Overcoming Subcultural Barriers in Educational Technology Support

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Abstract

Various higher education institutions in German speaking Europe are in the process of establishing educational technology support structures. Educational technology support brings together a variety of academics as well as administrative units such as IT services, multimedia shops, faculty development, or the libraries. The following contribution describes academic and support subcultures, unfolds areas of conflict and suggests strategies to overcome cultural barriers in edtech support.

The paper recommends to anticipate cultural barriers between support groups and to eliminate those through the strategic planning of structural adjustments. Furthermore leadership on various levels is considered as being critical to reach cultural reconciliation and a productive support climate.

1. Introduction

Significant changes in teaching and learning through educational technology have been predicted for some time (Drucker, 1997). Today, multimedia and eLearning have evolved into substantial businesses (Zastrocky, Yanoski, & Harris, 2004), and projects in many universities illustrate the potential of new media in education (e.g., Twigg, 2003). In most cases, faculty members who belong to the group of early adopters have been the prime initiator of these initiatives. However, already ten years ago, Geoghean (1994) suggested that the “second wave” of faculty is slow in adopting these new practices. This he assumes is the case less for reasons of aversion to technology, than for an aversion to risk, inadequate support and eventual the lack of a compelling reason to buy into a relatively disruptive way of teaching. So far, the cultural dimension of educational technology in general and educational technology (edtech) support in specific remains largely unexplored.

In a state of shifted goals and fundamentally changed conditions of higher education teaching (e.g., Middlehurst, 1999) not only faculty are expected to adjust to new realities (e.g., Brown, 2003) but also support workers need to adopt flexibly new tasks and working modes (Brooks, 2003). Technology enhanced teaching and learning creates new fields of cooperation in the academic as well as in support area. IT support, multimedia shops, faculty developers, libraries and further groups and individuals located at both centralized and decentralized units contribute to a high quality learning experience. The backgrounds, objectives and fundamental values of individual support workers are extremely diverse.

In many universities the day-to-day support may be characterized by limited collaboration.

This paper presents the analysis and consequences of subcultural variation. As such it contributes to the understanding of the actual behavior of edtech support as a factor limiting the more widespread adoption of educational technology through faculty. The focus lies on

- cultural differences between faculty and support groups involved with educational technology such as IT support groups, teaching centers, multimedia shops, specialized edtech centers or the libraries
- cultural variance between individual edtech support units
Schein suggests that culture manifests itself at three levels (Schein, 1992). On the first level deep tacit assumptions are perceived as the essence of culture. The second level refers to internalized values a group holds and presents publicly. The third level represents the daily behavior of organization members. An integrated organizational culture contributes significantly to the successful functioning of an organization (e.g., Sporn, 2001). However, authors such as Clark and Tierney (as cited in Beyer, 1997, p. 162) come to the conclusion that cultures shared by the whole organization exist in some but not all colleges. Organization-wide cultures are more prevalent in small colleges with a strong emphasis on undergraduate teaching than in differentiated research universities, the subject of this study. An important reason for the lack of an organizational culture lies in the absence of frequent interaction among members of higher education institutions (HEIs), which is crucial to reach some level of consensus on cultural meanings and the development of cultural forms (Beyer, 1997, p. 162).

Hofstede (1998, p. 11) emphasizes in his study on the management of organizational subcultures the importance to be aware of the cultural variety within the organization they lead. Van Maanen & Barley (1984) provide insights into the role of occupational communities across organizations. An occupational community is a group of people whose members engage in comparable tasks, whose identity is defined through their work and who share values, norms and perspectives that gain relevance beyond the work situation. Both theoretical concepts of subcultures and occupational communities are relevant to the understanding of academic subcultures.

Focusing on higher education, Henkel (2005) revealed internalized values of faculty through her research on academic identity. The disciplinary community is a dominant influence (Clark, 1987; Becher 1981). Other elements of importance include the high autonomy inherent in faculty positions and the significance of research for the formation of identity (Henkel, 2005). However, not only faculty but also students and administrators take specific roles, as they interact predominantly with peers and in doing so form strong subcultures, too (Beyer, 1997).

