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**Editorial: Competence-oriented study – didactic reform
of higher education or Bologna-Rhetoric?**

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Competence-oriented study – didactic reform of higher education or Bologna-Rhetoric?

Abstract

The planned and realized at least on a formal level standardization of qualifications in the EU was enforced in 2010. But the ongoing implementation problems and criticisms throw a bad light on the concept of the Bologna process. The key objectives - a faster career and the recognition of achievements over the country's borders - have not been achieved in Germany. An improvement of the reform takes place only on a contextual level, instead of taking into account the core aspect of the programmatic: the competence orientation.

Kompetenzorientiert studieren – didaktische Hochschulreform oder Bologna-Rhetorik?

Zusammenfassung

Die angestrebte und zumindest auf formaler Ebene realisierte Vereinheitlichung von Studienabschlüssen in der EU wurde 2010 durchgesetzt. Doch die anhaltenden Implementierungsprobleme und Kritiken werfen kein gutes Licht auf das Konzept des Bologna-Prozesses. Die zentralen Ziele – ein schnellerer Berufseinstieg und die Anerkennung von Leistungen über die Landesgrenzen hinaus - wurden in Deutschland bisher nicht erreicht. Eine Verbesserung der Reform findet von den Beteiligten zurzeit lediglich auf kontextueller Ebene statt und berücksichtigt dabei nicht den Kernaspekt der Programmatik: die Kompetenzorientierung.

1 Initial point

Including the year 2010 we are disposing – at least formally - of a self-contained European Higher Education Area. However, this projected milestone of the Bologna-process still appears to be nothing else than a small stone in consideration of the continuous implementation-difficulties in the member states and regarding furthermore the significant criticism, which has become so intensive in the meantime, that even in a few states a complete return to the national conception has been discussed. The considerable doctrinairism and compression of studies, caused by a rigid structuring of study paths and the tremendous increase of examinations in combination with a quantified Credit system, are observed in a particular sceptical manner. In this context, the two key objectives – a Europe-wide permeability and a faster entry into a profession – have not been achieved so far (at least, as it is regarded from the German point of view). Indeed, the unified form of the performance description and its emphasis implicate a non-complicated categorization-system and a simplified system of crediting periods in case of a change of the study path or in case of transitions, but on the other hand one should consider the tenfold increase of study-possibilities in Germany and also their confusing entry- and transition-conditions. The category "studies" had been dissolved and was replaced by a portfolio of particles, which have to be decoded in all cases. Whether and under which circumstances a recognition will be performed, is of no degree generally manageable; but it is rather at the discretion of the respective tertiary institution. Furthermore, viewed from a national perspective, also a faster entry into professional life meets with a (temporary) refusal up to nowadays, which might be seen as a consequence of the implementation of the bachelor's degree. At Universities of Applied Sciences it simply replaced the Diploma without any kind of temporal effects, at universities it is in most cases on the same level as the former intermediate examination, because there most of the students are aspiring to receive the master's degree. The temporal delay, which was particularly caused by the graduation and the resulting transition-complications (bachelor thesis, the insignificant number of master-course-credits, which can be achieved during a bachelor's degree course, the restrictions concerning the entrance to a master's degree course) is tremendous and it amounts – depending on the kind of studies – to two till four semesters. It should be added that the summative standard periods of studies of master's degree courses were elongated on average by 2 or 3 semesters. In accordance with the Federal Statistical Office the standard period of study – approximating all kind of study paths in Germany - is observed by less than 40 % of the students; in mechanical engineering, in linguistic sciences and in sport sciences these are less than 30 % (updated in 2012).

In contradistinction to these points of criticism, the Bologna-process was regarded as a «European story of success», as it was formulated by the BMBF in a press release of 2013-07-15. This is sparsely justified by its content, but especially by figures, which are documenting the progresses in the Europe-wide implementation. In a later press release of the 2013-10-28, implementation difficulties were acknowledged, which should be solved via the readjusted «trans-border standards of structure concerning the accreditation of bachelor and master degree courses» of the Standing Conference of the Ministers of Education and Cultural Affairs of the «Länder» of the Federal Republic of Germany (KMK). Thereby, structural aspects - such as the operability of studies and the frequency of examinations - but also

contentual aspects such as mobility and appreciation are focalized. Whether or to what extent thereby the reform will become a success for all participants by using additional measures, which might follow, cannot be hardly prognosticated nowadays. However, it is certain that a predominant number of proponents and of opponents of the Bologna-reform are having a closer look at its contextual aspects. As a consequence, an important contentual aspect of this set of problems has been nearly buried in oblivion: the competence-based orientation.

