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Learning Culture as a guiding concept for sustainable educational development at Higher Education Institutions

Abstract
In recent years, the discussion about innovating teaching and learning in higher education has focused on a number of core concepts such as outcome-orientation, development of competencies, and student-centered teaching and learning. These terms provide a fairly clear vision of desirable teaching and learning practices on a normative and conceptual level. However, the same does not hold true for strategies on how to implement such concepts to sustainably change current teaching and learning practices. To date, few approaches have been proposed in the scholarly literature on how to accomplish large-scale as well as sustainable changes in higher education: Frequently, educational development is reduced to the course level addressing only teaching and learning methods, technologies and individual approaches to teaching and learning. At the same time, large-scale changes concerning the entire educational landscape of a higher education institution (HEI) are dominated by administrative and managerial considerations. This article proposes the concept of Learning Culture as an institution-wide approach to educational development. This approach addresses different institutional levels from a pedagogical point of view. Such a whole-institution approach can help to attain more sustainable changes in the educational practices at HEI.

Keywords
educational development, learning culture, educational innovation, sustainability

1. The challenge of sustainability in educational development

Currently, a number of discourses are going on about how to best organize teaching and learning at higher education institutions (HEI). Several academic disciplines (among them educational sociology, educational psychology, and faculty development practitioners) as well as societal and economic stakeholders take part in this discourse. Teaching and learning at HEI is expected to respond to societal and economic demands as well as to new insights from educational research. Innovations concerning the learning outcomes generated through a course of study and, correspondingly, the practices of teaching and learning are necessary. Over the last two decades or so, the discussion about innovating teaching and learning at HEI has focused on a number of core concepts: Focusing *learning outcomes* in the form of *competencies* as well as *student-centered teaching and learning* all form part of a movement that Barr and Tagg (1995) have termed the "shift from teaching to learning". These terms with their adjacent concepts provide concise ideas about the desired practices of teaching and learning. Students are expected to be active, motivated, and self-responsible learners who eagerly engage in learning processes rather than "consume" precast knowledge. Teachers are supposed to support student learning by acting as coaches who consult students in their mostly self-regulated learning (Clifford, 1999; Zimmerman, 2002). Correspondingly, the role of technology in teaching and learning processes is changing: While tools such as learning management systems (LMS) were and are often used primarily for distributing learning material (e.g. in the form of texts), technology – especially so-called Web 2.0-tools – is increasingly expected to enable students to become active learners by producing media content or interacting with teachers and peers.

These aspects considered, the vision of future teaching and learning practices seems relatively clear on a normative and conceptual level. However, the same does not hold true for strategies on how to actually implement normative concepts and sustainably change current teaching and learning practices. Regarding the question how to actually *transfer* such normative concepts into the practice of teaching and learning at HEI, very few approaches have been proposed so far in the scholarly literature. In this context, to accomplish large-scale (i.e. institution-wide) as well as *sustainable* change is a major challenge. Especially innovations in educational

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technology have in retrospect often turned out as "waves" or hypes generating short-time change but lacking long-term impact on teaching and learning practices in higher education (Schulmeister, 2006).

This paper elaborates on the necessity to develop strategies for a sustainable implementation of educational development initiatives at HEI. Therefore, the construct of Learning Culture is proposed as a leading concept to continually and sustainably develop the practices of teaching and learning. In the first section of the article, the normative basis underlying innovative educational practices at HEI will be further elaborated on. In the second section, the concept of Learning Culture as a three-dimensional construct will be introduced, including different areas of development on each level. In the third section, strategies of how to combine actions on the different levels of Learning Culture at HEI are discussed, outlining the challenges for a sustainable development of teaching and learning. This includes a discussion about the implications the Learning Culture perspective contains for the educational research strategies.

2. Normative guidelines of desired teaching and learning practices in higher education

As stated above, the normative basis for the development of teaching and learning at HEI centers around a number of core concepts which have been extensively discussed and promoted in the scholarly literature (e.g. Barr & Tagg, 1995 ; Bransford, Brown & Cocking, 1999; Kinzie & Kuh, 2007; Biggs, 2003; Schmidt, Van Der Molen, Te Winkel & Wijnen, 2009).

Outcome-orientation. This principle promotes focusing the learning process and its results rather than the inputs of canonical knowledge. Learning outcomes are „statements of what a learner is expected to know, understand and/or be able to demonstrate after completion of a process of learning“ (D'Andrea & Gosling, 2005, p. 116). Orienting teaching and learning practices towards their desired outcomes has two major implications for the design of teaching and learning at HEI:

(1) On the level of study programmes, outcome-orientation means a shift in the design process: Programme designers must not only consider the academic knowledge provided by the programme's main subject(s). Rather, they are challenged to take up the demands put up by different stakeholders both within and outside the academic field (main academic disciplines, students, potential employers, etc.), weight them against each other, and use them as a reference for designing different learning activities (both in and outside the classroom) within the programme (Wildt, 2004; Cendon, 2008; Hubbal, Gold, Nighty & Britnell, 2007; Schermutzki, 2008).
(2) Concerning the individual student, outcome-orientation means to acknowledge and to certify competencies which have been acquired outside the HEI (Bjornavold, 2000). This encompasses both competencies developed in formal learning situations at other institutions as well as competencies developed during non-formal and informal learning processes e.g. during working periods. Assessing and certifying such informally acquired competencies poses a major challenge for the development of teaching and learning (Gaskell, Brookes & Brierley, 1994).