2. Research Methodology

To gain insights into the cultural aspects of edtech support, the author studied support approaches and cultures of three American research universities. As the implementation of educational technology at the studied institutions is advanced, the detailed study and presentation of the achievements as well as difficulties is seen as valuable for the European context.

The questions under study have been explored through a qualitative research methodology. Data from the case study institutions was collected through document analysis, participant observation and over 50 interviews with various constituencies within the particular institutions. To validate initial findings, focus-groups at each institution were organized. The within-case analysis for this research follows common case study research practice. This procedure delivers deep insight in and familiarity with the individual case and provides an important basis for solid cross comparison (Eisenhardt, 1989). A grounded theory methodology (Strauss & Corbin, 1990) was then applied to reach more abstract insights. During the research process the qualitative data analysis software AtlasTI was deployed to facilitate the coding and retrieval of data, the linking of information towards theory building and to apply graphic network functionality. (Miles & Huberman, 1994, pp. 313-314).
3. Analysis of Academic Subcultures

In this chapter first, the teaching culture of faculty at American research universities is analyzed as well as the different support cultures are described and compared. Next, potential areas of conflict between the individual subcultures are highlighted. The chapter concludes with considerations on the transferability of the presented findings to the German speaking countries in Europe.

3.1 Academic Teaching Culture at American Research Universities

The three investigated private research universities hold places 5, 28, and 120 in the national ranking (US News & World Report, 2005). The institutions are of comparable size and enroll between 9'000 and 17'000 full time students. The lowest ranked university enrolls 85 percent of all students in undergraduate programs whereas this rate at the highest ranked institution is as low as 40 percent. The focus of their programs as well as the development paths differ widely.

Table 1
Characteristics of Case Study Institutions

<table>
<thead>
<tr>
<th>Item</th>
<th>Institution 1</th>
<th>Institution 2</th>
<th>Institution 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollments: Undergraduate/Graduate</td>
<td>Fulltime: 4'000/ 6'000</td>
<td>Fulltime: 15'000/ 2'200</td>
<td>Fulltime: 4'800/ 3'500</td>
</tr>
<tr>
<td>Faculty Body</td>
<td>1000 faculty of all ranks</td>
<td>800 full-time, 300 part-time</td>
<td>450 faculty of all ranks*</td>
</tr>
<tr>
<td>National Ranking</td>
<td>Top 5</td>
<td>120</td>
<td>Top 30</td>
</tr>
<tr>
<td>Programmatic institutional focus</td>
<td>Institute of technology</td>
<td>Expanding urban institution, focus on professional education</td>
<td>Liberal arts college with prestigious professional schools</td>
</tr>
<tr>
<td>Institutional development</td>
<td>Relatively steady and straightforward development</td>
<td>Painful but successful turn around in the early 1990ies. Repositioning of the institution as a research university of national reach.</td>
<td>Since the mid 1980ies advancement from an underfunded regional liberal arts college into a top ranked research institution.</td>
</tr>
</tbody>
</table>

Despite the differences described above the situation of faculty at all three institutions is comparable. They are expected to perform in the three areas of research, teaching, and service. Tenure is provided almost exclusively on the basis of their research accomplishments. “Poor” teaching is not tolerated whereas outstanding accomplishments in teaching generally do not pay out. In this situation, faculty often optimize the time commitment towards teaching. Junior faculty in particular do not feel encouraged to invest extra energy into teaching experiments.

“There were some issues with the network being able to handle a lot of faculty coming online. So we had some growing pains. And as a result of that experience I actually stopped using Blackboard for a while because it was... my teaching evaluations went down and I needed it to get tenure before I started doing more off the beaten track stuff because I need to make sure I can have a job to still do the stuff I wanna do” (Institution 2).

