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Organizational cultures in education: Theory-based use of an instrument for identifying school culture

Abstract

To date, educational research has not provided a sufficiently consistent theoretical foundation for the term 'school culture'. This study takes a first step to address this research gap by outlining a theoretical underpinning for empirically examining characteristics of school culture over time. Based on Cameron and Quinn's (2006) Organizational Culture Assessment Instrument (OCAI), a questionnaire was designed to describe different types of school culture (OCAI-SK; Müthing, 2013). This questionnaire was given to 40 German schools and filled out by 1,058 teachers at the first point of measurement and by 773 teachers at the second point of measurement. The findings show that the OCAI-SK is a reliable instrument which can be used to investigate school culture. The use of chi-square tests revealed that school cultures were quite stable over time, whereas a Latent Class Analysis (LCA) revealed four main cultural profiles of schools. The implications of these findings are discussed.

Keywords

Assessment; OCAI-SK; OCAI; Organizational culture; School culture

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Organisationskultur im schulischen Kontext: Einsatz eines theoriebasierten Instruments zur Erforschung von Schulkultur

Zusammenfassung

Die bisherige Diskussion des Schulkulturkonzepts im Diskurs der Erziehungs-wissenschaft war nicht ausreichend, um ein durchgängig konsistentes theore-tisches Bild skizzieren zu können. Trotz dieser Einschränkungen präsentiert die vorliegende Studie einen empirischen Zugang, der basierend auf dem theoretisch und empirisch elaborierten Competing Values Framework (Quinn & Rohrbaugh, 1983) und dem daran anlehnenden Organizational Culture Assessment Instrument (OCAI; Cameron & Quinn, 2006) versucht, ein für Schulen neu ent-wickeltes Messinstrument (OCAI-SK; Müthing, 2013) zu erproben, um schließ-lich charakteristische Kulturmerkmale der Einzelschulen über die Zeit zu beschrei-ben. Der OCAI-SK wurde in 40 deutschen Schulen von 1058 Lehrern zum ersten und 773 Lehrern zum zweiten Messzeitpunkt beantwortet. Es stellte sich heraus, dass der OCAI-SK als reliables Instrument zur Beschreibung von Schulkultur be-titelt werden kann. Durch die Verwendung eines χ^2-Tests wurde festgestellt, dass die Kulturen der Schulen über die Zeit recht stabil waren, während eine Latente Klassenanalyse (LCA) die vier häufigsten Schulkulturprofile ausfindig machen konnte. Die Implikationen dieser Ergebnisse werden diskutiert.

Schlagworte

Messinstrument; OCAI-SK; OCAI; Organisationskultur; Schulkultur

1. Introduction

Discussions on the concept of school culture have been an integral part of educa-tional research during the past fifty years. In fact, several studies on school culture were already conducted in the early twentieth century (Waller, 1932; Brookover, 1955). Recent studies have yet again revealed the relevance of this concept in ed-ucational discussions today, especially concerning findings which describe the in-fluence of school culture on pertinent outcome school variables such as student achievement (Kythreotis, Pashiardis, & Kyriakides, 2010; Gaziel, 2001; Heck & Marcoulides, 1996). In addition, it is assumed that a school's culture affects the de-grees of motivation, coordination, and integration (Dill & Hügler, 1987) of all its school members (i.e. students, teachers and principal).

Unfortunately, the concept of culture used in educational studies has been de-fined in various ways, often without a clear distinction when compared to other theoretical constructs (Lumby & Foskett, 2011). There have been a few attempts to theoretically differentiate these constructs (van Houtte, 2005; Schoen & Teddlie,

2008), yet these attempts resulted in a variety of school culture measures with unclear origins.

The ambiguities inherent to the concept of *school culture* may also reflect the general lack of clarity regarding the construct of *culture*. Already in 1952, Kroeber and Kluckhohn found 164 varying definitions of the term *culture*. Despite of some differences, one can nevertheless identify similarities in these definitions. In most definitions, shared values, meanings, symbols and beliefs, as well as the resulting actions related to a school's social environment have been outlined as defining features (van Houtte, 2005; Auernheimer, 2002; Hörning, 2004).