From where does this kind of new objective concerning tertiary education come from? Which improvements, when comparing it with earlier study-objectives, are intended with it? How the competencies will be curricularly implemented and which changes in respect of science will be caused? A plenty of questions, which can only be fragmentarily answered, according to the current state of research. However, it will be at least attempted below to come closer to it and to discuss it perhaps finally, whether there are university-didactic-consequences, what they will be like and whether they might be seen as a part of the competence-aspect of the Bologna-process.

2 How does the competence-conception come into the Bologna-reform?

One of the most important objectives within the Bologna-process is a Europe-wide system of generally comprehensible and in particular comparable degrees. In order to realize this aim, a transferable credit system (ECTS) was established as a primary ambition. Moreover, the EU-commission passed in 2008 the European Qualifications Framework for a Lifelong Learning (EQF). At the end of a multi-annual development- and acceptance-process a frame model of eight levels was concretized, in which the different levels of working and learning are linearly determined. The 3 categorization-parameters are knowledge, skills and competencies, whereas the competencies are differentiated into two facets; one aspect is social responsibility (which accentuates the general education) and the other one is self-responsibility (which accentuates the professional education).

In advance of this conception the Qualification Framework for German Higher Education Degrees (QDH) was passed already in 2005 by the „Standing Conference of the Ministers of Education and Cultural Affairs of the „Länder“ in the Federal Republic of Germany“ in cooperation with the German Rectors' Conference and the Federal Ministry of Education and Research with the same intention, which was to promote the Bologna-process. Since then, the QDH has been utilized as a focal instrument for the accreditation and therefore it has been used for the curricular determination of the consecutive study paths. Also in this context competencies play an important role. They are differentiated into instrumental, systematic and communicative competencies and they are comprehensively associated with the aspect of expertise. However, this aspect does not stand alone – as it is in a similar way determined in the EQF – to the contrary, aspects like knowledge and comprehension are also fundamentally anchored in the QDH. Hereby, the spread of knowledge and its consolidation are viewed to be at least as important as its accessibility and its application.

Competencies play a central role in the Bologna-reform. A possibility of standardization and also a certain transferability are attached to them in the same way, but also some kind of

emergence and a practice-relevance. However, this fundament is of no degree built up - regarding its content - by an appropriate competence-construction, but contrary to this by a relatively vague premise, which had been transferred from the Anglo-Saxon approach of education, the so-called «outcome-orientation», which is misleadingly often equated with competence-orientation. In the additional information «note 4» - belonging to the EQF of 2011- «Using Learning Outcomes» it is determined that „Learning outcomes have been defined as a statement of what a learner is expected to know, understand, or be able to do at the end of a learning process» (European Commission, 12). In this connection expertise is classified as one possible of several cogitable learning-outcomes. As an affirmation of this effect the EQF-recommendation is mentioned, in which Learning-Outcomes and competencies are confronted: according to this, the first are statements «of what a learner knows, understands and is able to do on completion of a learning process.. », the second are statements like «the proven ability to use knowledge, skills and personal, social and/or methodological abilities in work, or study situations and in professional and personal development... » (ebd.13). The central lynchpin of this kind of outcome-orientation is therefore not the know-how in the application-situation, but the one of the examination-situation. In the assessment specifications (ebd. 26f) of this documentation this fact becomes particularly apparent, because there it is described with several examples, how specific learning-outcomes have been concretized by the determination of examination-requirements. At least here it becomes clear that the learning-target-operationalization, which was embellished by Robert Mager during the 1960s (as it is seen historically), has become again up-to-date as a rigid realization-version of the curriculum-approach of Saul B. Robinsohn. Above all, the existing behaviorist background, which should be viewed to be antiquated, could be seen as something embarrassing.