In all three institutions, however, there are senior faculty who almost exclusively devote their time to teaching innovation.
These findings have also been confirmed by other researchers (e.g., Beyer, 1997; Paulson, 2002). Moreover it needs to be recognized that faculty traditionally have disposed over far-reaching autonomy regarding the choice of methods and subjects to teach. However, this autonomy has been gradually undermined as a consequence of external pressure of student customers, the political claim for accountability for rapidly rising tuitions (Turner & Stylianou, 2004, p. 250), as well as the expectations towards technology integration into the curriculum (Powell, 2003).

3.2 Comparison of Support Subcultures
Characteristics of subcultures in edtech support are remarkably similar across the studied institutions although they clearly operate within different organizational contexts and organizational cultures. In the following, the cultures of three support groups will be characterized namely a) the edtech culture, b) the IT culture, and c) the library culture in order to identify critical differences and areas of conflicts. The characterization delivers a grand generalization and important tendencies.

a) The Edtech Culture
On many campuses dedicated educational technology groups have evolved since the mid 1990ies (Arabasz, Piriani, & Fawcett, 2003, pp. 49-51). So on institution 2 and 3. Without a long history nor a clear role model group to mirror their activities they are in the process of establishing their identity from scratch. This identity is heavily influenced by the personalities heading the units who in both instances have a background in academia. Both edtech groups cover the whole spectrum of pedagogical and technological competencies such as IT, web design, or instructional design and work in a highly interdisciplinary mode. These groups stand for values such as creativity, innovation and flexibility. The following two quotes describe the culture of these units:

“So there is a lot of going back and forth and we have open, we have brainstorming meetings all the time. So if there is a new project then you are the project manager we would all gather, we would all brainstorm and then you can take it and go. You don't understand the pieces, so you chose your team that you need and so it works really well” (Institution 2).

“And I think sometimes it also depends on the individuals. In this environment you need people that are very proactive. There are people that... you can't have some, you really can't have people who need to be closely managed and told this is what you need to do from A to Z” (Institution 3).

Edtech support workers spend much of their time reaching out to faculty „selling“ edtech concepts and ideas. Consequently, a very responsive support culture has been developed. It will be interesting to see how this culture develops once educational technology has mastered the pioneering phase and the presence of edtech support has become a matter of course on university campuses.
b) IT-Culture
In this context, the term IT culture refers to the attitude of IT support people mainly dealing with
desktop and classroom technology support for the academic community. They differ from academic
technology groups. The latter often resemble edtech groups in task and attitude.
IT support looks back to a short history with immense advances in technology dramatically altering
the role of IT support several times. Adapting to these transitions has been challenging and many
faculty tend not to be at ease with the role of IT as the following quote emphasizes.

“So they have a culture historically of being in charge of computation. I think the IS
culture has not adapted to the fact that we now have local control. That everybody has a
computer on their desk” (Institution 1).

In particular in institution 1, IT groups had a hard time to abandon outdated systems and focus on
actual faculty needs. Many IT support workers felt emotionally tied to the homegrown system that in
eyear phases had been of groundbreaking nature. As such, IT support often times only become visible
for faculty when a problem occurs. IT professionals also have difficulties in communicating the
complexities involved with technology support.

“They (the faculty) see technology as a drain on resources and it is. That stuff is
changing on a regular basis. So one of the things that goes on here is pointing to
information services as having so many people but they don't see what we are doing. It's
all behind the scenes” (Institution 2).