Competency-orientation. The aim to develop (generic) competencies specifies which kinds of learning outcomes should be acquired in higher education. Rather than memorize canonical knowledge students should be able to flexibly adapt to and solve problematic situations in real-life situations. Such an understanding of competency as a basis for effective action comprises not only methodical, but also social and personal (self) competencies (Chur, 2002; Kirchhöfer, 2004). Moreover, each competency consists of relevant knowledge as well as skills, and attitudes necessary to take action in a given situation (Euler & Hahn, 2007). As a consequence, competency-oriented teaching and learning requires more than the transmission of canonical knowledge. Rather, learning designs need to provide authentic situations in which knowledge, skills, and attitudes can be actually applied and tested (Euler, 2004; Bransford et al., 1999).

Student-centeredness. The principles of outcome- and competency orientation imply an increasing focus on the students as learners. Rather than the teachers' inputs, the students' learning processes as well as their requirements for individual development take centre stage. Student-centeredness is based on the idea of the active, self-regulated, and lifelong learner. Thus, besides providing a subject-oriented education, the aim of

higher education is also to develop students' "capacity to learn" (Claxton, 2007). Student-centeredness implies that students develop a thorough understanding of (a) the aims of studying and the relevance of the learning outcomes addressed within study programmes and courses, (b) their own prior competencies and expectations towards studying, (c) the expectations placed on them by their teachers and the HEI, and (d) the (un-) adequateness of different teaching and learning methods for reaching specific learning outcomes (Biggs, 1999).

These principles of outcome-orientation, competency-orientation, and student-centeredness are to be regarded as neither exhaustive nor selective. Yet, they provide a concise overview of the normative ideas currently guiding the development of teaching and learning at HEI and which Barr and Tagg (1995) have summarized with the term "shift from teaching to learning". The idea behind this conceptual shift has several theoretical roots: On the one hand, it is founded in modern learning theories (Resnick & Williams Hall, 1998; Biggs, 2003) such as cognitive and social constructivism (Cole & Wertsch, 1996; Liu & Matthews, 2003), as well as social-cultural approaches such as the concept of situated cognition (Brown, Collins & Duguid, 1989; Lave & Wenger, 1991). On the other hand, the rationale for changing the practices of teaching and learning at HEI is also rooted in societal developments: The observation that western societies have begun to turn from industrial into "knowledge societies"(UNESCO, 2005; Bleicher, 2002) increasingly influences the discourse about the functions and organization of higher education (Bleiklie, 2005; Välimaa & Hoffmann, 2008). With the economies asking for more and more highly qualified professionals, higher education is currently turning from an elite into a mass system (Trow, 1974, 2005). The abovementioned core concepts, which are currently guiding educational development at HEI, certainly reflect these developments both within educational research and society in general. The big challenge for educational development is to transfer the normative guidelines into the actual practice of teaching and learning.

3. The concept of Learning Culture as a basis for institution-wide educational development

The normative concepts outlined above can be seen as guidelines for educational development at HEI. So far, however, there is little research on strategies concerning the systematic and – especially important – *sustainable* implementation of innovative concepts for teaching and learning at HEI (for an exception see e.g. D'Andrea & Gosling, 2005; Blackmore, 2009).

3.1 Challenges for sustainable educational development at HEI

Research into *systemic change in higher education* has shown that "a fundamental change in one aspect of a system requires fundamental change in other aspects in order for it to be successful" (Reigeluth, 1994, p. 3). Thus, change initiatives in educational development should not only consider one level of a HEI but "must pervade all levels of the system" (ibid.). There is ample research following this systemic perspective, providing an number of models for change in educational systems (eg. Diamond, 2008). Still, practical initiatives concerning the implementation of innovations in teaching and learning are often limited to qualifying teachers as well as on designing teaching and learning environments on the course level. Accordingly, educational development centres regard improving teaching and learning methods as their main task (Gosling, 2009). While addressing individual teachers and innovative learning designs may actually be one suitable line of action to generate innovative practices and showcases, several factors limit the scope of such initiatives:

- Teachers applying innovative methods and technology for teaching and learning often perceive their efforts as "lone battles in complex organizational settings" (D'Andrea & Gosling, 2005, p. 5). If changes stay limited to individual initiatives and single courses, their impact on student learning remains minimal compared to the total of learning experiences students undergo during their time of study. If teachers perceive the relevance of their efforts to remain minimal and lack support (e.g. by access to resources), frustration often leads them to abandon innovations and fall back to "conventional" practices.
- Changes on the course level can be overlaid by factors which are not within the scope of the individual teacher. For example, the tight curriculum of a study programme can prevent students from engaging in resource-intensive learning activities such as project work or problem-oriented learning. Such effects as for

a perspective on student learning that reaches beyond the individual course. Rather students' study-related learning activities have to be regarded in unison and orchestrated in a sensible way.

