Schweiker-Marra, 1995) – Questionnaire on the Cultures of Organisations (Handy & Aitken, 1986) – School Work Culture Profile (Snyder, 1988) – Organisational Cultural Assessment Inventory (Steinhoff & Owens, 1989) – Professional Culture Questionnaire for Primary Schools (Staessens, 1990, 1991b) – School Culture Assessment Questionnaire and School District Culture Assessment Questionnaire (Sashkin, 1990) – School Culture Survey (Maehr & Fyans, 1990) – Organisational Value Orientation Questionnaire (Shaw and Reyes 1992) – School-classroom culture audit (Phillips, 1993) – Organisational Ideology Questionnaire (Cheng 1993, 1996) – School Culture Scale (Higgins-D'Alessandro, 1995; Higgins-D'Alessandro & Sadh, 1998) – School Culture Inventory (Jones, 1996) – Images of School through Metaphor questionnaire (Grady, Fisher, & Fraser, 1996) – School Cultural Elements Questionnaire (Cavanagh & Dellar, 1996; 1997; Tsang, 2009) – Questionnaire for measuring organisational culture in primary schools (Houtveen et al., 1996) – School Values Inventory (Pang, 1996) – Assoziations- und Inhaltsanalyse von Schulkultur (Hejj, 1997) – School Culture Survey (Gruenert and Valentines, 1998) – School Culture Typology offered by the West Virginia Department of Education, based on Fullan and Hargreaves (1996) and Deal and Peterson (1999)
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	<ul style="list-style-type: none"> – School Culture Inventory (Maslowski, 2001) – School Culture Audit (Wagner & Masden-Copas, 2002) – School Quality Management Culture Survey SQMCS (Detert et al., 2003) – Demokratische Schulkultur (Diedrich, 2007) – Quick School Culture Inventory (Kruse & Louis, 2009) School Culture Review (Roby, 2011) – School Culture Scale (Cheng, 2012) – Measuring School Culture Survey (Ney, 2013)
Organisational culture questionnaires applied to school contexts	<ul style="list-style-type: none"> – Cooke and Lafferty's (1986) Organisational Culture Inventory, (see Cocchiola, 1990; Mooijman, 1994; Rzoska, 2000) – The Organisational Culture Assessment Instrument (Kim S Cameron and Ettington (1988); Kim S. Cameron and Freeman (1991); Kim S. Cameron and Quinn (2011)) was applied to Higher Education (Smart & John, 1996) and adapted to school context (see Müthing, 2010) – Index of organisational ideology based on Alvesson (1987) and Price and Mueller (1986) Price and Mueller (1986) was used by (Cheng, 1993)
Questionnaires related to school culture inventories	questionnaires directed at measuring organisational climate in schools, organisational health, or instruments for measuring teachers' well-being or commitment and the like

Source: Author

5 Lessons to learn for Q-KULT

Im folgenden Abschnitt habe ich Überlegungen, im Sinne von Empfehlungen, Anregungen und Fragen für die weitere Arbeit am Q-Kult-Projekt, die mir während der Erstellung des Arbeitspapiers gekommen sind zusammengefasst.

5.1 Eigene Annahmen explizieren!

Ohne dass wir uns auf einen endgültigen theoretischen Zugang bzw. ein Kulturmodell verständigt hätten, determiniert die Ausgangssituation des Projekts implizit eine Reihe an grundsätzlichen, theoretischen Sichtweisen. Es gilt im weiteren diese impliziten Annahmen unserer Arbeit zu explizieren und zu diskutieren. Die Literaturanalyse erlaubt zumindest einen Teil der impliziten Annahmen des Projektantrags wie folgt zu identifizieren:

1. Der Ausgangsüberlegung ‘Schulkultur wirkt förderlich/hinderlich auf Qualitätsentwicklung(-instrumente)’ liegt eine funktionalistische Sichtweise zugrunde (Schulkultur als Funktion von Schulentwicklung). Diese kann normativ funktionalistisch (‘eine starke/positive Schulkultur fördert QM’) oder neutral funktionalistisch (‘kontextspezifische Schulkultur’) gedeutet werden. Sind nicht-funktionalistische Sichtweisen bei der Ausgangssituation überhaupt denkbar? Wie könnte eine institutionalistische oder konflikttheoretische Auslegung des Zusammenhangs von Qualitätsmanagement und Schulkultur, die dennoch Gestaltungsraum lässt, aussehen?
2. Dem Ausgangspunkt liegt außerdem die Annahme zugrunde, dass Schulkultur prinzipiell verändert werden kann. Diese Annahme wiederum fußt auf der Einsicht, dass Kultur etwas ist, was eine Organisation ‘hat’ und nicht was sie ‘ist’ (Eine Einschätzung, die bei genauere Hinsicht wenig hilfreich ist). Dies geht konform mit der Ansicht, dass das Projektsetting eine Vergleichbarkeit der Schulkulturen voraussetzt und die Veränderung der Kultur steht im Vordergrund, und nicht das Verstehen der individuellen Kultur und Bedeutung der Organisation.
3. Eine weitere Projektannahme ist, dass Schulkultur (zumindest teilweise) quantitativ erhoben werden kann. Dies verweist auf ein eingeschränktes Kulturverständnis bzw. zumindest eine Einschränkung des Untersuchungsgegenstandes und rückt den Fokus eher in Richtung der Schulklima-Forschung bzw. einer intermediären Kulturebene der Einstellungen und Werte. Welche Ebenen und Dimensionen der Schulkultur fallen der gewählten Methode und der Praktikabilität des Instruments zum Opfer? Sollen wir trotz Einschränkung von Schulkultur sprechen oder wäre es eventuell ratsamer auf Ebene der tatsächlich identifizierten bzw. gemessenen Faktoren (z.B. von Lehrenden wahrgenommene Einstellungen) zu operieren? Schließlich ist auch die Frage zu stellen, wie nicht-kulturelle Aspekte auf die Implementierung bzw. Verwendung von Qualitätsmanagement wirken, wo diese in einem Wirkungsmodell Platz finden, und wie sie mit kulturellen Dimensionen interagieren.
4. Aus Punkt 2 (Änderung der Schulkultur), der Ausrichtung des zu entwickelnden Produkts auf die Schulleitung bzw. der Ursprung der Projektidee vor dem Hintergrund der Probleme der Schuladministration mit der Einführung von Qualitätsmanagement, folgt weiters ein ‘unternehmerischer’ Zugang bzw. ein Verwaltungsinteresse im Gegensatz etwa zu einem ausschließlich kritischen oder deskriptiven Zugang. Welche Einschränkungen ergeben sich daraus? Wie kann ein Zugang der gleichermaßen das Verwaltungsinteresse bedient und kritisch ist, aussehen? Jedenfalls gilt es das Interesse explizit zu machen und nicht etwa hinter vorgegebenen Forschungsinteressen zu verstecken.
5. In diesem Zusammenhang ist es auch wichtig sich des Projektkontextes bewusst zu werden. Warum kommt es gerade jetzt zu diesem Projekt? Welche Bedingungen mussten dazu erfüllt sein? Wieviel Erfahrung mit QM in der Berufsbildung mussten vorliegen? Wenn derartige Entwicklungen als Zyklus verstanden werden, können wir in Analogie zu anderen Bereichen nicht auch schon die Ergebnisse absehen? Wie verändert eine etwaige Voraussicht unser Verhalten?

6. Die Einschränkung der 'Schulkultur' bzw. Schulqualitätskultur'-Erhebung auf die Zielgruppe der Lehrenden bzw. des Schulpersonals negiert das Vorhandensein möglicher Subkulturen und impliziert einen 'integrativen' Ansatz (Martin) bzw. folgt gegebenenfalls einem anderen Ansatz, der jedoch empirisch nicht oder nur eingeschränkt verfolgt wird (siehe dazu auch die nächsten Punkte). Wie legitimieren wir im Falle der Entwicklung bzw. der Anwendung eines elaborierteren theoretischen Modells die empirischen Einschränkungen?