For this reason, it should be mentioned - more as an advantage than as a deficiency - that the competencies-orientation within the Bologna-reform has not been by no means consistent or consequently molded regarding the aspect of the outcome-orientation and that it has not been realized yet. However, it remains ambiguous, what should be defined with the term competencies viewed from the perspective of tertiary education.

3 The competence-construct

A consistent theoretical research of the competence-approach at the tertiary level appears to be complicated, because of its disciplinal variety and because of the thereby resulting multiplicity of access-possibilities and preoccupations with science and practice. In addition, such specific access-possibilities have generally established themselves only in a few specialist disciplines. Interdisciplinary university-didactics, which would be binding in terms of a meta-didactic for all areas of higher education, have established themselves in the German-speaking area only fragmentarily and is not really scientifically funded. However - as a substitute for it - a domain-unspecific university-didactic position can be defined, when you reorientate yourself at the general targets of the university doctrine. This one could be basically defined as "conveying students to develop science-based and reconsidered independent and self dependent thinking and reaction." At this juncture, two basic

perspectives appear, on the one hand the one of science, on the other hand the one of appliance. One way leads to the point of the Higher Education Area; there research is a key aspect of professional activities. The other path leads outside of the institution of higher education; there research is in most of the cases a secondary aspect of professional activities.

Disregarding the really relevant question, how that kind of discrepancy can be observed in some of the specialist disciplines, a – in this context - not unimportant difference concerning the competencies-spectra of the two addressee-groups of high-school-education can be stated. For this reason, it has to be defined at first, what should be seen as competencies in this context.

Erpenbeck & Rosenstiel declared in 2003, that the term „competencies“ is theory-relative, that means that it is not consistently fixed and that it therefore should be defined in each situation. This is also valid for today, whereby in the German-speaking area something like a basic-theoretic consensus can be observed. The abstract initial point is ascribed in the postbehaviorism to White (1959) and Chomsky (1965), to which Erpenbeck & Heyse (2007) make recourse, when they describe competencies as dispositions for an individual and independent action (also Weinert, 2001). When following Rhein (2011, p. 219) competencies enable someone to perform actions - regarding aspects of the world of things, of the social world or symbolic aspects or of those depending on the doer himself. As it was defined by Kosakowsky (1981), dispositions can be regarded as the collectivity of all interior requirements for a mental regulation. The most important dispositions of operations, having been scientifically investigated so far, are the personal characteristics of human beings, their knowledge, their moral concepts, their mental attitudes, their experiences and their motives. Dispositional constructs – according to the actual status of research - have been affected by an emergence-difficulty (Rhein, 2010), which only permits an unsharp description of them. In this sense they are macroscopic characteristics of a complex system, which cannot be simply traced back to its separate components. Human behaviour is so complex, that it cannot be simply reduced to single dispositions; on the other hand, the cognition concerning the existence and occurrence of individual dispositions of actions only permits a conditional prediction of the execution of an action or of its quality. The emergent relationships between competence and performance, formerly prognosticated by Noam Chomsky, will always remain unsharp up to a certain degree and up to nowadays it has not been easily investigated in an empirical way. Therefore, the present research of competencies is split into two important lines: on the one hand there is the diagnostically influenced approach - here the models of competencies follow everything, which might be defined as performances; on the other hand there is a didactical strategy, in which the models of competencies follow all kinds of dispositions, that might be communicated by appropriate treatments (e.g. Pittich, 2013). As the QDH is regarded from the above-mentioned perspective, the author should be certainly assigned to the second line.

4 The model of competencies of the QDH

The search of an explicit model of competencies in the latest QDH (Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of

Germany, KMK 2005-04-21) has remained without success; instead, regarding the mainly used categories the following was declared: «Learning Outcomes can be found in both dialed categories (knowledge plus understanding and also expertise). The category "knowledge and understanding" describes the acquired competencies in view of the specialist knowledge acquisition (functional responsibility). The category „expertise“ includes the competencies, which enable graduates to apply their knowledge (methodological competence) and to be in a position to guarantee a transfer of knowledge. In addition, in this context the communicative and social competencies occur again. (KMK, 2005), see figure 1.