Furthermore it has been difficult for universities to hire qualified IT support staff committed to stay in
the position for several years in times of fast transitions: the job market has been tight and university
salaries often not competitive. As a result institution 3 reported difficulties with fast turnovers.
However, IT support across all three institutions has managed to establish strong values. Above all
they care about the stability, security of the network and the scalability of applications.
In particular in institution 2, differences have been observed between central and local IT support.
Local IT support professionals are close to the faculty needs and would like to flexibly respond to the
local requirements. On the other side, central IT is concerned with the scalability of solutions and is
hesitant to support leading edge solutions for individual departments.

c) Library Culture
The libraries have become an important partner in educational technology as library activities are
rapidly embracing online services. The convergence between educational technology and library
science can also be assumed by the substantial number of librarians who stepped into this new field of
educational technology (Allan, 2002). The conflicts between IT and library culture have also been
discussed in the literature since many HEIs are merging IT and library services (e.g., Ferguson &
Metz, 2003). Ferguson & Metz (2003, pp. 98-100) highlight also the significant higher compensation
among technologists than among librarians and observe a gender dynamic with the majority of library
employees being female whereas IT staff still frequently being male. Consequently, it is interesting to
more closely contrast the edtech and IT culture with the library culture. Over a long period of time the
libraries developed a service ethos that could inform the efforts of other support units.
Library staffs at all three institutions have a background in library science and typically also have special knowledge in the subject field they are in charge of. The core value of the library culture is adequately expressed in the following quote of a librarian:

“It always comes back to direct service you know to patrons I think to keep in touch I think with students, with faculty, with your colleagues, ask for help, collaborate, The single core value is serving to its patrons” (Institution 2).

It is also characteristic that (only) librarians on all three campuses refer to faculty as patrons.

The following table presents a comparative analysis of the above described university subcultures.

<table>
<thead>
<tr>
<th>Systematization along Schein’s levels of culture</th>
<th>Categories emerging from the data</th>
<th>Customer View</th>
<th>Support Perspectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors influencing the development of deep tacit assumptions</td>
<td>Tradition, experiences</td>
<td>Academic Culture</td>
<td>Edtech Culture</td>
</tr>
<tr>
<td>Background of Support professionals</td>
<td>Traditional academic career, socialized in specific disciplines</td>
<td>Long established tradition</td>
<td>Young culture, in the process of identity search</td>
</tr>
<tr>
<td>Internalized Values</td>
<td>Values</td>
<td>Disciplinary based, academic freedom, autonomy, research identity</td>
<td>Creativity, flexibility, innovation, pedagogical value</td>
</tr>
<tr>
<td>Observable behavior, artifacts</td>
<td>Understanding of support relationship</td>
<td>Support is expected to contribute to the quality of academic work</td>
<td>Client Vendor</td>
</tr>
<tr>
<td>Attitude</td>
<td>Reactive</td>
<td>Proactive</td>
<td>Proactive</td>
</tr>
<tr>
<td>Interaction with faculty (support)</td>
<td>If need occurs</td>
<td>Ongoing</td>
<td>From physical towards virtual interaction</td>
</tr>
</tbody>
</table>

### 3.3 Areas of Cultural Conflict

This paragraph illuminates the latent cultural conflict potential between support units and between the academic and the support culture. Faculty as well as support groups often complain about the behavior of IT support. The following considerations claim not to follow the frequent behavior of treating IT as a scapegoat but to search for more fundamental reasons.

a) Potential for Cultural Conflict between the Academic and the Support Culture

As described in 3.1, the academic environment expects faculty to deliver outstanding achievements in various domains although ultimately the research accomplishments remain in the foreground. The majority of faculty sees the preoccupation with educational technology as an activity of secondary importance (nice to have), which requires an unclear time commitment. Edtech Centers as well as
libraries take enormous efforts to reach out to faculty and offer their services. However, from the support groups’ perspective their services remain underutilized. The relationship between IT and the faculty is of a more conflicting nature (see also Scrivener Agee & Holiski, 2003). Most contacts only come about if a problem has already occurred. In many instances this situation causes a lot of inconvenience for both sides as the issue needs to be resolved under time pressure. In addition, communication problems occur frequently. Faculty have little knowledge of the complexities of today’s IT infrastructure and they lack the understanding for the huge costs of a modern infrastructure. Furthermore they have difficulties to follow commonplace decisions of IT for instance why, which software is available and supported. This all together leads to frequent prejudices toward IT. At the same time IT support professionals usually have little insights into the everyday life of faculty and the pressures raised towards their role. They insufficiently understand that technology poses a real threat for many faculty and they tend to “overengineer” tools. For IT support it remains inapprehensible why faculty would not take their time to become familiar with a certain tool. From their perspective this disinterest results in emergencies, which could have been avoided with minimal effort.