- Initiatives aiming at supporting individual teachers or at developing innovative teaching and learning scenarios on the course level tend to peter out after the innovation phase when initial funding and support are no longer provided (Hannan & Silver, 2000; D'Andrea & Gosling, 2005, S. 5). Developmental initiatives such as the introduction of innovative teaching and learning technology may cause initial enthusiasm but often fail to result in long-term changes: "Embedded change has often failed to occur in institutions because the principal proponents of the developmental culture in institutions, often the staff in educational development centers, have focused on individual development" (D'Andrea & Gosling, 2005, p. 16).
- Contrariwise, initiatives that start at the organizational level and fail to involve the individual teachers and learners equally fail to generate actual change in the practices of teaching and learning. The abovementioned introduction of learning management systems is a prominent example thereof (Schulmeister, 2006): LMS have been implemented in many HEI with the initial intention to e.g. foster blended learning and support interaction between teachers and learners in distance settings. Quite often, however, LMS have been and are used solely for administrative purposes and the distribution of electronic texts. This illustrates that the sole provision of any technology will rarely lead to the desired changes of teaching and learning practices.

These challenges considered, we argue for an approach to educational development in HEI that focuses not only on teachers and the course level, but addresses different action levels within the university at a time to arrive at more sustainable changes in the teaching and learning practices. To concretize such a whole-institution approach to educational development we introduce the concept of *Learning Culture*.

3.2 Learning Culture as a conceptual framework for a whole-institution approach to educational development at HEI

Learning Culture encompasses all the aspects within a HEI that impact on students' learning processes and – as a consequence – also influence their learning outcomes. While often the term Learning Culture is limited to the prevalent teaching and learning methods (Jenert, Zellweger Moser, Dommen & Gebhardt, 2009a; with regard to eLearning see Euler, Hasanbegovic, Kerres & et al., 2006), we widen the scope conceiving Learning Culture as a construct that encompasses different institutional levels of a HEI, ranging from the individual members (i.e. teachers and students) to teaching and learning processes within and outside the classroom to organization-wide strategic aspects which impact on teaching and learning. Consequently, our understanding of Learning Culture draws heavily on the basic ideas of systemic educational development (cf. Reigeluth & Garfinkle, 1994) and organizational change at HEI (Boyce, 2003; Collis & van der Wende, 2002; Scott, 2003). Instead of focusing on the (social and structural) dynamics of change processes, the Learning Culture construct decidedly defines a number of indicators (cf. tables 1-3) impacting on student learning. Those indicators are regarded vantage points for influencing student learning on different organizational levels.

The relevance of focusing on those different action levels within a HEI can be illustrated with the example of an educational development initiative. The initiative's aim is the promotion of more *self-regulated learning* throughout the course of study. *Web 2.0 tools* (such as wikis or e-portfolios) are deemed an adequate way for technologically supporting such learning scenarios. To become effective, such an initiative requires *teachers and students* to develop an attitude towards teaching and learning that embraces the ideas of self-organized and active learners and teachers who act as coaches for learning. Furthermore, teachers and students need competencies in using social media in a way that actually supports self-regulated learning processes. These individual conditions can be regarded as prerequisites for the development of *teaching and learning scenarios* fostering self-regulated learning processes, e.g. by promoting project work or authentic problem-solving. This means that the framing conditions for teaching and learning have to be set in a way that enables such learning scenarios, e.g. through adequate technological support and a flexible curriculum. To accomplish these changes on the level of the individual teachers and learners as well as concerning teaching and learning practices, systematic support has to be provided. Therefore, the development initiative has to be relevant to the *HEI's strategic agenda*. To provide the framing conditions and resources for a sustainable implementation of the educational development initiative requires strategic decisions on the organizational level.

This example highlights that it is important for educational development initiatives not to remain limited to one area of action but to take on a whole-institution perspective on teaching and learning at HEI. For deciding on appropriate strategies, it is especially relevant to understand the reciprocal interrelations between different institutional levels, e.g.: Which strategic decisions are necessary to provide adequate resources for teachers and learners to adopt new teaching and learning practices? To systematize such an institution-wide perspective on educational development, Jenert et al. (2009a) have conceptualized Learning Culture at HEI as a three-dimensional construct comprising (1) a *personal*, (2) a *pedagogical interactions* and (3) an *organizational* dimension.

> "In each of these three dimensions, learning culture becomes manifest in artifacts and rituals, which express underlying norms, values, attitudes, and assumptions. A learning culture provides orientation and identification for its members, conveying goals and expectations concerning learning. Learning cultures are not static, but subject to changes through the confrontation with societal challenges as well as through organization members' initiatives. Due to the heterogeneity within and between HEI, it can be assumed that at any point in time various learning cultures exist simultaneously within an organization" (Jenert et al., 2009a, p. 6).

3.2.1 The personal dimension of Learning Culture

The *personal dimension* focuses on those individual characteristics of learners considered relevant for formal and non-formal learning processes, i.e. their learning competencies in a broader sense. This dimension can thus be broken down into indicators concerning (a) *cognitive aspects* such as knowledge about different learning strategies and conceptions of learning (b) *learning-related skills* such as the situational application of learning strategies, and (c) *affective aspects* such as attitudes towards learning. Table 1 provides an overview of the indicators that specify the personal dimension of Learning Culture at HEI. The indicators have been derived from the scholarly literature in various fields of educational research (for further references see Jenert et al. (2009a)). On the right hand side of the table, each indicator is qualified with two opposing characteristics. These characteristics are stereotypical and define end points of continua in which the indicator can occur.

Table 1: Indicators specifying the personal Learning Culture dimension (cf. Jenert et al. 2009b).