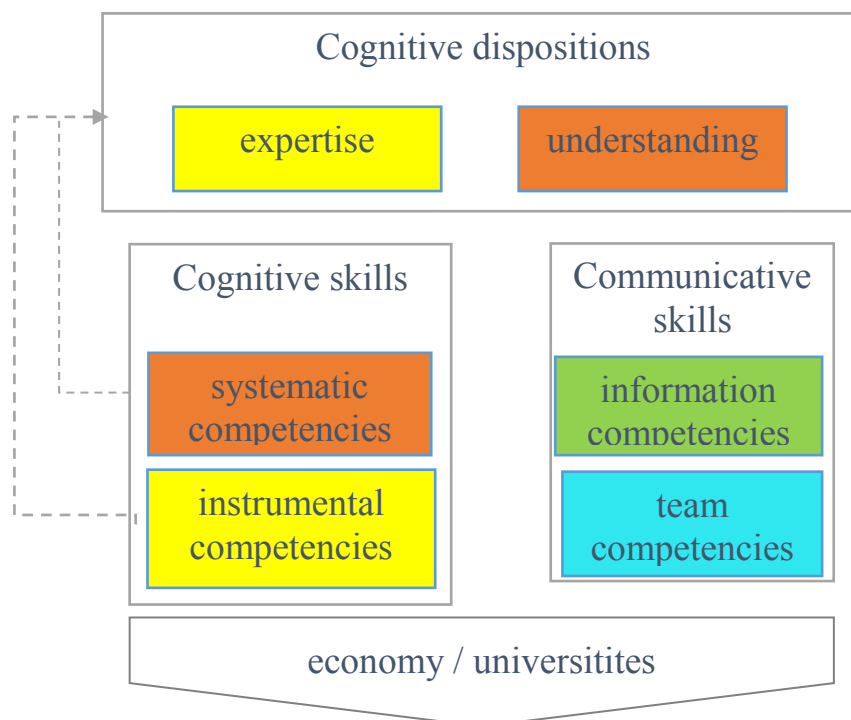


Fig. 1: Implied model of competences of QDH as an adaption of the „Dublin Descriptors“

This approach was developed in the EU-project TUNING (Tuning Educational Structures in Europe), which has been especially performed since 2000 for the realization of the „Lissabon strategy“ and also for the one of the Bologna-process by international experts (González, Wagenaar, 2008). Hereby the key objective is to give on the one hand an orientation aid to universities by an appropriate framework for the restructuring and recreation of their studiepaths and on the other hand to avoid an uniformity or synchronisation by simplified acceptances or adaptations of curricula. At that point of time, also the Danish, the Irish as well the UK Qualification-Frameworks and the Scottish Credit and Qualifications Framework were concurrently developed to the German template.

Thereby, the Anglo-Saxon approach has been consistently followed; in this one it is first of all insignificant, whether a learning outcome appears as a kind of knowledge or activity. The orientation concept for this approach are the «Dublin Descriptors» belonging to the Joint Quality Initiative. At first, knowledge loses its dispositional character – as far as activities are concerned – and in that way it is not assigned to it but it is subordinated. However, in the

more precise definition of professional competencies of the QDH this is partially disconfirmed, because here instrumental competencies are defined as „the ability to apply knowledge and understanding for their activity or for their profession“ (ebd.).

level	Bachelor	Master	Dr./Ph. D.
category			
knowlege	basics	spread and consolidation	specialization
understanding	teaching book	professional journals	transgression
systematic competencies	cohesive/judging	open/decisive	new/formative
instrumental competencies	direct application of knowledge	advanced application of knowledge	generating new knowledge
communicative competencies informative	level of the teaching book	„cristalline“ status of research	„fluid“ status of research
communicative competencies kollektive	teamparticipation	teamresponsibility	teamanagement

Tab. 1: taxonomic key of the QDH regarding the levels Bachelor, Master und DR./Ph.D.