Taking the background of these described theoretical difficulties into account, we suggest in this paper a methodological perspective that provides researchers a tool to reflect school culture on the basis of an empirically founded model. In doing so, we refer to the *Competing Values Framework*, which was developed by Quinn and Rohrbaugh (1983) as well as to the related and extensively verified *Organizational Culture Assessment Instrument* (OCAI; Cameron & Quinn, 2006). These methods were used to do a final check on the newly developed instrument (OCAI-SK; Müthing, 2013) based on a sample of 40 German schools.

To describe this procedure adequately, first the concepts of *school culture* and *organizational culture* will be outlined. Subsequently, the development of the OCAI-SK will be delineated. Finally, the scale quality and the appearance of the varying cultural types of 40 analyzed schools will be presented, evaluated and discussed.

2. School culture

The concept of *school culture* has been a controversial topic in educational science in recent decades. With the exception of a few early field studies, which were inspired by anthropological or sociological perspectives (Waller, 1932; Brookover, 1955; Sarason, 1971), the intensive exploration of school culture first started in the 1980s when organizational science broadly adopted the cultural perspective from the field of anthropology (Wren, 1999).

In the late 1990s and in the early 2000s, the concept of school culture has been somewhat undermined by the widespread use of the concept of *climate* drawn upon in international large-scale assessments (Bos, Gröhlich, Dudas, Guill, & Scharenberg, 2010; Bonsen, Lintorf, Bos, & Frey, 2008; Hornberg, Bos, Buddeberg, Potthoff, & Stubbe, 2007; Baumert, Stanat, & Demmrich, 2001) and its redundant usage with the concept of culture. In response, there have been several attempts to reanimate the concept of school culture; thereby, in particular the discussion between van Houtte (2005) and Schoen and Teddlie (2008) has gained a lot of attention among educational science researchers.

Van Houtte, who compared the concept of school culture with the concept of school climate, emphasized that school culture can be understood as a clearer but

more narrow concept, since it mainly reveals aspects of individual and collective beliefs, assumptions, thoughts, etc. The concept of climate, however, relates to a broader, complex spectrum of environmental quality factors (van Houtte, 2005).

Schoen and Teddlie (2008) argued that the concepts of school culture and school climate do not differ with respect to their scope, but rather regarding their *level* of application. They transferred Schein's theory of organizational culture, that differentiates organizatonal culture into *artefacts*, *espoused values* and *basic underlying assumptions* (Schein, 1992), to that of culture in the educational context. Based on this theory, they stated the following: 1) school culture would correspond to the level of *basic underlying assumptions*; 2) school climate corresponds to the level of *espoused beliefs;* and 3) cultural symbols correspond to the level of *artifacts* (Schoen & Teddlie, 2008).

Although van Houtte (2005) and Schoen and Teddlie (2008) provide some interesting points for understanding the concept of school culture, their theoretical discussion can hardly be viewed as thoroughly thought through. This lack of coherence also results from the fact that the relationship between the two positions is unclear. Despite of, or rather because of this unclear theoretical foundation regarding school culture, we wish to introduce a new way of measuring school culture on the basis of organizational theory. This way draws upon van Houtte's approach which focused on school culture in terms of beliefs, assumptions and thoughts. Environmental quality factors are intentionally neglected in our method. We do not agree with Schoen and Teddlie, who possibly would argue that such an instrument measures elements of school culture, school climate and school symbols.

Based on significant theories regarding organizational culture, the next chapter reveals more precisely the theoretical approach we have chosen to describe school culture, and why it has been selected.

3. Organizational culture

Looking at organizational culture, the question arises whether there is any legitimacy in transferring the concept of culture to organizations. An organization can be understood as "a collection of individuals formed into a coordinated system of specialized activities for the purpose of achieving certain goals over some extended period of time" (Middlemist & Hitt, 1988). Every collective transports and shares meanings and values through direct or indirect communication between individuals (Luhmann & Fuchs, 1988). Based on recurring features in definition of culture, it can be assumed that organizations also have a form of culture. Along these lines, Pettigrew (1979) stated that organizational culture could be investigated through the main cultural terms of "beliefs, ideology, language, ritual, and myth" (p. 572).