Personal dimension	
INDICATOR	**CHARACTERISTICS OF INDICATOR**
Attitudes	
Motivation to study	Externally triggered utilitarian interest vs. intrinsic interest in personal development
Motivation for learning	Intrinsic vs. extrinsic
Learning emotions	Positive vs. negative
Responsibility for learning	Self-regulated vs. externally regulated
Learners' role perception	Proactive (co-constructor) vs. reactive (consumer)
Knowledge and skills	
Reflection of learning activities (metacognition)	High vs. low
Cognitive learning strategies	Surface vs. deep learning orientation

For educational development initiatives to be successful, it is crucially important to be aware of the learners' individual prerequisites as listed in Table 1. If the current state of these individual prerequisites does not match the requirements of an intended pedagogical interaction (e.g. the learners do not possess the necessary learning skills or motivations to learn in the intended ways), this can lead to "frictions" between the teachers' expectations and the students' conceptions of and behaviour within the learning situation (Vermunt & Verloop, 1999). Thus, the relationship between personal and pedagogical interactional aspects of Learning Culture suggest strategies that enable to detect and reduce such frictions by aligning students' learning competencies (encompassing the abovementioned knowledge, skills and attitudes) to the requirements of the intended teaching and learning scenarios (the characteristics of which are described within the pedagogical interactions dimension of Learning Culture) (Biggs, 2001, 2003).
The indicators of the personal Learning Culture dimension bear a close interrelation with the pedagogical interaction dimension described in the following passage: Students' individual dispositions towards learning (in terms of knowledge, skills, and attitudes) can be regarded as both prerequisites for and results of their experiences with teaching and learning processes. Students' attitudes towards and their approaches to learning are to a great extent influenced by their previous learning experiences. These experiences determine students' competencies and volitions concerning learning and thus have to be considered as prerequisites for the design of pedagogical interactions. In turn, each pedagogical interaction itself will impact on the learners' conceptions of and approaches to learning (Entwistle & Peterson, 2004; Struyven, Dochy, Janssens & Gielen, 2006; Tynjälä, 1997).

3.2.2 The pedagogical interactions dimension of Learning Culture

The *pedagogical interactions dimension* focuses on teachers' and learners' actions in the context of formal learning settings at HEI. This dimension looks at the teacher as a designer of learning environments which comprise learning goals, tasks and expectations, teaching and learning methods, and educational media and technologies. The students are viewed as the ones who are confronted with these learning environments and enact the various elements by interpreting tasks, reacting to methods and employing available resources. Concentrating on the characteristics of learning environments as well as teachers' and learners' actions, the dimension can be broken down into indicators covering (a) *aims and goals* as a basis for pedagogical interactions, (b) *tasks, methods, media and roles* which define the actual design of a learning environment, (c) *the social relationships* within the learning situation, (d) the *overall resources* defining the limits for the design of learning environments. Table 2 gives an overview of the indicators specifying these four aspects of the pedagogical interactions dimension of Learning Culture at HEI.

Table 2: Indicators specifying the pedagogical interactions Learning Culture dimension (cf. Jenert et al. 2009b).

Pedagogical interactions dimension	
INDICATOR	**CHARACTERISTICS OF INDICATOR**
Aims and goals	
Learning goals	Disciplinary and content oriented vs. problem and competency oriented
Learning outcomes	Reproduction of content vs. complex problem solving
Granularity of learning goals	Meticulous specifications vs. holistic problem formulation
Tasks, methods, media and roles	
Learning tasks	Reproduction of knowledge vs. problem solving
Learning materials	Supporting transmission of knowledge vs. supporting problem-solving activity
Role of teacher	Instructor vs. coach/mentor

Evaluation	Fostering individual development vs. aiming at social selection
Social relationship	
Social relationship between teacher and students	Hierarchical vs. participatory
Learning atmosphere	Competitive vs. supportive
Dedication of teachers	Issue-related vs. enthusiastic
Resources	
Flexibility of time frame for teaching and learning	Rigid vs. flexible
Learning facilities	High vs. low design flexibility of learning spaces

In addition to the interrelations with the personal Learning Culture dimension which have been elaborated above, the pedagogical interactions dimension is also closely related to the organizational dimension: Institutional expectations outlining what is considered high-quality teaching and learning set a general frame of reference for the design of pedagogical interactions. More specifically, outcome profiles on the level of study programmes provide orientation as to which kinds of learning outcomes are considered desirable and should thus be strived for in pedagogical interactions. Another close relation to the organizational dimension concerns the provision of the resources necessary for designing specific teaching and learning arrangements such as the physical and technological infrastructures for teaching and learning (e.g. rooms, technological support) but also personnel resources.

These relationships between the pedagogical interactions and the organizational dimensions of Learning Culture suggest strategies for analyzing prevalent practices of teaching and learning and compare them to the respective institutional visions. The same holds true concerning the analysis of available and necessary resources for accomplishing teaching and learning practices that comply with the established vision.

3.2.3 The organizational dimension of Learning Culture

The *organizational dimension* focuses on how teaching and learning is positioned within a HEI (as compared to e.g. research as their other main activity besides teaching). Consequently, this dimension comprises all those factors that are subject to (strategic) decisions on the institutional level and at the same time impact student learning. On the one hand, this influence can be direct, e.g. when a HEI decides to accredit informal learning by providing a certain amount of credit points for activities that seemingly contribute to the development of study-related competencies but are performed outside the formal course of study. On the other hand, the organizational influence on student learning can be indirect, i.e. mediated through the teachers, e.g. when a HEI decides to provide obligatory trainings to all incoming teachers as a means to enhance the educational quality. The organizational dimension can be broken down into indicators covering (a) *expectations* providing orientation for teachers and learners of what is considered "good" teaching and learning, (b) *socialization to higher education* introducing teachers and students to what are considered typical and feasible practices of teaching and learning, (c) the *design of study programmes* defining the curricular freedoms and obligations in which teaching and learning activities can be executed, and (d) education-related *organizational development* providing a systematic approach for continuously developing teaching and learning at a HEI. Table 3 provides an overview of the various indicators that specify the organizational dimension of Learning Culture at HEI.