b) Cultural Conflict Potential between the different Support Cultures
A latent conflict potential also exists between IT and edtech support due to the group’s incompatible inherent values. The search of edtech support professionals for creative and flexible solutions taking in consideration a faculty’s learning goals may threatened the IT system’s security. The departure of standardized solutions requires the acceptance of an inherent risk, which IT support would rather avoid. In addition, innovative eLearning approaches will soon raise the question of scalability as the head of a central IT unit explains.

(...) “here is an example: They (edtech unit) are starting to experiment with more streaming media. There are issues around streaming media that we have to be careful of because it affects bandwidth and I am looking at things from that perspective as opposed to well, isn’t this a great idea for teaching? Yes it’s a great idea for teaching but where is it going to impact over here (central IT operations)?” (Institution 2)

A similar tension can be observed between IT and the libraries. Furthermore the two groups perceive the potential of new educational media differently. Whereas librarians put the term “information literacy” to the fore, which they specify as the endeavor to foster students’ competence to access and process quality information, IT professionals emphasize the importance of computer literacy and emphasize the ability to adequately employ tools. A further conflict potential lies in the general interpretation of support responsibility and the actual style and behavior towards clients and partners (proactive vs. reactive). Finally, several conflicts have their roots in misunderstandings due to insufficient or incomprehensible information.

3.4 Thoughts on the Transfer of The Findings to the German Speaking Context
The presented analysis of latent cultural areas of conflict is based on the investigation of support subcultures at three selected American research universities. A transfer to the European context shall not be done without thorough reflection of the different national and systemic context. However, as a
result of the surprising parallels of the support cultures across the three case studies the author is convinced that the specific organizational culture is only of limited significance. More relevant is the socialization of support workers within an occupational community. In the following, country specific influences will be considered.

A comparably competitive situation between research and teaching exists in the US as well as in German speaking Europe. This is surprising as rigorous teaching evaluations are commonplace at American research universities (e.g., Wachtel, 1998) and a formal consideration of teaching in the tenure and promotion process exists at all of the studied institutions. These arrangements however are not effective enough to counteract the fundamental conflict.

Regarding the support approaches, faculty development units were installed at many German universities as early as in the 1970ies. However, a central contact point for educational technology related issues has only emerged in the past few years (Kleimann & Wannemacher, 2004). The development towards a new occupational area taken by academic professionals is less pronounced than in the US. In German speaking Europe many support tasks have been taken on by faculty members or academic staff who acquired specific knowledge in the field of educational technology (Rhoades & Sporn, 2002). These academics have more direct access to the university faculty. Euler (2005) speaks of consulting on similar eye height.

In summary it can be stated that despite different national contexts only few reservations need to be taken towards the validity of the research findings. Consequently, the following recommendations to overcome cultural barriers may also be of relevance to institutions in German speaking Europe. Naturally, findings from qualitative case study research are always closely related to the specific research context and a transfer of the results needs to be thoroughly reflected on the basis of the new context (Stake, 1995).

4 Overcoming Cultural Barriers in Edtech Support

Cultural barriers are not removed over night and well rehearsed behavioral patterns are difficult to change. In the following, it is explored how strategic management practice could facilitate the adjustment of structural conditions and how cultural leadership is an indispensable requirement for cultural reconciliation.

In Figure 1 the structural and cultural conditions of edtech support are illustrated and the role of strategic planning and leadership is emphasized. These interventions aim at influencing the resulting support activities leading to a desired impact on faculty behavior. These relationships are described in chapter 4.1 and 4.2.
4.1 The Adjustment of Structural Conditions through Strategic Management Practice

First, the observed structural conditions (area of responsibility, funding, support staff) at the three case studies are described followed by suggestions on how to strategically adjust these are presented.

a) Area of Responsibility
In the studied institutions the responsibility of edtech support groups has not been defined narrowly. Goals for the units have only been vaguely specified by its sponsors. Hence, they are engaged in the process of identifying the best possible service offering to faculty.