5.2 Den Gegenstand, die Ebene bzw. den Ort der Kultur spezifizieren!

Neben der Festlegung der inhaltlichen Dimensionen (zum Teil durch besondere Berücksichtigung von Qualitätsmanagement bereits festgelegt) und der Kulturebenen (zum Teil durch Festlegung des Erhebungsinstruments eingeschränkt) gilt es auch den eigentlichen Untersuchungsgegenstand / das zu untersuchende Phänomen zu spezifizieren. Die bereits getroffenen Einschränkungen, etwa auf Lehrende als Quelle bzw. die individuelle Schulkultur als Gegenstand, sind dazu keinesfalls ausreichend. Zunächst gilt es dabei die bereits getroffenen Einschränkungen grob im möglichen Gesamtfeld zu verorten und die Unterscheidung der Verortung von Schulkultur zur reflektieren.

1. Die Mitberücksichtigung des Einflusses nationaler Kultur könnte für das Projekt eine besondere Chance im Sinne eines Forschungsbeitrages zur Behebung des Mangels an vergleichenden Studien darstellen (Firestone & Louis, 1999, p. 318). Wie werden in dem Instrument nationale Spezifika abgebildet?
2. Die insbesondere in der Berufsbildung stark ausgeprägten Lehrenden-Subkulturen (bedingt durch Unterschiede in der Ausbildung, aber auch der disziplinären Zugehörigkeit) stellt eine weitere besondere Ressource im Projekt dar. Hier wäre zumindest entlang von drei Differenzierungen zu arbeiten: erstens zwischen Werkstättenlehrer vs. Fachlehrer, zweitens zwischen berufsfachlichen und allgemeinbildende Fächern unterrichtenden Lehrern, und drittens die Fachdisziplin selbst betreffend. Eventuell ist auch innerhalb der allgemeinbildenden Fächer auch noch zu unterscheiden ist (vgl. zum Beispiel zum naturwissenschaftlichen Unterricht Ackeren et al., 2008). Jedenfalls ist auch mit nationalen Unterschieden auf der Ebene dieser möglichen Subkulturen zu rechnen. Welche Annahmen dazu können wir formulieren?
3. Schüler(sub)kulturen werden nicht berücksichtigt. Welche Einschränkungen ergeben sich dadurch? Kann dies durch Forschungsergebnisse aus anderen Bereichen kompensiert werden? Wie verändert Schülerekultur jene der Erwachsenen (offene Forschungsfrage)? Darf man trotzdem von Schulkultur sprechen?

5.3 Sich die methodischen Einschränkungen bewusst machen!

Kein bestehendes Instrument zur Erfassung von Schulkultur oder Schulqualitätskultur wird ideal sein, sondern immer von individuellen Zielen und Gebrauch abhängig. Triangulation von Methoden ist bei der Kulturerfassung noch eher Seltenheit, jedoch von jenen die unterschiedliche Instrumente verglichen haben, als künftiger Königsweg beschrieben. Kombinierte theoretische Modelle der Organisationskultur (Martin, 2002) oder Schulkultur (Schoen & Teddlie, 2008) erfordern jedenfalls unterschiedliche Quellen und Methoden. Auch Maslowski (2006) spricht sich für Triangulation aus. Wir müssen uns im Zuge der Instrumentenentwicklung Klarheit über die diversen Einschränkungen verschaffen. Welche Kulturebene, welche Kulturdimensionen und welche mögliche Subkulturen werden nicht bedient?

1. Die Menge an bestehenden Instrumenten, und jene die sie teilweise analysierten, sprechen dafür sich diese genauer anzusehen, bevor überhaupt ein neues Instrument entwickelt wird. Dies ist zwar teilweise, aber sicher nicht vollständig geschehen. Insbesondere eine Systematisierung der verwendeten Items würde sich dafür wohl als nützlich erweisen. Sofern die Instrumente zugänglich sind, ist das verhältnismäßig rasch zu bewerkstelligen.

2. Einige der Instrumente müssten jedoch erst ausgehoben und zusätzliche Informationen dazu eingeholt werden. So steht etwa auch eine Vervollständigung der Tabelle 7 (im Anhang) noch aus. Die Ressourcen, dies in der erforderlichen Qualität zu bewerkstelligen, stehen jedoch nicht zur Verfügung. Können wir stattdessen klare Auswahlkriterien für mögliche Instrumente (z.B. nur validierte Instrumente, max. Anzahl an Items, Mehrdimensionalität, enthaltene Dimensionen) formulieren, die uns eine ex-Ante Einschränkung ermöglichen?
3. Die Wiederverwendung eines bestehenden Instruments würde der Fragmentierung der Forschung in diesem Bereich entgegenwirken und zur Systematisierung des Feldes beitragen. Es würde eventuell auch Ressourcen für anderes freimachen. Lässt sich eventuell ein Kompromiss durch die Adaptierung eines bestehenden Instruments finden, welche noch ausreichend Vergleichbarkeit zum Originalinstrument sicherstellt und den eigenen Zwecken genügt?
4. Ein noch interessanterer Vorschlag und bislang in dem Bereich nicht praktizierter Zugang wäre der gleichzeitige Test-Einsatz von mehreren (idealerweise drei) Instrumenten. Dabei könnte das im Projekt genuine entwickelte Instrument, neben einem oder zwei bestehenden Instrumenten getestet werden. Im Fachjargon bedeutet dies einen Multitrait-Multimethod-Ansatz (MTMM) mittels welchem die Messgüte der einzelnen Instrumente abgeschätzt werden könnte. Nachdem es sich bei den Schulen um Partner handelt, wäre ein solches Vorgehen, welches ja auf eine Mehrfachbefragung hinausläuft, eventuell auch zumutbar.
5. Haben wir im Projekt die notwendigen statistischen Kompetenzen, um die geplanten Tests der Instrumente adäquat durchzuführen?
6. Neben den unterschiedlichen theoretischen, und zum Teil ideologischen Zugängen gibt es zum Teil stark separierte Diskurse (organisationstheoretischer, erziehungswissenschaftlicher, wissenschaftsgestützter Diskurs der Qualitätsmanagementpraxis, usw.). Zu welchen der bestehenden Diskurse erwarten wir aus dem Projekt einen Beitrag neben den praktischen Zielen, die das Projekt verfolgt? Eine besondere Segregationslinie verläuft offensichtlich zwischen der theoretisch/konzeptionell wohl recht fortgeschrittenen deutschen erziehungswissenschaftlichen Literatur zur Schulkultur und der stärker empirisch orientierten multi-disziplinärer englischsprachigen Literatur. Lassen sich diese Stränge verknüpfen und für das Projekt fruchtbar machen?