Despite the assumption that every organization features cultural elements, it has to date not been sufficiently clarified how many cultures can be found in an organization. Referring to this question, Meyerson & Martin (1987) postulated a per-

spective that synthesizes holistic and fragmentistic standpoints to state that every organization has several subcultures, but also shows some general values that are valid for all of them.

Several approaches, including holistic and fragmentistic ones, have been used to describe cultures within organizations. A holistic perspective has already been outlined above (Schein, 1992). A fragmentistic theoretical point of entry has been developed by Hofstede (1980), who determined the forces that have an effect on organizational cultures on the basis of values that were shaped by the surrounding society. In his analysis, decisive factors were related to the social allocation of power, how uncertainty was handled, the relationship between the individual and their community, gender roles and time orientations. Many other theoretical perspectives have been designed to deconstruct and describe organizational culture as well (e.g., Harris, 1994; Denison, 1990; Johnson, 1988; Deal & Kennedy, 1982).

One of the approaches, which is highlighted in the following, is the approach of Cameron and Quinn (2006). It uses the organizational beliefs about the 'right' way towards organizational success to explain the cultural orientation of an organization. At the same time it complies with the objectives of Meyerson and Martin (1987) through being able to display conflicting cultural tendencies while simultaneously revealing the overall-culture. Originally, Campbell, Brownas, Peterson, and Dunette (1974) tried to explicate the theories of effectiveness in organizations. For this purpose, they found 39 different descriptive criteria regarding organizational effectiveness in the scientific literature. However, since this number of criteria was too extensive to be of direct use for an applied research in organizations, Quinn and Rohrbaugh (1983) developed the *Competing Values Framework*, created through an empirically founded cluster analysis of Campbell's determinants. It implies two distinct dimensions (control vs. flexibility; internal vs. external focus), which can be used to describe the basic target dimensions within organizations. When juxtaposing these dimensions, a four-way table emerges (see Figure 1). This table was employed by Cameron and Quinn (2006), who developed the OCAI.

The OCAI uses these four value quadrants, developed by Quinn and Rohrbaugh (1983), applying them to six organizational spheres: *Dominant Characteristics*, *Organizational Leadership*, *Management of Employees*, *Organization Glue*, *Strategic Emphases* and *Criteria of Success*. The goal is to diagnose the dominant value patterns of an organization. At the same time, organizational members are supposed to specify how they would like their organizational culture to be (Cameron & Quinn, 2006) in order to obtain impulses for organizational change.

There have been several controversies concerning quantitative measurement of culture. Ashkanasy, Broadfoot, and Falkus (2000), for example, criticized that quantitative research methods are deficient in measuring organizational culture in its full complexity. Similar remarks have also been made in educational research literature (Hargreaves, 1992). Thus, coverage of quantitative results – including the OCAI – should always be understood knowing that these can not display the organizational culture's full breadth, but only its essential characteristics (Martin & Behrends, 1999).

Figure 1: Competing Values Framework created by Quinn & Rohrbaugh (1983)
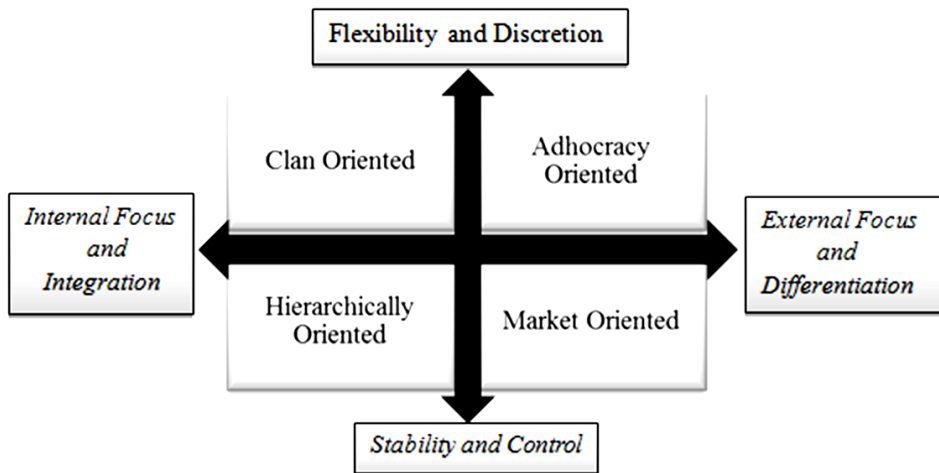
One can at least question the extent to which organization-related measures can be transferred to the school domain. Some authors have argued that schools can be defined as organizations (Bowen, 2004; Rolff, 1995; Willower & Carr, 1965). From this standpoint, it can be assumed that school culture can be measured similarly to that of organizational culture. However, it should still be taken into account that schools offer some specific organizational characteristics. For example they are committed to the educational function of society (Drepper & Tacke, 2012) and cultivate individual students instead of creating products. Therefore, the primary working procedures of teachers cannot be directly improved in the way that technological procedures can. These and other specific characteristics that appear relevant in Germany concerning fewer operational goals and less competition (Rolff, 1995), were considered during our adaption of the OCAI to the school domain.