Although the scope of their work is meant to be central, it becomes clear that proximity to faculty is key to successful edtech support. Therefore two case study institutions (institution 1, institution 3) have been experimenting with models of “centrally coordinated local support” to improve the effectiveness of the support work. The core idea of the model is to redefine the area of responsibility of support workers in such a way that they reside in the local context in the departments to work in close proximity to faculty. Likewise, these support workers maintain strong relationships with central support to secure knowledge exchange. The model proved to be effective to overcome conflicts between faculty and support units but resource intensive (Zellweger, 2004). This approach has also been practiced and documented at Stanford University (Engel & Steinbeck, 2005).

However, the creation of central edtech units (in institution 2 and 3) acting as university-wide clearing houses for edtech related issues has proved to be valuable. Hosting pedagogical, design and technological experts as well as heads with an academic background allows support professionals from other support groups to find competent contact persons speaking the same language. This resulted not only in a variety of opportunities for cooperation, the intense interaction within these groups also fosters the multilingualism of its edtech support workers. Those in turn provide important translation services to the whole organization.
b) Funding Model
The source and mode of funding is critically influencing the operations and behavior of the respective support unit. In Table 3 illustrates the various characteristics of funding models found at the studied institutions.

<table>
<thead>
<tr>
<th>Source</th>
<th>Sponsor</th>
<th>Mode</th>
<th>Permanence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>Academic</td>
<td>Lump Sum</td>
<td>Regular Budget</td>
</tr>
<tr>
<td>Decentral</td>
<td>Administrative</td>
<td>Fee for Service</td>
<td>Temporary</td>
</tr>
<tr>
<td>External</td>
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</tr>
</tbody>
</table>

Established support units such as central IT support or the libraries often dispose over a centrally funded *lump sum* budget that is defined in the *regular budget* process. IT is mostly sponsored by *administrative* funds whereas libraries traditionally are supported through *academic* funding. Educational technology units often rely on a mixed portfolio of funding sources with different characteristics. The edtech unit at institution 2 is funded centrally by the provost’s office (academic sponsor) but also relies on external grants and decentralized funds of individual faculty budgets. Differently, the edtech unit at institution 3 is funded through administrative money from the individual schools (decentralized). Audio/Video service groups in turn in all three institutions operate on a fee for services mode. Thus, these groups are in direct competition with external providers. As a consequence, the latter units have only limited possibilities to help explore issues that lay beyond classical media production services. Various edtech projects exist that were started on temporary seed funding. It is critical to convey established initiatives into a regular budget cycle.

The funding source of a support unit is directly related to its area of responsibility. Decentralized funding mechanisms that are incorporated in the regular budget cycles have proved to contribute to the credibility for edtech activities.

c) Support Staff
The individual background in terms of skills, work experience, and familiarity with the institution is most important for the actual outcome of edtech activities in particular in view of the often fuzzy definition of missions and goals and the resulting high degree of freedom. The various groups took different staffing strategies. Most staffs were hired from within the institution have previously worked in related fields as many groups emerged from the reorganization of previous structures. Only to complement the broad set of skills required, individual staffs were hired externally. The approach of concentrating on reorganization retained a lot of the institutional knowledge.