6 References:

- Ackeren, I. v., Block, R., Kullmann, H., & Klemm, K. (2008). Schulkultur als Kontext naturwissenschaftlichen Lernens. Allgemeine und fachspezifische explorative Analysen. *Zeitschrift für Pädagogik*, 54(3), 341-360.
- Al-khalifa, K. N., & Aspinwall, E. M. (2000). Using the competing values framework to identify the ideal culture profile for TQM: a UK perspective. *International Journal of Manufacturing Technology and Management*, 2(1), 1024-1040.
- Altrichter, H., & Salzgeber, S. (2000). Some elements of a micro-political theory of school development. *Images of educational change*, 99-110.
- Alvesson, M. (1987). Organizations, culture, and ideology. *International Studies of Management & Organization*, 4-18.
- Alvesson, M. (1993a). *Cultural perspectives on organizations*: Cambridge University Press.
- Alvesson, M. (1993b). Organizations as rhetoric: Knowledge-intensive firms and the struggle with ambiguity. *Journal of management studies*, 30(6), 997-1015.
- Anderson, J. C., Rungtusanatham, M., & Schroeder, R. G. (1994). A theory of quality management underlying the Deming management method. *Academy of management Review*, 19(3), 472-509.
- Argyris, C. (1958). Some Problems in Conceptualizing Organizational Climate: A Case Study of a Bank. *Administrative Science Quarterly*, 2(4).
- Ashkanasy, N. M., Broadfoot, L. E., & Falkus, S. A. (2000). Questionnaire measures of organizational culture. In N. M. Ashkanasy, M. F. Peterson & C. P. Wilderom (Eds.), *Handbook of organizational culture and climate* (pp. 129-162). Thousand Oaks, California: Sage.
- Baird, K., Hu, K. J., & Reeve, R. (2011). The relationships between organizational culture, total quality management practices and operational performance. *International Journal of Operations & Production Management*, 31(7), 789-814.
- Baker, D., & LeTendre, G. K. (2005). *National differences, global similarities: World culture and the future of schooling*: Stanford University Press.
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32-42.
- Burrello, L. C., & Reitzug, U. C. (1993). Transforming context and developing culture in schools. *Journal of Counseling & Development*, 71(6), 669-677.
- Cameron, K. S., & Ettington, D. R. (1988). The conceptual framework of organizational culture. *Higher education: Handbook of theory and research*, 6, 356-396.
- Cameron, K. S., & Freeman, S. J. (1991). Cultural congruency, strength and type: Relationships to effectiveness. *Research in Organizational Change and Development*, 5, 23-58.
- Cameron, K. S., & Quinn, R. E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework*: John Wiley & Sons.
- Cavanagh, R. F., & Dellar, G. B. (1996). *School cultural elements questionnaire*. (Dissertation), Curtin University, Perth.
- Cavanagh, R. F., & Dellar, G. B. (1997). *Towards a Model of School Culture*. Paper presented at the paper presented at the Annual Meeting of the American Educational Research Association, Chicago.
- Cavanagh, R. F., & Dellar, G. B. (1998). The Development, Maintenance and Transformation of School Culture.
- Chang, S. (1996). The ideal culture profile for total quality management: a competing values perspective.

- Cheng, Y. C. (1993). Profiles of Organizational Culture and Effective Schools. *School Effectiveness and School Improvement*, 4(2), 85-110.
- Collier, D., Daniel Hidalgo, F., & Olivia Maciuceanu, A. (2006). Essentially contested concepts: Debates and applications. *Journal of Political Ideologies*, 11(3), 211-246.
- Cooke, R. A., & Rousseau, D. M. (1988). Behavioral Norms and Expectations: A Quantitative Approach To the Assessment of Organizational Culture. *Group & Organization Management*, 13(3), 245-273. doi: 10.1177/105960118801300302
- Cooper, M. (1988). Whose culture is it anyway? In A. Liebermann (Ed.), *Building a professional culture in schools* (pp. 45-54). New York: Teachers College Press.
- Corbett, H. D., Dawson, J. A., & Firestone, W. A. (1984). *School context and school change: Implications for effective planning*: Teachers College Press, Teachers College, Columbia University.
- Corbett, L. M., & Rastrick, K. N. (2000). Quality performance and organizational culture: A New Zealand study. *International Journal of Quality & Reliability Management*, 17(1), 14-26.
- Cortland, S. U. o. N. Y. (2012). Respect and Responsibility School Culture Survey. In Center for the 4th and 5th Rs (Ed.). www.cortland.edu/ch.
- Dalin, P. (1993). *Changing the School Culture*. London: Cassell.
- Davies, H., Nutley, S. M., & Mannion, R. (2000). Organisational Culture and Quality of Health Care. *Quality in Health Care*, 9, 10.
- Davies, J., Douglas, A., & Douglas, J. (2007). The effect of academic culture on the implementation of the EFQM Excellence Model in UK universities. *Quality Assurance in Education*, 15(4), 382-401.
- Deal, T. E., & Kennedy, A. A. (1982). *Corporate cultures: The rites and rituals of organizational life*. Reading, MA: Addison-Wesley Reading.
- Deal, T. E., & Peterson, K. D. (1990). *The Principal's Role in Shaping School Culture* edited by M. Shaskin & H. J. Walberg. Berkeley, California: McCutchan Publishing Company.
- Deal, T. E., & Peterson, K. D. (1999). *Shaping school culture: The heart of leadership*. San Francisco: Jossey-Bass.
- Deal, T. E., & Peterson, K. D. (2010). *Shaping school culture: Pitfalls, paradoxes, and promises*: John Wiley & Sons.
- Dean, J. W., & Bowen, D. E. (1994). Management theory and total quality: improving research and practice through theory development. *Academy of management Review*, 19(3), 392-418.
- Delobbe, N. H. (Ed.). (2002). *Measuring core dimensions of organizational culture: A Review of research and development of a new instrument*. Unpublished manuscript: Universite catholique de Louvain, Belgium.
- Denison, D. R. (1990). *Corporate culture and organizational effectiveness*: John Wiley & Sons.
- Denison, D. R. (1996). What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *Academy of management Review*, 21(3), 619-654.
- Denison, D. R., Nieminen, L., & Kotrba, L. (2012). Diagnosing organizational cultures: A conceptual and empirical review of culture. Effectiveness surveys. *European Journal of Work and Organizational Psychology*(ahead-of-print), 1-17.
- Denison, D. R., & Spreitzer, G. M. (1991). Organizational culture and organizational development: A competing values approach. *Research in Organizational Change and Development*, 5(1), 1-21.
- Detert, J. R., & Pollock, T. G. (2008). Values, Interests, and the Capacity to Act Understanding Professionals' Responses to Market-Based Improvement Initiatives in Highly Institutionalized Organizations. *The Journal of Applied Behavioral Science*, 44(2), 186-214.

- Detert, J. R., Schroeder, R. G., & Cudeck, R. (2003). The measurement of quality management culture in schools: development and validation of the SQMCS. *Journal of Operations Management*, 21(3), 307-328.
- Detert, J. R., Schroeder, R. G., & Mauriel, J. J. (2000). A framework for linking culture and improvement initiatives in organizations. *Academy of management Review*, 25(4), 850-863.
- Detert, J. R., Seashore Louis, K., & Schroeder, R. G. (2001). A culture framework for education: Defining quality values and their impact in US high schools. *School Effectiveness and School Improvement*, 12(2), 183-212.
- Diedrich, M. (2007). *Demokratische Schulkultur - Messung und Effekte*. Frankfurt/Main.
- Dow, D., Samson, D., & Ford, S. (1999). Exploding the myth: do all quality management practices contribute to superior quality performance? *Production and operations management*, 8(1), 1-27.
- Duncker, L. (1995). Schulkultur als Anspruch und Realisierung von Bildung. Anmerkungen zum pädagogischen Selbstverständnis der Schule. *Pädagogische Welt*, 10, 442-445.
- Easterby-Smith, M. (1988). Evaluating the development of corporate cultures: A case for naturalistic methods? *Management Education & Development*.
- Eder, F., & Dämon, K. (2010). 6. Organisationsklima, Schulkultur und Verhaltensauffälligkeiten bei Schülerinnen und Schülern. In J. Schmich & C. Schreiner (Eds.), *BIFIE-Report 4/2010: TALIS 2008 (2010): Schule als Lernumfeld und Arbeitsplatz. Vertiefende Analysen aus österreichischer Perspektive*.
- Ehlers, U.-D. (2008). Qualitätskultur für bessere Bildung. Hochschulen auf dem Weg von einer Kontroll- zu einer Qualitätskultur [Einzelbeitrag]. *bildungsforschung*, 1.
- Ehlers, U.-D. (2009). Understanding quality culture. *Quality Assurance in Education*, 17(4), 343-363.
- Erickson, F. (1987). Transformation and school success: The politics and culture of educational achievement. *Anthropology & Education Quarterly*, 18(4), 335-356.
- European University Association. (2005). Developing an Internal Quality Culture in European Universities. Report on the Quality Culture Project 2002-2003 *1st European Forum for Quality Assurance* (pp. 99). Munich: European University Association.
- European University Association. (2007). *Embedding Quality Culture in Higher Education*. Paper presented at the 1st European Forum for Quality Assurance, Munich.
- Fend, H. (1995). Schulkultur und Schulqualität. *Zeitschrift für Pädagogik, Beiheft*, 34, 85-98.
- Firestone, W. A., & Louis, K. S. (1999). Schools as cultures *Handbook of research on educational administration* (Vol. 2, pp. 297-322).
- Flynn, B. B., Schroeder, R. G., & Sakakibara, S. (1994). A framework for quality management research and an associated measurement instrument. *Journal of Operations Management*, 11(4), 339-366.
- Flynn, B. B., Schroeder, R. G., & Sakakibara, S. (1995). The impact of quality management practices on performance and competitive advantage. *Decision Sciences*, 26(5), 659-691.
- Freiberg, H. J., & Stein, T. A. (1999). Measuring, improving and sustaining healthy learning environments. *School climate: Measuring, improving and sustaining healthy learning environments*, 11-29.
- Frost, P., Moore, L. F., Louis, M. R., Lundberg, C. C., & Martin, J. (1995). *Reframing Organizational Culture*: Sage Publications.
- Gallea, D., & Ghobadian, A. (2004). An empirical investigation of the channels that facilitate a total quality culture. *Total Quality Management and Business Excellence*, 15(8), 1043-1067.
- Gallie, W. B. (1955). *Essentially contested concepts*. Paper presented at the Proceedings of the Aristotelian society.