It is to note that the *Competing Values Framework* (Quinn & Rohrbaugh, 1983) has already been cited earlier in research on school culture (Maslowski, 2001; Houtveen, Voogt, Van der Vegt, & Van de Grift, 1996). Yet, previous work did not generate a clear and distinctive scale that pictures the four emerging cultural types in different organizational spheres as seen in the OCAI (Cameron & Quinn, 2006).

4. Method

4.1 Participants

In order to test the instrument for assessing school culture in German-speaking nations, the adapted version of the OCAI (OCAI-SK; Müthing, 2013) was used in the school developmental project *Schulen im Team* (*Schools in Teams*). 40 schools from the federal state of North Rhine-Westphalia were surveyed at two different points in time (2007 and 2009) with a focus on school culture. Since the focus of

the OCAI is on school staff, each participating school staff member was given the OCAI-SK. A total of 1,058 (2007) and 773 (2009) teachers were surveyed, with an average of 26.4 (2007) and 19.3 (2009) teachers per school.

The majority of the schools involved in the project were *Gesamtschulen* (37 %) (comprehensive secondary school: all tracks) and *Gymnasien* (30 %) (secondary school: highest track with qualification for university), although *Realschulen* (12 %) (secondary school: middle track), *Grundschulen* (8 %) (elementary schools), *Hauptschulen* (8 %) (secondary school: lowest track) and *Förderschulen* (5 %) (school for the students with special needs) also participated.[1] This distribution varies from that of the entire school population in North Rhine-Westphalia. In general, the percentages of several of the school types are lower in average (*Gesamtschulen* = 3.39 %, *Gymnasien* = 9.69 %, *Realschulen* = 8.59 %), whereas other school types have considerably higher percentages (*Grundschulen* = 49.57 %, *Hauptschulen* = 10.32 %, *Förderschulen* = 11.18 %) (Ministerium für Schule und Weiterbildung NRW, 2010). Therefore, this is not a representative sample, at least with regard to the school types.

4.2 Measures

The OCAI (Cameron & Quinn, 2006), which was originally created for organizations, was adapted to investigate school culture. Therefore, a panel of school development researchers, teachers, as well as Anglicists were asked to transfer the particular items of the OCAI to the school domain. Apart from a general linguistic adaptation due to the special characteristics of educational institutions (i.e. the terms "organization" and "people" being replaced by "school" and "college"), some items regarding the definition of organizational success and competitive factors were amended. The orientation on efficiency was no longer focused on manufacturing growth and market advantage but on student numbers, graduation rates and curriculum development. In addition, the questionnaire was slightly reduced in length, leaving out the aspect of a school culture's future development as it was not of interest for assessing the status quo. The newly developed OCAI-SK (Müthing, 2013) shows specific types of school culture informed by the theoretical development of the *Competing Values Framework* by Quinn and Rohrbaugh (1983). These types of school culture are based on different sets of organizational values which also include processes of collective teacher decisions and aspects regarding the style of school leadership and management, an aspect which Dumay (2009) highlighted as key indicator for a school's organizational culture. It should be noted that the OCAI-SK provides ipsative and, therefore, dependent data. The six OCAI-SK items are scored using a 100-point range system regarding four different statements which relate to the four cultural types and to the extent to which each state-

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1   More detailed information about the German educational system can be found at http://www.kmk.org/fileadmin/doc/Dokumentation/Bildungswesen_en_pdfs/appendix.pdf

ment corresponds to the respective workplace. Although the use of such ipsative data is sometimes criticized in literature, according to Cameron & Quinn (2006) and other authors (e.g., Kayes, 2005; Saville & Willson, 1991) they are nevertheless widely accepted for checking the internal consistency of instruments such as the OCAI, given that a previously tested factor structure exists upon which the instrument is based. This condition is given in case of the OCAI-SK. One concrete item per cluster is shown in Table 1.