Without lingering over the question of the consistency of this approach, in that case the logic of „a belt with braces“ was simply prosecuted. Whether knowledge is nothing else than a result of learning or whether it is decidedly relevant for activities is – when viewing it from that perspective - insignificant. The emergence-difficulties are hereby shirked in an elegant way – the theoretical conclusiveness is in this context only a marginal criterion. It is substantially impaired because of the inconsistency, which was caused by the coexistence of the categories „knowledge“ and „expertise“; because in this way dispositions and competencies might be equated. Another disruption might be indicated by adding the communicative competencies, because these cannot be related with the category „knowledge and understanding“ in contradistinction to the instrumental and methodical competencies. Theoretically observed this category is something like an adjunct, which is in addition self-inconsistent, because hereby the fields interaction and collectivity are placed side by side without any kind of conjunction. These main and partial categories of the QDH-approach are concretized on the 3 levels Bachelor, Master and Doctor (Dr.) or PHD (see index 1). This succession basically occurs in the development of a scientist; that means that it might be seen as a development of competencies in the direction of a scientific position. However, the two „final destinations“ Bachelor and Master are generally geared to the entry into a non-scientific activity. For this reason, both aim-perspectives of tertiary education are considered by the levels „Master“ and „Bachelor“ – as far as the level „Doctor“ is concerned this is not valid

any more – this level is only science-orientated. In the Länder-transgressing structure-prescriptions concerning the accreditation of Bachelor's and Master's degree courses (KMK, 2010) this fact is underlined, because Bachelor's degree courses should transfer profession-field-orientated qualifications beneath scientific basics and the competency of methods. On the other hand courses leading to the Master's degree should make precise distinctions between a scientific orientation and a non-scientific orientation: „Courses, leading to the Master's degree, conduce to the subject-specific and scientific specialisation and can be divided into the profile-types “application-orientated“ or “science-orientated“ (ebd.5). The fact that this one is partially contradictory to the overall concept, in which the Master is always regarded as a preparation for the graduation does not seem to disturb. In Germany the multiplicity of study paths is moulded by using the basic grate of the QDH. As far as their content is concerned all new study-path-regulations are determined by the QDH. Guarantors of its application and realization are finally the institutions of accreditation, which are nowadays always involved allover Germany in all structuring-processes concerning study. Whether or in which manner the claim to competence has been curricularly anchored at our tertiary institutions yet – regarding the content of the study plans - or how it will be performed in future is therefore principally in charge of an accreditation-committee; that is to say it depends on those peers, which play in each university discipline the role of extern evaluators in order to design – together with the university expert groups - the study paths conform to the Bologna-process.

5 Curriculum of studies and accreditations

When we have a closer look at study regulations of different disciplines and universities, consistency is scarcely perceptible regarding the realization of the demand of competencies of the QDH. In contradistinction to this objective different regulations do exist, e.g. the complete abandonment of explicit competencies (e.g. Bachelor of machine engineering in Stuttgart) or the precise description of competencies for each module (e.g. Bachelor of machine engineering TU Darmstadt). Theron it is recognizable that the demand for competencies is interpreted and accentuated by the accreditors in a different manner. When one is having a closer look at the competencies-orientated study regulations, in most cases only approaches to the QDH might be observed. In the module-manual of the Bachelor of machine engineering of the TU Darmstadt it is mentioned in the context of “qualification-objectives and competencies“: *The student is in a position to build up models of mechatronic systems and also of their components and to transfer them into mathematical equations and as well into diagrams of connections; in addition, he should be able to determine results regarding the static and dynamic character of mechatronic systems by using the simulation tool MATLAB and to interpret them. Furthermore, the student should know all demonstrated mechatronic components such as actuators, sensors or regulators and he should understand their function and in addition he should be able to assess their behaviour, so that they are prepared for combined interrogations, or “the students are in a position to build up models of linear single-variable-systems, to analyse them and to characterize their behaviour in systems; on the other hand they should be able to construct simplified control circuits by using*

standardized methods concerning the criterions solidity and performance; furthermore they should be in a position to categorize continuative methods like the non-linear-control-technique or multivariable systems; besides they should know how to construct continuous control systems by using discrete components and they should understand the occurring effects“ (e.g. aliasing).