- Gifford, B. D., Zammuto, R. F., & Goodman, E. A. (2002). The relationship between hospital unit culture and nurses' quality of work life. *Journal of Healthcare Management/American College of Healthcare Executives*, 47(1), 13.
- Ginevičius, R., & Vaitkūnaite, V. (2006). Analysis of organizational culture dimensions impacting performance. *Journal of business economics and management*, 7(4), 201-211.
- Göhlich, M. (2007). Schulkultur. In H. J. Apel & W. Sacher (Eds.), *Studienbuch Schulpädagogik* (pp. 104-120). Bad Heilbrunn: Klinkhardt.
- Goodman, E. A., Zammuto, R. F., & Gifford, B. D. (2001). The Competing Values Framework: Understanding the impact of organizational culture on the quality of work life. *Organization Development Journal*.
- Gordon, G. (2002). The Roles of Leadership and Ownership in Building an Effective Quality Culture. *Quality in Higher Education*, 8(1), 97-106. doi: 10.1080/13538320220127498
- Gordon, G. G., & DiTomaso, N. (1992). Predicting corporate performance from organizational culture. *Journal of management studies*, 29(6), 783-798.
- Green, T. J. (2012). TQM and organisational culture: how do they link? *Total Quality Management & Business Excellence*, 23(2), 141-157.
- Haffar, M., Al-Karaghoul, W., & Ghoneim, A. (2013). The mediating effect of individual readiness for change in the relationship between organisational culture and TQM implementation. *Total Quality Management & Business Excellence*, 24(5-6), 693-706.
- Halpin, A. W., & Croft, D. B. (1962). *The organizational climate of schools* (Vol. 11): Midwest Administration Center, University of Chicago.
- Hargreaves, A. (1986). *Two cultures of schooling: The case of middle schools*: Falmer Press Lewes.
- Hargreaves, A. (1994). *Changing teachers, changing times: Teachers' work and culture in the postmodern age*: Continuum International Publishing Group.
- Hargreaves, D. (1995). School culture, school effectiveness and school improvement. *School Effectiveness and School Improvement*, 6(1), 23-46.
- Harvey, L. (2009). *Deconstructing quality culture*. Paper presented at the A presentation given in a European Association for Institutional Research (EAIR) Annual Conference in Vilnius.
- Harvey, L., & Stensaker, B. (2008). Quality culture: Understandings, boundaries and linkages. *European Journal of Education*, 43(4), 427-442.
- Hatch, M. J. (1993). The dynamics of organizational culture. *Academy of management Review*, 18(4), 657-693.
- Heck, R. H., & Marcoulides, G. A. (1996). School culture and performance: Testing the invariance of an organizational model. *School Effectiveness and School Improvement*, 7(1), 76-95.
- Hejj, A. (1997). Empirische Methoden zur Erfassung der Schulkultur. In N. Seibert (Ed.), *Anspruch Schulkultur. Interdisziplinäre Darstellung eines neuzeitlichen Schulpädagogischen Begriffs* (pp. 97-118). Bad Heilbrunn: Klinkhardt.
- Helsper, W. (2000). Wandel der Schulkultur. *Zeitschrift für Erziehungswissenschaft*, 3(1), 35-60.
- Helsper, W. (2008). Schulkulturen-die Schule als symbolische Sinnordnung. *Zeitschrift für Pädagogik*, 54(1), 63-80.
- Helsper, W. (2010). Der kulturtheoretische Ansatz: Entwicklung der Schulkultur. In T. Bohl (Ed.), *Handbuch Schulentwicklung. Theorie - Forschungsbefunde - Entwicklungsprozesse - Methodenrepertoire* (pp. 106-112). Bad Heilbrunn
Verlag Julius Klinkhardt.
- Helsper, W., Böhme, J., Kramer, R.-T., & Lingkost, A. (1998). Entwürfe zu einer Theorie der Schulkultur und des Schulmythos - strukturtheoretische, mikropolitische und rekonstruktive

- Perspektiven. In J. Keuffer (Ed.), *Schulkultur als Gestaltungsaufgabe. Partizipation - Management - Lebensweltgestaltung* (pp. 29-75). Weinheim: Deutscher Studien Verlag.
- Hofstede, G. (1980). *Cultural consequences*. Beverly Hills: Sage.
- Hofstede, G. (2010/1991). *Cultures and Organizations - Software of the Mind - Intercultural Cooperation and Its Importance for Survival* (2nd ed.). New York: McGraw-Hill.
- Holtappels, H. G. (1995). Schulkultur und Innovation - Ansätze, Trends und Perspektiven der Schulentwicklung. In H. G. Holtappels (Ed.), *Entwicklung von Schulkultur. Ansätze und Wege schulischer Erneuerung* (pp. 6-36). Neuwied: Luchterhand.
- Holtappels, H. G. (2003). Entwicklung von Schulkultur und Schulqualität. In H. G. Holtappels (Ed.), *Schulqualität durch Schulentwicklung und Evaluation* (pp. 23-51). München: Luchterhand.
- Hoy, W. K. (2011). *Organizational climate and culture: A conceptual analysis of the school workplace / Improving schools: studies in leadership and culture, Chapter 5: Organizational Culture of Schools*. (Power Point).
- Hoy, W. K., Miskel, C. G., & Nelson, J. L. (1978). *Educational administration: Theory, research, and practice*: Random House New York.
- Irani, Z., Beskese, A., & Love, P. E. D. (2004). Total quality management and corporate culture: constructs of organisational excellence. *Technovation*, 24(8), 643-650.
- Ittner, H., & Kurz, S. (2012). Qualität und Kultur - eine Annäherung. Replik auf „Qualität braucht Kultur“ von JONACH et al. in dieser bwp@ Ausgabe 21. *bwp@ Berufs- und Wirtschaftspädagogik*, 21, 1-7.
- Jonach, M., Gramlinger, F., & Hartl, S. (2012). Qualität braucht Kultur. Das Quality Culture Konzept und seine Anwendungsmöglichkeiten im Kontext von (berufsbildenden) Schulen. *bwp@ Berufs- und Wirtschaftspädagogik - online*, 21, 11.
- Jung, T., Scott, T., Davies, H. T. O., Bower, P., Whalley, D., McNally, R., & Mannion, R. (2007). Instruments for the Exploration of Organisational Culture. www.scothub.org.
- Jung, T., Scott, T., Davies, H. T. O., Bower, P., Whalley, D., McNally, R., & Mannion, R. (2009). Instruments for Exploring Organizational Culture: A Review of the Literature. *Public Administration Review*, 69(6), 6.
- Kaynak, H. (2003). The relationship between total quality management practices and their effects on firm performance. *Journal of Operations Management*, 21(4), 405-435.
- Kells, H. R. (1995). Creating a culture of evaluation and self regulation in higher education organizations. *Total Quality Management & Business Excellence*, 6(5), 13. doi: 10.1080/09544129550035125
- Keuffer, J., Krüger, H.-H., Reinhardt, S., Weise, E., & Wenzel, H. (1998). *Schulkultur als Gestaltungsaufgabe*: Dt. Studien-Verlag.
- Keuffer, J., & Trautmann, M. (2010). Institution und Schulkultur. In T. Bohl (Ed.), *Handbuch Schulentwicklung. Theorie - Forschungsbefunde - Entwicklungsprozesse - Methodenrepertoire* (pp. 113-118). Bad Heilbrunn: Verlag Julius Klinkhardt.
- Klein, A. S., Masi, R. J., & Weidner, C. K. (1995). Organization Culture, Distribution and Amount of Control, and Perceptions of Quality An Empirical Study of Linkages. *Group & Organization Management*, 20(2), 122-148.
- Kluchert, G. (2009). Schulkultur (en) in historischer Perspektive. Einführung in das Thema. *Zeitschrift für Pädagogik*, 55(3), 326-333.
- Kotter, J. P., & Heskett, J. L. (1992). *Corporate Culture and Performance*: New York: Free Press.
- Kruse, S. D., & Louis, K. S. (1997). Teacher teaming in middle schools: Dilemmas for a schoolwide community. *Educational Administration Quarterly*, 33(3), 261-289.