Table 3: Indicators specifying the personal Learning Culture dimension (cf. Jenert et al. 2009b).

Organizational dimension	
INDICATOR	**CHARACTERISTICS OF INDICATOR**
Expectations	
Articulation of competencies to be developed by students	Elaborated vs. undifferentiated
Communication of expectations	Continuous and insistent vs. episodic and vague
Expectations towards the quality of teaching	Elaborated vs. undifferentiated
Quality standards for teaching	Binding vs. non-binding
Socialization to higher education	
Student introduction to studying	Systematic vs. at random
Faculty introduction to teaching	Systematic vs. at random ("learning by doing")
Design of study programmes	
Students' degree of freedom of study organisation.	High vs. low
Possibilities for extra-curricular activities	High vs. low
Infrastructure for informal learning	Pronounced vs. not available
Regulations for course design to be followed by faculty	Assertive vs. inspiring/non-binding
Incentives for innovations in teaching	Elaborated vs. inexistent
Appreciation/reward of teaching	High vs. low
Teaching-related exchange between faculty	Intensive vs. sporadic
Possibilities for interaction between faculty and students	Supported vs. inhibited by organisational set-up
Organizational development	
Quality assurance in teaching	Control-focused vs. development-oriented
Support and continuous education for faculty	Systematic vs. random offerings
Involvement of faculty into the development of study programmes	Pro-active vs. reactive
Involvement of students into the development of teaching and learning	Systematically integrated vs. ignored

Many of the Learning Culture indicators within the organizational dimension refer to aspects which are frequently considered as *given conditions* rather than *starting points* for educational development. This is especially true for strategic and administrative decisions such as infrastructures for informal learning or the definition of teaching loads. The proposed construct of Learning Culture at HEI decidedly regards these organizational aspects (which for the most part cannot be directly influenced either by individual teachers or

learners) as integral parts which have to be cautiously considered and eventually changed when implementing educational innovations when pursuing educational development.

3.3 The concept of Learning Culture as a heuristic for educational development

Conceptualizing Learning Culture as this three-dimensional construct provides the theoretical foundations for a specific understanding of educational development. Educational development is not regarded as isolated initiatives that aim at either developing teachers' competencies or at implementing new teaching and learning methods and tools. Rather, the concept of Learning Culture suggests to *align* actions on all three dimensions in order to arrive at sustainable developments. Such an institution-wide conceptualization tries to avoid that educational development either (a) focuses solely on the management and policy level, thereby neglecting the pedagogical core of education or (b) limiting development to the practice of teaching and learning without regarding the strategic dimensions of development (Resnick & Williams Hall, 1998). In contrast, the aim is to conceptualize development initiatives in a sustainable way by assuring both, change on the level of teaching and learning practices as well as strategic support on the organizational level.

In addition to these conceptual clarifications, the Learning Culture construct with the indicators exhibited in Tables 1 to 3 can also be used in more practical ways as a heuristic framework for preparing, executing, and evaluating educational development initiatives:

- *Analyzing prevalent Learning Cultures.* To gain an in-depth picture of the prevalent Learning Culture at a HEI prior to the planning of implementation strategies is a crucial, yet often neglected part of educational development. The Learning Culture concept provides a framework for such an analysis. The aim of analyzing prevalent Learning Cultures is to determine to which degree an organization or an organizational unit is ready to embrace an educational development initiative. The degree of readiness can be determined for the organizational-structural level (i.e. concerning strategies and resources) as well as the personal level (i.e. people's competencies and emotions).
- *Developing a vision for educational development.* The Learning Culture construct can be employed to develop a precise and consistent vision for teaching and learning within a HEI. The three dimensions with their respective indicators provide a tool for setting up ideas for development that go beyond global mission statements, but tackle concrete developmental areas and measures. Rather, the Learning Culture framework enables the various stakeholders at a HEI to discuss where the status quo of teaching and learning already matches the desired state and where developmental action needs to be taken. Furthermore, considering all Learning Culture dimensions helps to build up a consistent and aligned vision for educational development avoiding frictions and illusory ideas.
- *Planning feasible developmental initiatives.* Founding educational development on a thorough analysis helps prevent precipitous actions focusing solely on the most obvious course of action (e.g. implementing educational technology on the course level without considering the institutional strategy for teaching and learning). Quite often, sustainable development will ask for parallel actions on different Learning Culture dimensions. For example, the introduction of new learning technologies may require initiatives to build up relevant competencies and positive attitudes on the personal dimension. On the pedagogical interactions dimension, adequate teaching and learning scenarios have to be proposed to exploit the new technologies' potentials. And on the organizational dimension, the contribution of the new technology-enhanced learning initiative to the institution's overall educational strategy has to be laid out in order to have the necessary resources provided by the HEI's management.
- *Evaluating educational development initiatives.* Finally, the Learning Culture framework provides a concise frame of reference for the evaluation of developmental initiatives at HEI. The Learning Culture indicators with their respective characteristics can be used to assess whether developmental actions have had the intended and desired effects. Again, by looking at all three learning culture dimensions on different institutional levels, such an assessment can better judge whether the established changes in the practices of teaching and learning are sustainably anchored in the HEI.