A criterial analysis of these descriptions leads to the following view:

- Knowledge: The student should know furthermore all demonstrated mechatronic components such as actuators, sensors and controllers.
- Understanding: Furthermore, the student should know all demonstrated mechatronic components such as actuators, sensors or controllers and he should understand their function; he should be able to construct controllers by using discrete components and to understand the occurring effects (e.g. aliasing) Instrumental competencies: Besides, the student should be informed about all already demonstrated mechatronic components including actuators, sensors or controllers and he should understand their function and furthermore he should be in a position to evaluate their behaviour in order to be also prepared for synthesis-interrogations; he should be able to build up models of mechatronical systems and also of their components and to transform them both into mathematical equations and into block diagrams; in addition, he should be in a position to find out results concerning the static and dynamic behaviour of mechatronical systems by using the simulation tool MATLAB and to interpret them; furthermore, he should be able to build up models of linear single-variable-systems, to analyze them and to characterize their system-behaviour; also he should know how to build simplified control circuits by using standard methods regarding criterions such as solidity and performance; in addition, he should be able to categorize continuative methods such as non-linear regulation-techniques or multivariable systems and he should know how to build up continuous-time-controllers by using discrete components. Communicative competencies: they are not defined

Hereby, it is remarkable that on the one hand the aspect of instrumental competencies is accentuated in a significant way, but on the other systematic competencies are not emphasized in any way. In the category knowledge there are not many definitions. One explanation for this fact might be the circumstance that for each module there is only one description of its content.

Certainly these module-definitions cannot be exemplarily observed for other regulations existing inside or outside the respective university. In order to get more information about the circumstances, a detailed survey should be performed. Nevertheless this method of approach (in an informal comparison to other similar documents) underlines the supposition, that the basic idea of the QDH has not been realized so far, which is to integrate the cohesive aspects of knowledge, understanding, application, relativization and transfer into study plans. The question of possible reasons leads to several answers: this might be caused by a lack of knowledge, by a deficiency in understanding or by the insufficient acceptance of the demand of competencies, by deficits of understanding of the QDH, by the lack of willingness to

change something or by a non-precise instructional basic idea concerning the transfer of competencies in the doctrines of tertiary institutions and also the methods of verifying them. In this context it is impossible to find already proven conclusions. As far as the view of institutions of higher education is concerned, there are many arguments for the one, which was mentioned at last.

6 Instructional realization of the competencies-approach

Similar to the one occurring in the area of tertiary education also in the fields of schools a realignment of education-perspectives was performed regarding the competence-demand, more than one decade ago. The main reasons for this restructuring-process at schools - providing general education – were the chastening German results of the early OECD studies (TIMS, PISA) and the implementation of education-standards; as far as vocational schools are concerned, this was the orientation to the concept of professional competence, which was defined by the KMK in 1991. The concurrent process of implementation has continued up to nowadays. The few already evaluated empirical findings seem to be signified by various difficulties (have a look at e.g. Clement, 2002, Dilger 2011, Tenberg 2011). These are confirmed having regard to the practise at schools, because especially these have been for a longer period more determined by "hidden curricula" than by the official ones. However, since this change of these paradigms there have been many efforts concerning the education of teachers; one is at the one hand to lead a new generation of teachers to the transfer of expertise and on the other hand to qualify in this context the already active teachers. Both universities, clerkships and in addition the further education of teachers dealt with the subject of the demands of the competencies-orientation at an early point of time.

At this juncture one could remark a significant difference between the implementation of the demand of competencies in the area of schools or in the fields of tertiary institutions, because lecturers in higher education normally do not receive a formal teaching qualification during the period of their professional development process. Their instructional manner of acting might be traced back to their own doctrine-experiences when they were students; in most of the cases it is something like a result of the way of teaching of their former lecturers or of the one of their scientific "parents". Advanced trainings created for young professors are rarely performed and often they seldom include significant instructional subjects. As a result of the traditional dominance of the research towards the doctrine, these subjects have always been observed to be within the bounds of possibility. The history of the principals of teaching at institutions of higher education can be in most cases restricted to pedagogical contexts. Up to nowadays it has rarely been represented by professors at universities. For this reason it would be astonishing, when the instructional concretization – firstly performed by the competence-orientation in the area of German universities - would have been recognized by the majority of lecturers in higher education, by realizing it systematically in different disciplines. Comprehensively developed and extensively communicated informations about it, as for example the „expert report regarding the competence-orientation within studies and apprenticeship » of the HRK (Schaper, 2012), underline this estimation, because with them basic informations are described, which should have been spread in the meantime. In addition

statements concerning the transfer of competencies and also their check-up are formulated in such a general manner, that they are valid for all and therefore for hardly any specialist discipline.