- Kruse, S. D., & Seashore Louis, K. (2009). *Building Strong School Cultures. A Guide to leading change*: Corwin Press (SAGE).
- Lagrosen, S. (2003). Exploring the impact of culture on quality management. *International Journal of Quality & Reliability Management*, 20(4), 473-487. doi: 10.1108/02656710310468632
- Lam, M. Y., Poon, G. K. K., & Chin, K. S. (2008). An organizational learning model for vocational education in the context of TQM culture. *International Journal of Quality & Reliability Management*, 25(3), 238-255.
- Le Clear, E. A. (2005). *Relationships among leadership styles, school culture, and student achievement*. University of Florida. Retrieved from http://etd.fcla.edu/UF/UFE0013022/leclear_e.pdf
- Leithwood, K. A., & Louis, K. S. (Eds.). (1998). *Organizational Learning in Schools*: Swets & Zeitlinger Publishers.
- Lewis, D. (1996). The organizational culture saga-from OD to TQM: a critical review of the literature. Part 1-concepts and early trends. *Leadership & Organization Development Journal*, 17(1), 12-19.
- Lomas, L. (1999). The culture and quality of higher education institutions: examining the links. *Quality Assurance in Education*, 7(1), 30-34.
- Louis, K. S., & Wahlstrom, K. (2011). Principals as cultural leaders. *Phi Delta Kappan*, 92(5), 52-56.
- Loukkola, T., & Zhang, T. (2010). Examining Quality Culture: Part 1 - Quality Assurance Processes in Higher Education: European University Association.
- MacNeil, A. J., Prater, D. L., & Busch, S. (2009). The effects of school culture and climate on student achievement. *International Journal of Leadership in Education*, 12(1), 73-84.
- Maehr, M. L., & Fyans, L. J. (1990). *School culture, motivation, and achievement*: US Department of Education, Office of Educational Research and Improvement, Educational Resources Information Center.
- Mallak, L. A., Lyth, D. M., Olson, S. D., Ulshafer, S. M., & Sardone, F. J. (2003). Diagnosing culture in health-care organizations using critical incidents. *International Journal of Health Care Quality Assurance*, 16(4), 180-190.
- Marcoulides, G. A., & Heck, R. H. (1993). Organizational culture and performance: Proposing and testing a model. *Organization science*, 4(2), 209-225.
- Martin, J. (1992). *Cultures in organizations : three perspectives*: Oxford University Press.
- Martin, J. (2002). *Organizational culture : mapping the terrain*. Thousand Oaks, Calif. ; London: Sage.
- Martin, J., & Meyerson, D. (1988). Organizational cultures and the denial, channeling and acknowledgement of ambiguity. In L. R. Pondy, R. J. Boland & H. Thomas (Eds.), *Managing ambiguity and change* (Vol. 93, pp. 126). New York: John Wiley.
- Maslowski, R. (2001). *School culture and school performance: an explorative study into the organizational culture of secondary schools and their effects*. Enschede: Twente University Press.
- Maslowski, R. (2005). A review of inventories for diagnosing school culture. *Journal of Educational Administration*, 44(1), 6-35.
- Mauil, R., Brown, P., & Cliffe, R. (2001). Organisational culture and quality improvement. *International Journal of Operations & Production Management*, 21(3), 302-326.
- Maxwell, T. W., & Thomas, A. R. (1991). School climate and school culture. *Journal of Educational Administration*, 29(2).
- Metz, M. H. (1990). How social class differences shape teachers' work. *The contexts of teaching in secondary schools*, 40-107.

- Meyer, J. W., Boli, J., Thomas, G. M., & Ramirez, F. O. (1997). World society and the nation-state. *American journal of sociology*, 103(1), 144-181.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American journal of sociology*, 83(2), 340.
- Meyerson, D., & Martin, J. (1987). Cultural Change. An Integration of three different views. *Journal of management studies*, 24(6), 623-647.
- Milisiunaite, I., Adomaitiene, R., & Galginaitis, J. (2009). *Quality Management as a Tool for Quality Culture Embedment: Vilnius University Approach*. Paper presented at the 31st Annual EAIR Forum, Vilnius, Lithuania.
- Milton, P. M. (2011). *Educational Leadership and School Culture: A Study of the Perceptions of Effective Leadership*. (Dissertation), Clemson University.
- Morgan, G., Gregory, F., & Roach, C. (1997). Images of organization.
- Morrow, P. C. (1997). The measurement of TQM principles and work-related outcomes. *Journal of Organizational Behavior*, 18(4), 363-376.
- Müthing, K. (2010). *Organisationskultur im schulischen Kontext - theoriebasierter Einsatz eines Instrumentes zur Erfassung der Schulkultur*. (Dr.phil), TU Dortmund, Bochum.
- Naor, M., Goldstein, S. M., Linderman, K. W., & Schroeder, R. G. (2008). The Role of Culture as Driver of Quality Management and Performance: Infrastructure Versus Core Quality Practices*. *Decision Sciences*, 39(4), 671-702.
- Newton, J. (2000). Feeding the Beast or Improving Quality?: academics' perceptions of quality assurance and quality monitoring. *Quality in Higher Education*, 6(2), 153-163.
- Ouchi, W. G., & Wilkins, A. L. (1985). Organizational Culture. *Annual Review of Sociology*, 11, 457-483.
- Owlia, M. S., & Aspinwall, E. M. (1996). A framework for the dimensions of quality in higher education. *Quality Assurance in Education*, 4(2), 12-20.
- Pace, C. R., & Stern, G. G. (1958). An approach to the measurement of psychological characteristics of college environments. *Journal of Educational Psychology*, 49(5), 269.
- Pol, M., Hlouskova, L., Novotny, P., Vaclavikova, E., & Zounek, J. (2005). School Culture as an Object of Research. *Wydawnictwo Adam Marszalek*.
- Powell, T. C. (1995). Total quality management as competitive advantage: a review and empirical study. *Strategic management journal*, 16(1), 15-37.
- Prajogo, D. I., & McDermott, C. M. (2005). The relationship between total quality management practices and organizational culture. *International Journal of Operations & Production Management*, 25(11), 1101-1122.
- PREP Centre. Motivation and School Culture Survey. In P. C.-I. D. 287 (Ed.).
- Price, J. L., & Mueller, C. W. (1986). *Handbook of organizational measurement* (Vol. 18). New York: Pitman.
- Prosser, J. (1999). The evolution of school culture research. In J. Prosser (Ed.), *School culture* (pp. 1-14): Sage Publications Ltd.
- Prosser, J. (2007). Visual methods and the visual culture of schools. *Visual Studies*, 22(1), 13-30.
- Rad, A. M. M. (2006). The impact of organizational culture on the successful implementation of total quality management. *The TQM Magazine*, 18(6), 606-625.
- Reyes, P. (1990). Individual work orientation and teacher outcomes. *The Journal of Educational Research*, 327-335.
- Reynolds, P. D. (1986). Organizational culture as related to industry, position and performance: a preliminary report [1]. *Journal of management studies*, 23(3), 333-345.