Table 1: Ipsative items of the OCAI-SK and the corresponding cultural class for the sphere "Dominant Characteristics"

Item	German content	English meaning	Cultural class
1	Unsere Schule ist ein sehr persönlicher Ort. Sie ist wie eine große Familie. Das Kollegium teilt viel (Privates/Persönliches) miteinander.	Our school is a very personal place. It is like an extended family. The college shares many (private/personal) issues.	A
2	Unsere Schule ist ein sehr dynamischer und erkundungsfreudiger Ort. Das Kollegium ist bereit, Risiken/neue Wege auf sich zu nehmen.	Our school is a very dynamic and joyful place, where you can explore a lot. The college is willing to take risks/to find new ways to be.	B
3	Unsere Schule ist sehr ergebnisorientiert. Wichtig ist es vor allem, gute Quoten (Aufnahme & Übergange etc.) zu erreichen. Das Kollegium achtet darauf, konkurrenzfähig zu sein.	Our school is very results-oriented. It is important to generate high student performance. The college takes care to keep the possibility of being competitive.	C
4	Unsere Schule ist ein sehr geregelter und strukturierter Ort. Formale Abläufe (Schulregeln, Klassenarbeiten, Erlasse etc.) regeln im Allgemeinen die Handlungen des Kollegiums.	Our school is a very controlled and structured place. Formal processes (school rules, class work, decrees etc.) generally govern what the college does.	D

Note. A = Clan, B = Adhocracy, C = Market, D = Hierarchy

5. Results

5.1 Reliability of OCAI-SK

First, the OCAI-SK scales were checked in order to secure the instrument. The following table shows the scale characteristics of the four items per scale for both measurement points.

Table 2: Reliability results of OCAI-SK in comparison to the original instrument OCAI (Quinn & Spreitzer, 1991)

Culture Scale	Measurement Point	M	SD	α	var	n
Clan (A)	2007	28.51	11.61	.84	55.87	1.058
	2009	29.27	11.77	.84	55.97	773
	Original (OCAI)	n.a.	n.a.	.74	n.a.	n.a.
Adhocracy (B)	2007	23.38	8.46	.77	46.95	1.058
	2009	23.19	8.43	.78	47.59	773
	Original (OCAI)	n.a.	n.a.	.79	n.a.	n.a.
Market (C)	2007	22.33	9.29	.76	47.54	1.058
	2009	22.69	9.75	.77	48.59	773
	Original (OCAI)	n.a.	n.a.	.71	n.a.	n.a.
Hierarchy (D)	2007	25.77	10.96	.80	50.06	1.058
	2009	24.86	24.86	.82	52.62	773
	Original (OCAI)	n.a.	n.a.	.73	n.a.	n.a.

Based on the scale values, a reliable measurement of the target dimensions (cultural aspects) can be assumed. Cronbach's α exceeds all four cultural scales with regard to the quality, specified as a critical value of α = .70 (Spector, 1992) for both measurement points. As can be seen in the α-column, the adapted version surpasses the reliability of the original scale in three out of four cases, with the exception of the adhocracy scale. The lower α-value of the adhocracy scale is probably an indication of a different kind of understanding regarding terms and phrases like *innovative* and *ready to take risks* in schools when compared to economic organizations. At the same time, it points toward the strict governmental supervision of schools in Germany.

However, it can be stated that by adapting the OCAI (Cameron & Quinn, 2006) to form the OCAI-SK (Müthing, 2013), a reliable instrument is now available which can be used to specifically describe school culture in German-speaking countries. Furthermore we expect its translation into any other language to be an easy one.