As outlined above for the sustainability of educational development, it is especially important to consider the *interrelations* between the three Learning Culture dimensions. In sections 3.2.1 to 3.2.3, exemplary strategies for

addressing the most obvious of these interrelations have been proposed with the description of each Learning Culture dimension. For practitioners working in educational development, the demand to address various institutional levels may imply new challenges. This is especially true with regard to the organizational dimension of Learning Culture with many indicators addressing strategic issues which are decided mostly at a political level within a HEI. Thus, the notion of designing Learning Culture as an institution-wide process, may well broaden the scope of educational development (Jenert & Brahm, in press).

4. Learning Culture as a guiding concept for educational development at HEI: Implications for educational research

Adopting the proposed understanding of Learning Culture as a guiding concept for innovating teaching and learning at HEI also implies a distinct perspective concerning the *scope of educational research* and its *relation to educational development* at HEI.

One major strand of research on teaching and learning in higher education focuses on *describing, systemizing,* and *understanding* the status quo, i.e. by inquiring into conceptions of and approaches to teaching and learning. Another line of research is concerned with teaching and learning methods and technological tools. Such (mostly quasi-experimental) research typically aims at determining the effects of teaching and learning methods in relatively narrow educational settings such as individual courses and single classes (Reinmann, 2007). While these types of research generate valuable contributions in the sense of general (and generalizeable) knowledge, they do hardly cover the topics of *design* and *implementation* (Euler, 2008). In contrast, the concept of Learning Culture puts a strong emphasis on these topics: Shaping Learning Cultures at HEI means to design and to implement educational innovations in a way that will generate sustainable changes in the practices of teaching and learning.

Educational research within the Learning Culture framework is challenged to not only describe isolated and generalized effects of educational innovations. Rather, it is necessary to also inquire into the *conditions* under which the adoption of an innovation is considered sensible and which are prerequisites for a sustainable implementation (Reinmann, 2010). Thus, educational research that aims at shaping Learning Cultures appreciates the fact that educational innovations are not implemented into a vacuum. Rather, they meet with existing organizational realities which determine if and how educational innovations are actually taken up in the practice of teaching and learning. If educational research takes it as its responsibility to generate sustainable innovations, then these organizational conditions should be regarded as integral aspects of the research process. This implies additional kinds of research questions. In addition to determining the immediate effects of educational innovations within the learning process, it should also be asked: How will the innovation contribute to/advance the HEI's educational strategy? Which individual and organizational conditions can be seen as prerequisites for a sustainable implementation of the innovation within a HEI?

Considering it an aim of educational research to design and eventually change aspects of a HEI's Learning Culture means that this design process itself as well as its rationale become part of the research process. Methodologies such as the so-called design-based research (The Design-Based Research Collective, 2003) account for these demands by conducting educational research on theoretically-based teaching and learning scenarios within real-life contexts. Design-based research aims at developing educational designs that "work" within the realities of educational institutions. At the same time, design and redesign processes are accompanied by research contributing to the development of educational theories: "Design-based research goes beyond merely designing and testing particular interventions. Interventions embody specific theoretical claims about teaching and learning, and reflect a commitment to understanding the relationships among theory, designed artifacts, and practice" (The Design-Based Research Collective, 2003, p. 6). As it is based on the scholarly literature *and* is directed towards the institution-wide practices connected with teaching and learning at HEI, the Learning Culture construct can serve as a frame of reference for determining design-oriented research problems. Here, research projects that bridge two or more learning culture dimensions in tackling one educational problem are considered as especially fruitful and innovative for they address the institutional complexity that characterizes teaching and learning at HEI.

5. Conclusion

This paper started out with a synopsis of normative concepts for educational development in higher education that have been around for many years. It is above all societal dynamics that nowadays press those responsible for teaching and learning at HEI to actually implement changes concerning the educational practices. As has been emphasized, while there are plenty of normative concepts about "good" teaching and learning, strategies for a systematic and effective implementation of such ideas into the everyday practice of teaching and learning are far less advanced. In my opinion this lack of systematic, theoretically founded and empirically substantiated implementation or change strategies carries two major dangers: The *first* danger arises if educational development is reduced to the course level and addresses only teaching and learning methods, technologies and individual approaches to teaching and learning. In this case, development initiatives will quite often fail to generate broad-scale and long term impact as a result of the lack of institution-wide thinking and acting. The *second* danger arises, if educational development fails to develop feasible strategies for sustainable large-scale initiatives, changes concerning the educational landscape of a HEI will be dominated by administrative and managerial considerations. The flawed implementation of LMS can be regarded a prominent example thereof.

The concept of Learning Culture suggests to take on a whole-institution perspective on educational development that (1) integrates individual, pedagogical and organizational aspects but (2) takes students' learning as the point of reference for all three dimensions. Thus, Learning Culture as a construct can be used as a framework that takes into account different institutional levels but does so from a pedagogical point of view. This can be regarded as an attempt to address the institution-wide scope of designing teaching and learning at HEI without leaving all design processes that go beyond the course level to administrative and managerial logics.

References

Barr, R. B. & Tagg, J. (1995). From teaching to learning – a new paradigm for under-graduate education. *Change, 27* (6), 12-25.