- Rigsby, K. L. (1995). *Total quality management and the culture of a model elementary school: a case study*. University of South Florida.
- Roby, D. E. (2011). Teachers Leaders impacting School Culture. *Education*, 131(4).
- Sackmann, S. A. (2011). Culture and performance. In N. Ashkanasy, C. P. Wilderom & M. Peterson (Eds.), *The handbook of organizational culture and climate* (2nd. ed., pp. 188-224). Thousand Oaks, CA: Sage Publications. .
- Samson, D., & Terziovski, M. (1999). The relationship between total quality management practices and operational performance. *Journal of Operations Management*, 17(4), 393-409.
- Sarason, S. B. (1996). *Revisiting: "The culture of the school and the problem of change"*: Allyn and Bacon Boston.
- Schein, E. H. (1990). Organizational culture. *American psychologist*, 45(2), 109.
- Schein, E. H. (2010/1985). *Organizational culture and leadership* (3 ed. Vol. 2). San Francisco: Jossey-Bass.
- Schoen, L. T., & Teddlie, C. (2008). A new model of school culture: a response to a call for conceptual clarity. *School Effectiveness and School Improvement - An International Journal of Research, Policy and Practice*, 19(2), 129-153.
- Scott, T., Mannion, R., Davies, H., & Marshall, M. (2003). The quantitative measurement of organizational culture in health care: a review of the available instruments. *Health services research*, 38(3), 923-945.
- Scott, T., Mannion, R., Marshall, M., & Davies, H. (2003). Does organisational culture influence health care performance? A review of the evidence. *J Health Serv Res Policy*, 8(2), 105-117. doi: 10.1258/135581903321466085
- Sitkin, S. B., Sutcliffe, K. M., & Schroeder, R. G. (1994). Distinguishing control from learning in total quality management: a contingency perspective. *Academy of management Review*, 19(3), 537-564.
- Smart, J. C., & John, E. P. S. (1996). Organizational culture and effectiveness in higher education: A test of the culture typ^{and} and strong culture hypotheses. *Educational Evaluation and Policy Analysis*, 18(3), 219-241.
- Smircich, L. (1983). Concepts of culture and organizational analysis. *Administrative Science Quarterly*, 339-358.
- Smith, A. L. (2006). *A study of the relationship between school culture and standardized test scores*. (Doctor of Management in Organizational Leadership), University of Phoenix, Phoenix.
- Sousa, R., & Voss, C. A. (2002). Quality management re-visited: a reflective review and agenda for future research. *Journal of Operations Management*, 20(1), 91-109.
- Spencer, B. A. (1994). Models of organization and total quality management: a comparison and critical evaluation. *Academy of management Review*, 19(3), 446-471.
- Stamatelos, G. M., & Stamatelos, A. M. (2009). The role of engineering laboratories in the establishment of a quality culture in higher education in Greece. *European Journal of Engineering Education*, 34(1), 1-13. doi: 10.1080/03043790802699115
- Strang, D., & Meyer, J. W. (1993). Institutional conditions for diffusion. *Theory and society*, 22(4), 487-511.
- Svensson, M., & Klefsjo, B. (2010). Experiences from creating a quality culture for continuous improvements in the Swedish school sector by using self-assessments. *Total Quality Management & Business Excellence*, 11(4), 10. doi: 10.1080/09544120050008246
- Swidler, A. (1986). Culture in action: Symbols and strategies. *American sociological review*, 273-286.

- Taras, V. (2013). Catalogue of Instruments for Measuring Culture. http://vtaras.com/files/Culture_Survey_Catalogue.pdf.
- Taras, V., Roney, J., & Steel, P. (2009). Half a century of measuring culture: Review of approaches, challenges, and limitations based on the analysis of 121 instruments for quantifying culture. *Journal of International Management*, 15(4), 357-373.
- Tata, J., & Prasad, S. (1998). Cultural and structural constraints on total quality management implementation. *Total Quality Management*, 9(8), 703-710.
- Terhart, E. (1994). SchulKultur. Hintergründe, Formen und Implikationen eines schulpädagogischen Trends. *Zeitschrift für Pädagogik*, 40(5), 685-699.
- Terhart, E. (2013). Teacher resistance against school reform: reflecting an inconvenient truth. *School Leadership & Management*, 33(5), 486-500. doi: 10.1080/13632434.2013.793494
- Thompson, K. R. (1999). Confronting the paradoxes in a total quality environment. *Organizational Dynamics*, 26(3), 62-74.
- Trivellas, P., & Dargenidou, D. (2009). Organisational culture, job satisfaction and higher education service quality: The case of Technological Educational Institute of Larissa. *The TQM Journal*, 21(4), 382-399.
- Tsang, K. K. (2009). *Three approaches to understanding and investigating the concept of school culture and school culture phenomena: implications to school improvement and school effectiveness*. City University of Hong Kong.
- Van der Westhuizen, P. C., Mosoge, M. J., Swanepoel, L. H., & Coetsee, L. D. (2005). Organizational culture and academic achievement in secondary schools. *Education and Urban Society*, 38(1), 89-109.
- Van Houtte, M. (2005). Climate or culture? A plea for conceptual clarity in school effectiveness research. *School Effectiveness and School Improvement*, 16(1), 71-89.
- Vidal, J. (2003). Quality assurance, legal reforms and the European Higher Education Area in Spain. *European Journal of Education*, 38(3), 301-313.
- Wagh, R. F. (2002). Academic staff perceptions of administrative quality at universities. *Journal of Educational Administration*, 40(2), 172-188.
- Wilderom, C. P. M., Glunk, U., & Maslowski, R. (2000). Organizational culture as a predictor of organizational performance. In N. M. Ashkanasy, C. P. Wilderom & M. F. Peterson (Eds.), *Handbook of Organizational Climate and Culture* (pp. 193-209). Thousand Oaks, California: Sage.
- Wilkins, A. L., & Ouchi, W. G. (1983). Efficient cultures: Exploring the relationship between culture and organizational performance. *Administrative Science Quarterly*, 28, 468-481.
- Xenikou, A., & Furnham, A. (1996). A correlational and factor analytic study of four questionnaire measures of organizational culture. *Human Relations*, 49(3), 349-371.
- Yauch, C. A., & Steudel, H. J. (2003). Complementary use of qualitative and quantitative cultural assessment methods. *Organizational Research Methods*, 6(4), 465-481.
- Yeung, A., Brockbank, J. W., & Ulrich, D. (1991). Organizational culture and human resource practices: an empirical assessment. *Research in organizational change and development*, Greenwich, CT: JAI Press Inc.
- Yong, K. T., & Pheng, L. S. (2008). Organizational culture and TQM implementation in construction firms in Singapore. *Construction Management and Economics*, 26(3), 237-248.
- Yorke, M. (2000). Developing a quality culture in higher education. *Tertiary Education & Management*, 6(1), 19-36.

Zeitz, G., Johannesson, R., & Ritchie, J. E. (1997). An employee survey measuring total quality management practices and culture development and validation. *Group & Organization Management*, 22(4), 414-444.

Zhu, C., Devos, G., & Li, Y. (2011). Teacher perceptions of school culture and their organizational commitment and well-being in a Chinese school. *Asia Pacific Education Review*, 12(2), 319-328.