Within a Delphi-study in 2009 - performed by 34 experts of Germany and of Switzerland - it was mutually determined, that „in the now existing teaching stuff of universities there are hardly any ideas, in what manner it would be possible to realize a competencies-orientated doctrine and examination“ (Firat et al., 114). In addition, it was criticized that „the conceptions of competence-orientated examinations are not known by the majority of the universities‘ lecturers. Furthermore, conventional and standardized schemata of examinations would be used up to nowadays. It was especially criticized that the chances concerning the off-center of competencies and students have not been used yet neither in examinations nor in the teaching (ebd. 115). In order to change this, a qualification in university-didactics of the teaching stuff is requested, which should qualify them not only for a competencies-orientated doctrine and examination on the one hand, but on the other hand their tradition-orientated understanding of their own role should be enhanced into the one of a learning-consultant (ebd).

In this context it is supposable that one or another teacher of an institution of higher education has already reacted and that he changed for this reason his methodological activities in consideration of the claim of competencies; in addition, he perhaps modified his way of teaching or perhaps he even reversed it; these facts might be supposed, but they won't be enough regarding the complexity of that kind of challenge. In order to put something concretely into motion in this context, university departments would be forced to perform an evaluation concerning the situation in context of their traditional doctrine, to find out, whether or to what extent it is competencies-orientated; so appropriate courses of instruction might be determined and organized. The fact, that this has been a scarce exception up to nowadays, has foreseeable reasons, which might be accentuated along the 4 typical basic aspects concerning the organisational transition; these are the questions concerning (1) the expertise, (2) the willing, (3) the ought and (4) the allowance:

1. Lack of expertise: Both for the respective equilibration of the doctrine and for its further development an instructional expertise will be indispensable, of which lecturers in higher education dispose only in exceptional cases.
2. Lack of motivation concerning innovation: „No gain – no change“ it is told us by the proverb, so „why should we change anything, when we are satisfied with the already existing?“.
3. Diffuse and non-binding requests and demand: the claims existing at institutions of higher education and which are resulting from the Bologna-reform are only accentuated – if at all – in the generation and accreditation of study paths. Whether or in what kind of way it will influence the doctrine, has not been proven yet.
4. Uncertainty regarding the legitimation: although any kind of competencies are expatiated by actual study-regulations, there is a certain competencies-right, which was fixed in the EQF and also in the QDH. For university teachers this means a judicial uncertainty, to what

extent their self-initiated competence-orientation is still within the framework of the legislation or at which point of time this one will be leaved by them. Concerning the constructive realization of these desiderata, a framework might be outlined in order to reach an ameliorated implementation regarding the transfer of competencies at German institutions of higher education.

Regarding 1: In the specialist disciplines specific instructional concepts should be developed, which assimilate the basic idea of this approach in a disciplinary manner. Both for the economical orientation and for the science-orientated professional perspective, which are placed next to each other in the different courses, self-contained approaches including curricula, concepts concerning placements and diagnostics should be developed and they should be proven in addition. The disciplines of institutions of higher education should create an explicit teaching methodology and they should put it at the place of their implicit discipline-methodology.

Regarding 2: scientists might be preferably motivated by using sustainable findings. For this purpose a broadly conceived and methodically persuading research concerning contexts and effects of the competence-orientation at institutions of higher education would be much-needed.

Regarding 3: The up to now very impersonal claim regarding the transfer of competencies at institutions of higher education, should become obligatory by an insitutional takeover. This might be moderately performed by explicit study-regulations (which are already existing at several universities), but it might be also emphatically performed by an implementation concerning the claim of competencies regarding the evaluation of the doctrine.

Regarding 4: Especially institutions of higher education, which have not explicated the claim of competencies so far, should inform teachers in a binding manner, to what extent they have the permission to use the already existing regulations. This especially refers to the doctrine on the one hand, but in particular for the examinations on the other hand, because in this context the most important legal problems might be expected.