Only in institution 1, a newly created support group was staffed almost entirely by external hirings. One benefit was the fast ramp up of their activities as the usually time consuming reorganization within the institution was avoided. It also enabled the group to establish a new and completely different support culture that served the purpose of the specific project well. However, various arrangements needed to be taken due to the lack of organizational knowledge to gain access to the faculty.
Three major aspects shaping the structural conditions of edtech support work have been identified. These structures significantly influence the actual behavior of support staff in terms of services offered and the way it is provided. However, none of the three institutions considered the structural conditions of support in an explicit strategic management process as the following quote from institution 1 illustrates:

“Most of the council’s edtech initiatives have been in some sense research oriented initiatives. In the spirit of the institutional culture it makes some sense. But from the service central organization's perspective there remains a significant gap between how to take the outcomes of these things, the fruits of these processes, and first assess which if any make sense to take part of the ongoing systemic structure of the institution. And secondly how to deliver it if that's the decision” (Institution 1).

The role of strategic management for educational technology integration has been discussed by various authors (Hitt & Hartman, 2002; Reid, 1999; Shaw & Zabudsky, 2002; Stockley, 2002). However, only Zawacki-Richter (2004) goes as far as to recommend elements of a support strategy. He makes a successful development of online learning dependent of a support strategy that consists of top down and bottom up influences. It is a management responsibility to establish an institutional context that is conducive to online learning including

- a strategic planning process that establishes the goal of online learning and the commitment of all constituencies;
- the development and maintenance of basic technological infrastructure;
- the development of a support structures and services;
- the introduction of a system of incentives that motivates faculty to participate in online learning;

4.2 The Role of Cultural Leadership

As illustrated in Figure 1, not only structural but also cultural conditions influence the behavior and activities of edtech support workers. In the following, first the cultural conditions of support groups are described and in a second step the role of leadership is explored.

a) Support Staff
Not only the recruiting of staff with particular education and skills influence the support activities (structural condition), as illustrated in the comparative analysis of support culture (see 3.2) but also does the socialization within occupational communities lead to specific subcultural values. It could be observed that the edtech support groups engaged in different activities that can be ascribed to the values of the group staff.

b) Tradition
The history and experiences of a support group form a shared understanding that influences support behavior. Only the libraries look back to a long tradition and draw on a commonly shared and well-established support tradition.
c) Organizational Culture

As outlined in chapter 1, strong organizational cultures are characterized by values, beliefs, and attitudes that to a certain degree are shared among all institution members (Sporn, 2001, p. 55). There could be found shared premises within all three institutions, the most articulate at institution 1, where the “driven” climate and the entrepreneurial spirit is emphasized on all levels.

“I think another characteristic that is both positive and negative is the entrepreneurial nature of this institution. And that is both faculty, staff and students have that sense that I can make opportunities myself” (Institution 1).

At institution 2 and 3 some clear values are promoted but due to the turbulences in the past it cannot be stated that a clear set of shared values has gained critical relevance to the behavior of support units. Even at institution 1, where support units more frequently parallel to their support work follow an entrepreneurial research agenda, the variance from the support cultures of the other two institutions is amazingly low. This limited influence of organizational culture on the values of support workers is indicated in Figure 1 by a dotted line.

Cultural conditions of support such as support traditions or organizational cultures are difficult to influence in the short term. However, various authors emphasize the importance of cultural leadership (e.g., Kempner, 2001; Trice & Beyer, 1991). Kempner (2001, p. 380), in his study on community college presidents, describes cultural leaders capable of recognizing cultural differences, hearing the voices of diverse groups, and promoting institutional dialogue. Leaders furthermore take a critical role in empowering faculty and support staff (e.g., Ramsden, 1998, p. 254). Other leadership responsibilities have been conducive to the edtech support enterprise emphasized in the higher education literature. Middlehurst (1999, p. 237) defines the function of leadership as the responsibility “to assist the institution (and particular parts of the institution) to identify and evaluate emerging realities, to assess the options available and to prepare strategies for moving towards one or more scenarios”. Drabier (2003, pp. 6-8) and Brooks (2003, p. 48) highlight the increasingly collaborative nature of IT leadership.

Many universities in German speaking Europe are in the process of establishing educational technology support structures. This contribution calls upon higher education leaders to anticipate cultural barriers between support and faculty as well as support groups among each other and to eliminate those through structural adjustments and leadership on various levels.
5 References