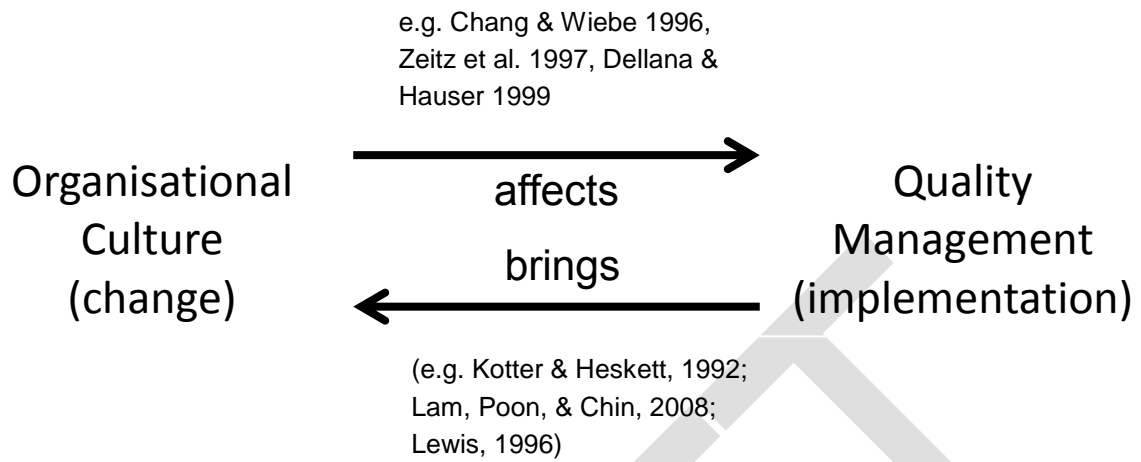
Zu, X., Robbins, T. L., & Fredendall, L. D. (2010). Mapping the critical links between organizational culture and TQM/Six Sigma practices. *International Journal of Production Economics*, 123, 21. doi: 10.1016/j.ijpe.2009.07.009

Zulu, N., Murray, L., & Strydom, J. F. (2004). Quality, culture and change. *Quality in Higher Education*, 10(3), 207-217. doi: 10.1080/1353832042000299496

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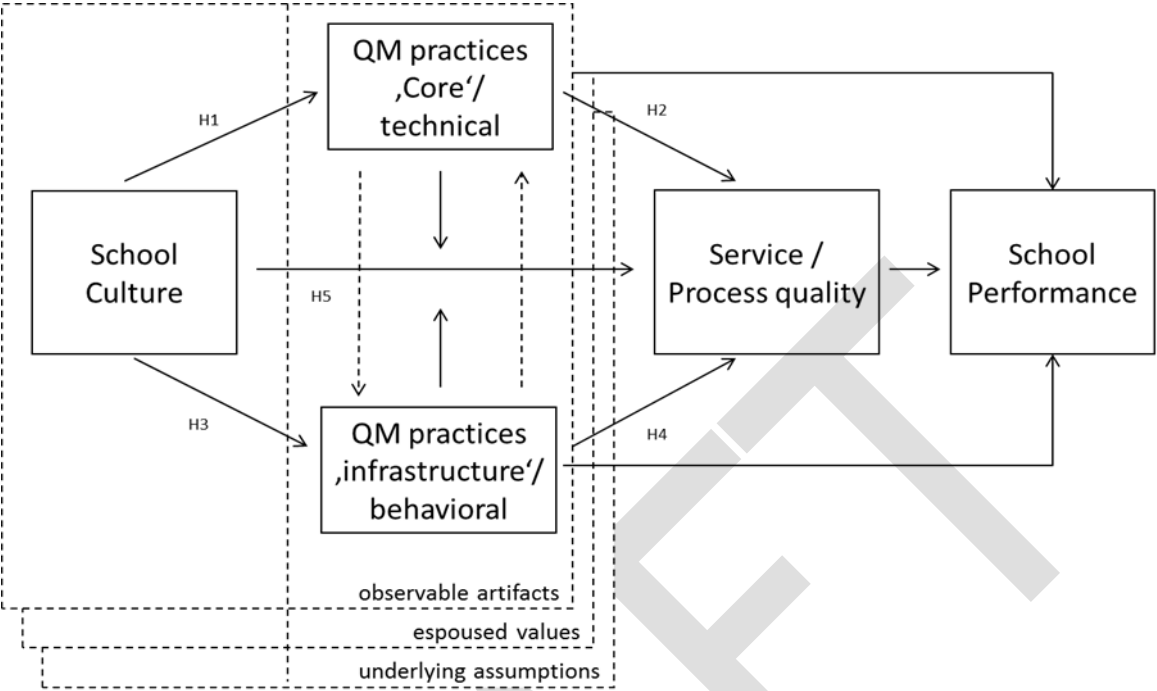
7 ANNEXES

Diagram 2: The causal direction of the relationship between Quality Management and Organisational Culture



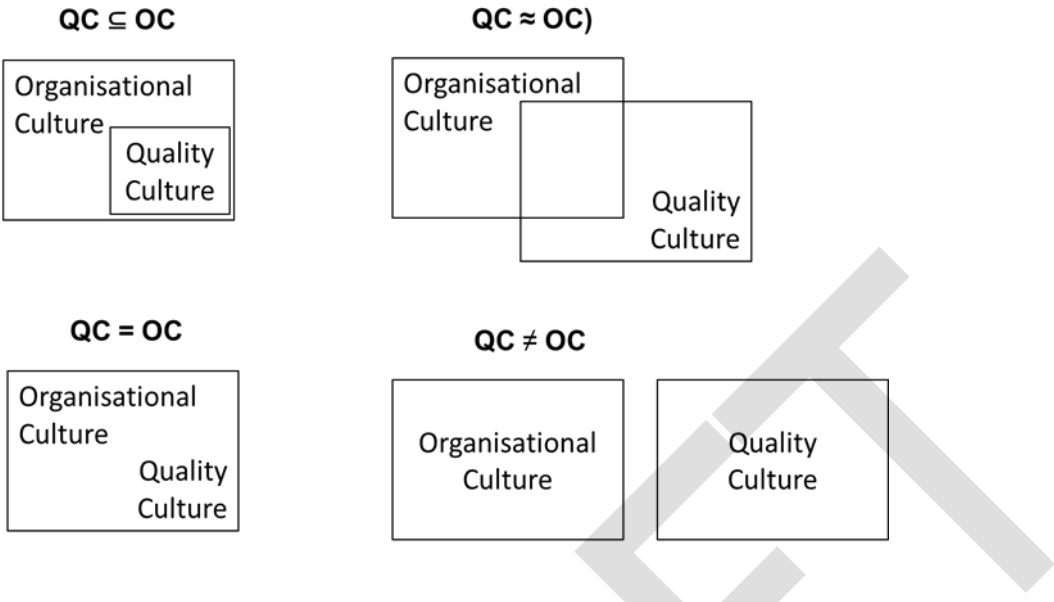
Source: Author

Diagram 3: An elaborated model of the relation of school culture, quality culture and practice and performance



Source: Author, ideas taken from Naor et al. (2008), Schein (1990), (Detert et al. (2001))

Diagram 4: The 'unclear boundary' between Quality (Management) Culture and Organisational Culture and their 'set relations'