## 5.2 Distribution of the cultural types and temporal stability

With regard to the *highest culture mean per school*, 17 schools were clan-oriented at the first measurement point (nine of these being significant, with $p \leq .05$), four schools were rated as adhocracy, and six schools as market. 13 schools were identified as schools with a hierarchical culture (four of them being significant, with $p \leq .05$) as seen in Figure 2.

At the second measurement point the number of clan-oriented schools had increased to 23 (12 of them were significant, with $p \leq .05$), whereas the number of adhocracy schools had decreased to one. The number of schools which were rated as market schools increased to eight (1 of them being significant, with $p \leq .05$),

while the number of schools described as *hierarchy* decreased to eight (1 of them being significant, with $p \leq .05$).

At both measurement points, the clan culture has been the most distinctive one, whereas the investigated schools tended to rate their institutions as *adhocratic* least.

Figure 2: Frequencies of different cultures based on the highest cultural mean per school (2007 & 2009)

School Culture

■ Clan □ Adhocracy ■ Market ■ Hierarchy

N = 40
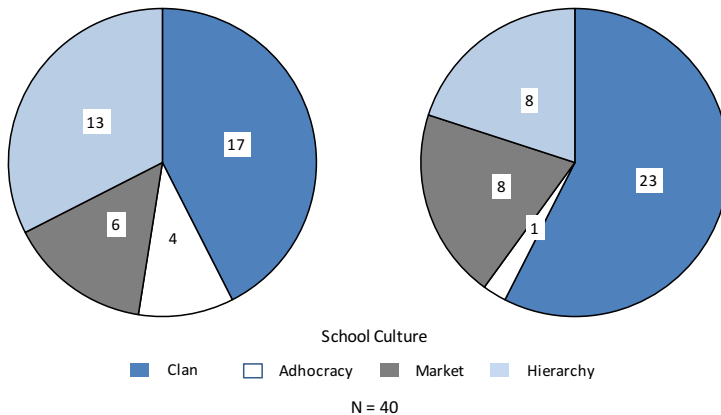
In addition to calculating culture-type significance, the χ^2-test was used to differentiate between meaningful variations and random fluctuations in the cultural distribution over time. Therefore, we compared those particular schools with themselves over time, which showed at least one slightly significant ($p \leq .10$) cultural type at one measurement point. Of these 21 schools, eight schools replicated their cultural pattern (the value being significant at $p \leq .05$), whereas 11 schools showed a similar pattern tendency in both surveys (the value being significant at $p \leq .10$). These results indicate a relatively high cultural stability over time, where at least a slightly significant value of over 90 % of the investigated 21 schools is visible.

5.3 Generation of distinctive cultural patterns

Up to this point we exclusively performed calculations using the highest cultural mean per school; similarly high culture values within one school that could be called "mixed culture" had to be neglected. To explicitly include and differentiate the information emerging from the mixture of cultural orientations, Latent Class Analysis (LCA) was used to categorize major cultural profiles for the four types of school culture. By using LCA, latent categorical variables could be identified (Sibley & Liu, 2013).