7 Discussion

Regarding the already outlined „framework for an ameliorated implementation of the competencies-transfer at German instiutions of higher education“ it is clearly visible, that there is still a great distance to the Bologna-vision. Considering the fact, that nowadays no one of the herein intended measures has been captured in a substantial manner, it is also recognizable, that there is no other strategy in this context. Everyone does only „leave it at first“ and waits, what might happen. When the term „everyone“ is used in this context all superior institutions such as the BMBF, the science council or the HRK are concerned, but on the other hand also university departments themselves, which nobody would prevent to procure for themselves a high-value unique feature regarding their doctrine.

As far as research is concerned, the sole ascertainable and also comprehensive initiative has been the BMBF-agenda KoKoHS, in which modeling and measurements of competencies

regarding study paths of engineering disciplines or those of magistrum have been already tested. As hereby diagnostic methods are explicitly determined, which are suited to produce in immense quantities high-valid and also high-reliable data, in most of the cases the development of exercises is performed without any use of complete instructional cycles, including the aimed knowledge, dispositions and abilities, the way of learning and their examination. To work in this context – regarding university-didactics - on a basic level (and for this reason in an authentic manner), would have required a progress between 3 and 5 years – and – in case of an appropriate extent and variety – a multiple of the already used development funds would have been necessary. Therefore in the field of institutions of higher education the measurement of competencies has been proven, in which a sustainable and disciplinarily differentiated instructional analysis of the competence-right will not have been realized until the start of this program. The results will have – as it is previewable – only negligible effects on the practice of the doctrine of institutions of higher education.

When we would discuss about the competence-right with active university lecturers, we might get answers being part of the whole spectrum, which might be possible in this context: Some of them do not know the competence-approach at all and others have other ideas of it and not those, which would be correct. Those, who are in a position to classify it approximately might be divided into those, who are interpreting it as something like a marginal aspect and those, who are of the opinion, that it is important but that it could be hardly realized and those who think that it would be something trivial, because it would have always been a part of the university doctrine and those, who distance themselves from it, because it is estimated by them as a high-level and non-dischargeable demand. In the final analysis it is a minority, which is prepared to engage themselves in the competence-conception to an extent, that the results might be innovative cycles of the description of competencies, the transfer of competencies and also their verification. When you ask them, why they are doing it, you only receive in rare cases the answer, that this would be in the sense of the Bologna-reform; on the contrary these are almost university lecturers, which are convinced, that it would be a chance for the improvement of their doctrine, but also an opportunity for a professional development.

Therefore - regarding this subject – it might be proven that our universities are far away from a change of their old teacher-traditions or patterns – and this despite the stringency of the Bologna-process, despite their autonomization and despite the increasing application of regulation genes being part of economical education-regulation-instruments. Irrespective of the question, whether the competence-approach might been perpetuated in this context, it becomes apparent, that the universities' doctrine has been performed in an informal, sectoral, individualized and non-systematic manner in the 21st century. This is really embarrassing regarding our tertiary sector of education and its significance for the society as a whole, especially as far as the mega-trends of the technical-productive change are confirmed and in addition the one of the globalization and the demographic change. Whether and at what point of time the bologna-reform will lead us to a competence-orientated doctrine at institutions of higher education, has not been previewable up to nowadays. However, it is certain, that for this purpose, a more intensive and more differentiated discussion concerning the universities' doctrine would be necessary. The efforts of some of the universities regarding the establishment of instructional features, which might be observed at present, are nothing

else than a symptom of an existing interest or a noticed necessity. Also an extensive advanced-training-initiative in university-didactics, which was proposed in a statement of the CHE for the realization of the Bologna-process (Firat et al., 118) seems to be too concise, because for this purpose there has been any kind of university-didactics up to the present, which might be in a position to deal with it on a scientific basis. This means on the one hand, that university-didactics should be exceeded at all universities by explorative professorships, but on the other hand it would mean, that the specialist disciplines should be forced to deal with this main topic in a more intensive way; this should be done on the same high-scientific level as the one of their contents.

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