Biggs, J. (1999). What the Student Does: teaching for enhanced learning. *Higher Education Research & Development, 18* (1), 57-75.

Biggs, J. (2001). The reflective institution: Assuring and enhancing the quality of teaching and learning. *Higher Education, 41*, 221–238.

Biggs, J. (2003). *Teaching for Quality Learning at University* (2). Maidenhead: Open University Press.

Bjornavold, J. (2000). *Making Learning Visible. Identification, assessment and recognition of non-formal learning in Europe*. Thessaloniki: CEDEFOP.

Blackmore, P. (2009). Conceptions of development in higher education institutions. *Studies in Higher Education, 34* (6), 663-676.

Bleicher, K. (2002). Paradigmawechsel zur Wissensgesellschaft - Veränderte Spielregeln erfordern neue Strategien, Strukturen und Kulturen. In K. Bleicher & J. Berthel (Hrsg.), *Auf dem Weg in die Wissensgesellschaft. Veränderte Strategien, Strukturen und Kulturen* (S. 57-85). Frankfurt am Main: Frankfurter Allgemeine Zeitung.

Bleiklie, I. (2005). Organizing higher education in a knowledge society. *Higher Education, 49* (1), 31-59.

Boyce, M. E. (2003). Organizational Learning is Essential to Achieving and Sustaining Change in Higher Education. *Innovative Higher Education, 28* (2), 119-136.

Bransford, J., Brown, A. & Cocking, R. (1999). *How people learn: Brain, mind, experience, and school. Committee on Developments in the Science of Learning, National Research Council.* Washington, DC: National Academy Press.

Brown, J. S., Collins, A. & Duguid, P. (1989). Situated Cognition and the Culture of Learning. *Educational Researcher, 18* (1), 32-42.

Cendon, E. (Ed.). (2008). *Implementing competence orientation and learning outcomes in higher education: processes and practices in five countries*. Krems: Danube University Krems.

Chur, D. (2002). (Aus-) Bildungsqualität verbessern: Das Heidelberger Modell. *DUZ, 2002* (3), I-IV.

Claxton, G. (2007). Expanding young People's Capacity to Learn. *British Journal of Educational Studies, 55* (2), 115-134.

Clifford, V. A. (1999). The Development of Autonomous Learners in a University Setting. *Higher Education Research & Development, 18* (1), 115-128.

Cole, M. & Wertsch, J. V. (1996). Beyond the individual-social antimony in discussion of Piaget and Vygotsky. *Human Development, 39*, 250-256.
Collis, B. & van der Wende, M. (2002). *Models of Technology and Change in Higher Education*. Report of the Center for Higher Education Policy Studies. Twente: University of Twente.
D'Andrea, V. & Gosling, D. (2005). *Improving Teaching and Learning in Higher Education: A Whole Institution Approach*. Milton Keynes: Open University Press.
Diamond, R. M. (2008). *Designing and Assessing Courses and Curricula: A Practical Guide*. San Francisco: Jossey-Bass.
Entwistle, N. & Peterson, E. R. (2004). Conceptions of learning and knowledge in higher education: relationships with study behaviour and influences of learning environments. *International Journal of Educational Research, 41* (6), 407-428.
Euler, D. (2004). *Sozialkompetenzen bestimmen, fördern und prüfen: Grundfragen und theoretische Fundierung*. St. Gallen: Druckerei Hermann Brägger.
Euler, D. (2008). Unter Weisskittel- und Blaukittelforschern: Aufgaben und Stellenwert der Berufsbildungsforschung. *Wissenschaftliche Diskussionspapiere* (94), 43-74.
Euler, D. & Hahn, A. (2007). *Wirtschaftsdidaktik* (2). Bern: Haupt Verlag.
Euler, D., Hasanbegovic, J., Kerres, M. et al. (2006). *Handbuch der Kompetenzentwicklung für E-Learning Innovationen. Eine Handlungsorientierung für innovative Bildungsarbeit in der Hochschule*. Bern: Hans Huber.
Gaskell, G., Brookes, D. & Brierley, S. (1994). Accrediting Students for Extra-curricular Learning. In A. Jenkins & L. Walker (Eds.), *Developing student capabilities through modular courses* (S. 101-107). London: Kogan Page.
Hannan, A. & Silver, H. (2000). *Innovating Higher Education: Teaching, Learning and Institutional Cultures*. Buckingham: SRHE/Open University Press.
Hubbal, H., Gold, N., Nighty, J. et al. (2007). Supporting the Implementation of Externally Generated Learning Outcomes and Learning-Centered Curriculum Development: An Integrated Framework. *New Directions for Teaching and Learning, 112*, 93-105.
Jenert, T. & Brahm, T. (in press). „Blended Professionals“ als Akteure einer institutionsweiten Hochschulentwicklung. *Zeitschrift für Hochschulentwicklung*.
Jenert, T., Zellweger Moser, F., Dommen, J. et al. (2009a). *Lernkulturen an Hochschulen*. St. Gallen: Institut für Wirtschaftspädagogik, Universität St. Gallen. Elektronisch verfügbar: http://www.iwp.unisg.ch/org/iwp/web.nsf/df76d44a9ef44c6cc12568e400393eb2/1301ec41877058e4c125721800537dce/$FILE/Lernkulturen_an_Hochschulen_2009.pdf
Jenert, T., Dommen, J., Gebhardt, A. & Zellweger Moser, F. (2009b). *Learning Cultures at Higher Education Institutions* (Short Version). St. Gallen: Institut für Wirtschaftspädagogik. Available electronically: http://www.iwp.unisg.ch/org/iwp/web.nsf/df76d44a9ef44c6cc12568e400393eb2/1301ec41877058e4c125721800537dce/$FILE/ATTJOBHB/LK_Paper_english_2009_11_03.pdf
Kinzie, J. & Kuh, G. D. (2007). Creating a Student-Centered Culture. In G. L. Kramer & Associates (Eds.), *Fostering Student Success in the Campus Community* (S. 17-43). San Francisco: Jossey-Bass.
Kirchhöfer, D. (2004). *Lernkultur Kompetenzentwicklung: Begriffliche Grundlagen.* Berlin.
Lave, J. & Wenger, E. (1991). *Situated Learning. Legitimate peripheral participation*. Cambridge: University of Cambridge
Liu, C. H. & Matthews, R. (2003). Vygotsky's philosophy: Constructivism and its criticisms examined. *International Education Journal, 6* (3), 386-399.
Reigeluth, C. M. (1994). The Imperative of Systemic Change. In C. M. Reigeluth & R. J. Garfinkle (Eds.), *Systemic change in education* (pp. 3-11). Englewood Cliffs, NJ: Educational Technology Publications.
Reigeluth C. M. & Garfinkle, R. J. (Eds.), *Systemic change in education*. Englewood Cliffs, NJ: Educational Technology Publications
Reinmann, G. (2007). Innovationskrise in der Bildungsforschung: Von Interessenkämpfen und ungenutzten Chancen einer Hard-to-do-Science. In G. Reinmann & J. Kahlert (Hrsg.), *Der Nutzen wird vertagt...: Bildungswissenschaften im Spannungsfeld zwischen wissenschaftlicher Profilbildung und praktischem Mehrwert* (S. 198-220). Lengerich: Pabst.
Reinmann, G. (2010). Mögliche Wege der Erkenntnis in den Bildungswissenschaften. In G. Jüttemann & W. Mack (Hrsg.), *Konkrete Psychologie: Die Gestaltungsanalyse der Handlungswelt.* (S. S. 237-252). Lengerich: Pabst.
Resnick, L. B. & Williams Hall, M. (1998). Learning organisations for sustainable education reform. *Daedalus, 127* (4), 88-118.
Schermutzki, M. (2008). Learning outcomes – Lernergebnisse: Begriffe, Zusammenhänge, Umsetzung und Erfolgsermittlung Lernergebnisse und Kompetenzvermittlung als elementare Orientierungen des