Figures 3 and 4 show the appearance of four main cultural profiles through applying the LCA with regard to the four culture types and their six investi-
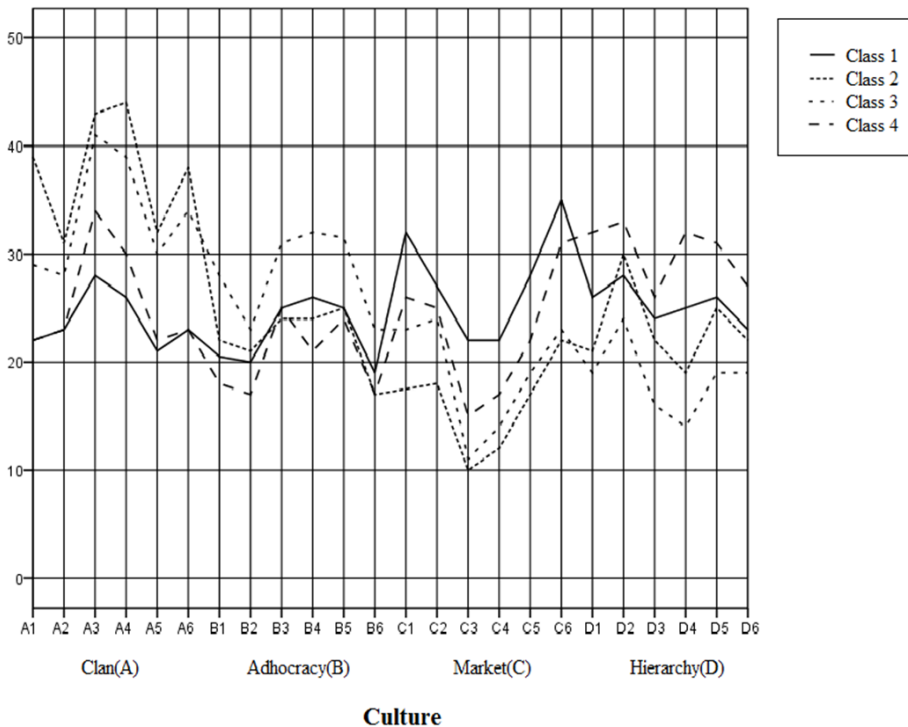
gated items: 1) *Dominant Characteristics*, 2) *Organizational Leadership*, 3) *Management of Employees*, 4) *Organization Glue*, 5) *Strategic Emphases* and 6) *Criteria of Success*.

Figure 3: Cultural profiles OCAI-SK 2007
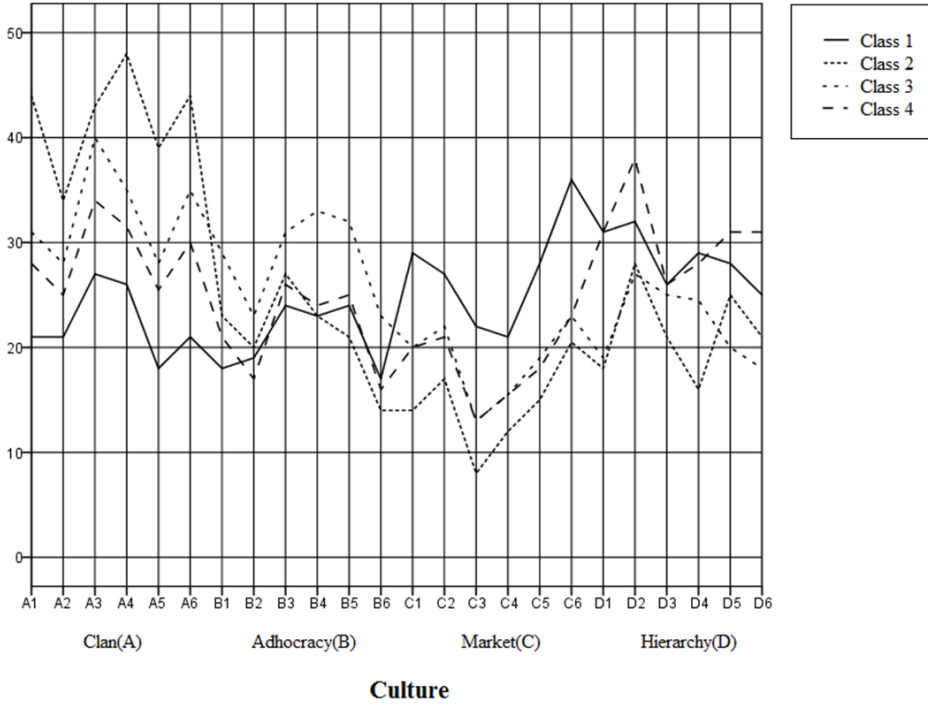
data aggregated at school level (N=40); Sample-Size adjusted BIC=5638.546

Figure 4:   Cultural profiles OCAI-SK 2009

data aggregated at school level (N=40); Sample-Size adjusted BIC=5599.697

Depending on their distribution over the four cultures and their items, we decided to name the four main cultural profiles emerging through the LCA: *stable control culture profile* (class 1), *clan culture profile* (class 2), *innovative community culture profile* (class 3) and *familial hierarchy culture profile* (class 4).