Source: Authors

Diagram 5: Culture and TQM - Areas of overlap

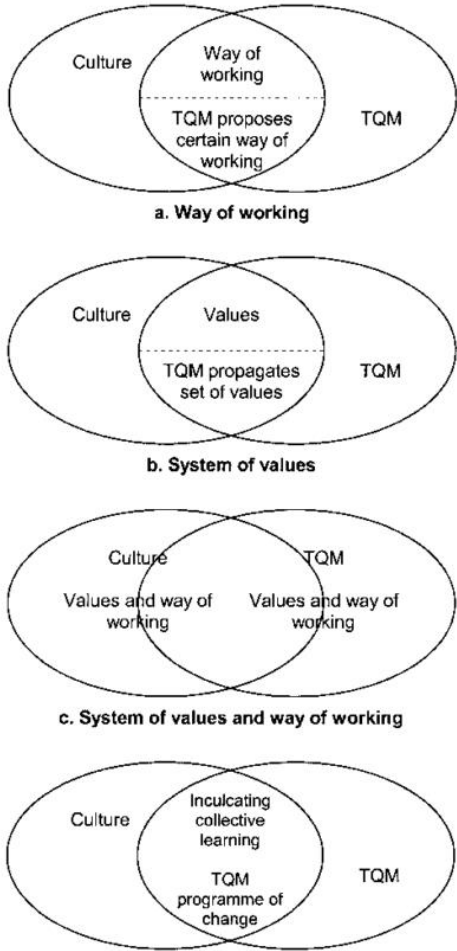
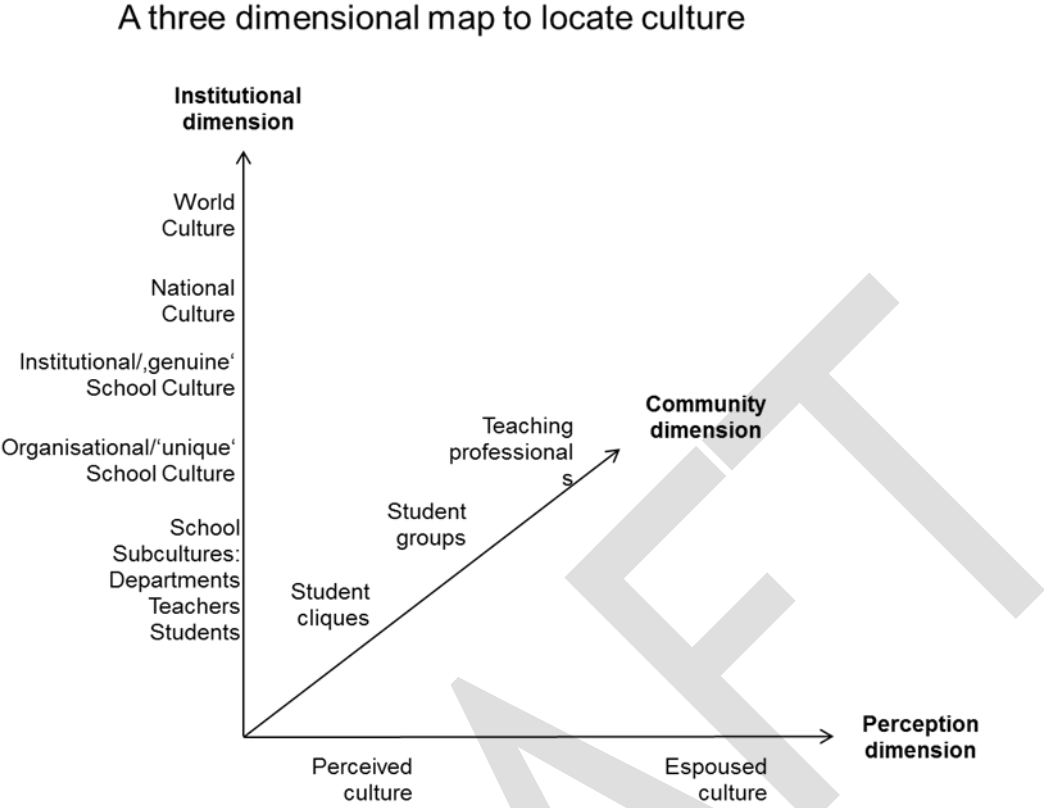


Figure 1. Culture and TQM: areas of overlap

Source: Gallear, D., & Ghobadian, A. (2004)

Diagram 6: Ways of locating the school culture we speak about



Source: Author

Table 6: Functions of school culture

<p>Tsang (2009, p. 8) with reference to Smircich (1983), (Cheng (1993); Hoy, Miskel, & Nelson, 1978) and Burrello and Reitzug (1993)</p>	<p>Deal and Peterson (2010, p. 12ff.) providing a number of references for each function listed</p>
<ul style="list-style-type: none"> – conveying a sense of identity for school members; – facilitating the generation of school commitment; – enhancing social system stability; – serving as a sense-making device that can guide and shape the behavior and performance of school members; – creating a boundary-defining function and distinguishing among organisations; – binding the organisation together; – providing appropriate standards for behaviors; and – serving as a soft control system to organisational members. 	<ul style="list-style-type: none"> – Culture foster school effectiveness and productivity (Leithwood & Louis, 1998) – Culture improves collegiality, collaboration, communications, and problem solving practices (Sharon D Kruse & Louis, 1997) – Culture promotes innovations and school improvement (Deal & Peterson, 1990) – Culture builds commitment and kindles motivations (Schein, 2010/1985) – Culture amplifies the energy and vitality of school staff, students, and community – Culture focuses attention on what is important and values (Deal & Kennedy, 1982)

Table 7: Overview on Instruments to explore school culture
(A= Instrument/Items available; B= Information about the development and testing available)

	Method	Development	Approach	Purpose	
School Culture Survey (Edwards, 1996; Saphier & King, 1985; Schweiker-Marra, 1995)	quantitative	4 point Likert scale, 24 items		Dimensional	Diagno
Questionnaire on the Cultures of Organisations (Handy & Aitken, 1986)					
School Work Culture Profile (Snyder, 1988)	quantitative	5 point Likert scale, 60 items		Typological	
Organisational Cultural Assessment Inventory (Steinhoff & Owens, 1989)					
Professional Culture Questionnaire for Primary Schools (Staessens, 1990, 1991b)	Quantitative	4 point Likert scale, 28 items	empirical	Typological	Diag
School Culture Assessment Questionnaire and School District Culture Assessment Questionnaire (Sashkin, 1990)					
School Culture Survey (Maehr & Fyans, 1990)					
Organisational Value Orientation Questionnaire, Shaw and Reyes' (1992)	quantitative	5 point Lickert, scale, 10 items		One-dimensional	Diag
School-classroom culture audit (Phillips, 1993)					
Organisational Ideology Questionnaire Cheng's (1993, 1996)	quantitative			One-dimensional	Form
School Culture Scale (Higgins-D'Alessandro, 1995; Higgins-D'Alessandro & Sadh, 1998)	quantitative	25 items	conceptual		Diag
School Culture Inventory (Jones, 1996)					
Images of School through Metaphor questionnaire (Grady, Fisher, & Fraser, 1996)					
School Cultural Elements Questionnaire (R. F. Cavanagh & Dellar, 1996; Robert F. Cavanagh & Dellar, 1997(Tsang, 2009))	quantitative	5 point Likert Scale, 42 items		Dimensional	format

Table 7 contd.

	Method	Development	Approach	Purpose
Questionnaire for measuring organisational culture in primary schools (Houtveen et al., 1996)	quantitative	6 point Likert scale, 123 items	conceptual	Dimensional
School Values Inventory (Pang, 1996)	quantitative	7 point Likert scale, 61 items		Dimensional
Assoziations- und Inhaltsanalyse von Schulkultur (Hejj, 1997)	qualitative / quantitative			
School Culture Survey (Gruenert and Valentines, 1998)	quantitative	5 point Likert scale, 60 items	conceptual & empirical	dimensional form
School Culture Typology offered by the West Virginia Department of Education (based on Fullan and Hargreaves (1996) and Deal and Peterson (1999)				
School Culture Inventory (Maslowski, 2001)				
School Culture Audit (Wagner & Masden-Copas, 2002)	qualitative / quantitative			diagn
School Quality Management Culture Survey SQMCS (Detert et al., 2003)	quantitative		conceptual & empirical	dimensional diagn
Demokratische Schulkultur (Diedrich, 2007)				
Quick School Culture Inventory (Sharon D. Kruse & Seashore Louis, 2009, p. 68)	quantitative	4 point Likert scale, 19 items		
School Culture Review (Roby, 2011)	quantitative		conceptual	dimensional form
(Cheng, 2012)				
Measuring School Culture Survey (Ney, 2013)				