Bologna-Prozesses. In W. Benz et al. (Hrsg.), *Handbuch Qualität in Studium und Lehre : Evaluation nutzen, Akkreditierung sichern, Profil schärfen* (S. 1-30, Kapitel E 33.33). Berlin: Raabe.

Schmidt, H. G., Van Der Molen, H. T., Te Winkel, W. W. R. et al. (2009). Constructivist, Problem-Based Learning Does Work: A Meta-Analysis of Curricular Comparisons Involving a Single Medical School. *Educational Psychologist, 44* (4), 227-249.

Schulmeister, R. (2006). *eLearning Einsichten und Aussichten*. München: Oldenbourg.

Scott, G (2003): Effective change management in higher education, *Educause Review, 38* (6), 64-80.

Struyven, K., Dochy, F., Janssens, S. et al. (2006). On the dynamics of students' approaches to learning: The effects of the teaching/learning environment. *Learning and Instruction, 16*, 279-294.

The Design-Based Research Collective. (2003). Design-Based Research: An Emerging Paradigm for Educational Inquiry. *Educational Researcher, 32* (1), 5-8.

Trow, M. (1974). *Problems in the transition from elite to mass higher education. In OECD Policies for Higher Education. General report on the conference on future structures of post-secondary education*. Paris: OECD.

Trow, M. (2005). Reflections on the Transition from Elite to Mass to Universal Access: Forms and Phases of Higher Education in Modern Societies since WWII. In J. J. F. Forest & P. G. Altbach (Eds.), *International Handbook of Higher Education.* (S. 243-280). Dodrecht: Springer.

Tynjälä, P. (1997). Developing Education Students' Conceptions of the Learning Process in Different Learning Environments. *Learning and Instruction, 7* (3), 277-292.

UNESCO. (2005). *Towards Knowledge Societies*. Available electronically http://unesdoc.unesco.org/images/0014/001418/141843e.pdf (2010-02-07).

Välimaa, J. & Hoffmann, D. (2008). Knowledge society discourse and higher education. *Higher Education, 56* (3), 265-285.

Vermunt, J. D. & Verloop, N. (1999). Congruence and friction between learning and teaching. *Learning and Instruction, 9*, 257-280.

Wildt, J. (2004). 'The Shift from Teaching to Learning': Thesen zum Wandel der Lernkultur in modularisierten Studiengängen. In H. Ehlert & U. Welbers (Hrsg.), *Qualitätssicherung und Studienreform. Strategie- und Programmentwicklung für Fachbereiche und Hochschulen im Rahmen von Zielvereinbarungen am Beispiel der Heinrich-Heine-Universität Düsseldorf* (S. 168-178). Düsseldorf.

Zimmerman, B. J. (2002). Becoming a Self-Regulated Learner: An Overview. *Theory into Practice, 41* (2), 64-70.