If one observes the characteristics of these cultural profiles over time, their replication can easily be identified. In fact, 60 % of the participating schools kept their profiles over this two-year period. At this point, it should be noted that schools that already showed a significant and steady cultural type during the χ²-test, also showed a higher stability level regarding their cultural profiles. On the contrary, schools that did not show a specific cultural type were more likely to form another cultural profile over the years.

Nevertheless, it should be noticed, that the amount of cultural change could be influenced by the fact that the investigated schools were participating in a school developmental project.

6. Discussion

One aim of this study was to evaluate the newly developed questionnaire OCAI-SK (Müthing, 2013) based on the OCAI (Cameron & Quinn, 2006), and therefore the *Competing Values Framework* of Quinn and Rohrbaugh (1983), which assesses the four cultural types *adhocracy*, *clan*, *hierarchy* and *market*. This alternative questionnaire, chosen to detect school culture types, is a reliable solution, based on a theory-based approach in the light of the conflicting value systems used in determining organizational cultures. Thus, the OCAI-SK has identified the basic prevailing cultural orientations of the 40 investigated schools.

The results showed that most of the schools were characterized using the term *clan culture*, whereas the fewest schools were rated as *adhocratic*. This leads to the hypothesis that schools, at least in Germany, have a strong focus on internal processes, while they are at the same time open for organizational flexibility due to their governmental embedment. At the same time, the small occurance of the *adhocracy culture* as well as its low reliability values could be pointing to the question to which extent terms like "innovative", and phrases like "ready to take risks", are assignable educational institutions. Research on this question could enrich the further development of the OCAI-SK. Despite the adhocracy scale, all other scales have shown an even higher reliability level than the OCAI. Therefore, the OCAI-SK can still be evaluated as an adequate instrument to assess school culture.

This study also showed a great amount of cultural stability of the investigated schools over the period of two years. This stability could mainly be found in schools which had clearly chosen a specific culture. Perhaps this could indicate that cultural intensity plays a role for determining cultural stability: the stronger the cultural values were, the harder it was to change them.

This consideration could be transferred to the aspect of cultural profiles which were calculated via latent class analysis on the basis of the appearance of mixed cultures. Even though schools did not all represented the typical four organizational cultures of Cameron and Quinn (2006) in pure form, four different culture profiles became apparent, allowing for a categorical classification of the participating schools. Therefore, it seems that the assigned cultural model is also applicable to schools in general, but should perhaps be slightly altered when assessing school culture.

Based on study results, the OCAI-SK can be used in its present form to screen schools' cultural orientations. To check the background factor of *school culture* in other school development projects or programs, the use and evaluation of a latent class analysis is highly recommended. For interested school administrators and school development consultants who want to consider the culture of a single school, the OCAI-SK based on the analysis of culture sums (via χ^2-test), is certainly adequate.

Nevertheless, it should be noted that the OCAI-SK alone is not suitable for changing school culture. It can be viewed as a tool to assist principals and teach-

ers to plan their employee or organizational development. However, if a cultural change is desired, schools often need the support of the district office and state policy on the one hand, and of change agents on the other hand, who help to implement cultural changes in schools (Shachar, Gavin, & Shlomo, 2010).

The OCAI-SK should be seen as a cursory screening which focuses on fundamental cultural similarities and differences – it is not able to reproduce the entire complexity of individual school cultures.

Furthermore, the variation between individual measurements within the investigated schools was not considered in great detail due to the scope of the study. Perhaps a strong dispersion of the measured values could be interpreted as a kind of split culture. It is difficult to locate a source for this variation. One possible explanation could be related to teachers' varying levels of empathy (Barr, 2011). Furthermore, we still do not know how the respondent-related perceptions of special cultural terms are connected to the assessment of school culture.

Moreover, it should be pointed out that the OCAI-SK does not directly provide results regarding the effectiveness of individual schools. Therefore, it would be a promising step to measure cultural types of schools and compare them with impact criteria such as school effectiveness or deviant pupil behavior (e.g., vandalism or absenteeism).

Further research based on this article's topic of analyzing school culture could also be conducted in terms of an investigation of school type-related predictors of school culture. Nevertheless, the OCAI-SK provides a new kind of assessment instrument to measure school culture based on the organizational culture theory of Quinn and Rohrbaugh (1983) – with the potential of a wide range of application.

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