

The Situation of Post-Graduate Formation in Germany and New Tasks for Higher Education Centers in it

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<Abstract>

The German university system experiences a high impact for change. The Bologna-Process fostering a European knowledge and economic area by setting up a standardization process for a European wide academic system meets a German University system in which reform processes are overdue since the introduction of German Mass Universities in the 1970ies. Humboldt's paradigm of "freedom and unity of research and teaching" is still very high regarded amongst German academic members. But increasing numbers of students with constant teaching capacities alongside lack basic conditions for careful monitoring of student's academic development. Universities missions for an academic formation have shifted from a research career oriented goal to a scientific formation for a future non-academic employment goal. Both processes influence discourses regarding the reform of Post-Graduate formation. Two models can be distinguished, the research apprenticeship model based on an individual student-professors relationship and the network model supporting the idea of interdisciplinary research work within teams. Referring to the results of two German surveys on doctoral formation both models will be discussed in order to distinguish new tasks for Higher Education Centers in Post-Graduate formation. The Post-Graduate network project of the Center for Higher Education of Dortmund University will be presented as "best practice" example.

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1. Introduction

The topic of promoting Early Stage Researchers has gained attention from Higher Education Politics in Europe and in Germany in the last years. Trends towards globalization have changed the type of research organisation mainly in research fields that are closely linked to international markets like natural sciences and engineering. Research is organized within complex international and interdisciplinary clusters or project teams with third-party funding. The new structures demand a high grade of management and training for staff development besides the supervision of and formation for research work (Berning & Falk, 2005: 48). The number of doctoral graduations has increased constantly in Germany since the 1980ies leading to a higher demand for non-academic careers. More and more doctor graduates hold high qualification positions in non-academic institutions and enterprises. As a back-loop this shift has led to an impact on research orientation away from a mere intra-discipline theoretical-oriented focus towards more inter-disciplinary foci that combine theoretical-oriented and applied sciences-oriented perspectives. The quality of a German doctoral formation still seems to be appreciated abroad but the mentioned trends reveal weak points within this traditional model.

The European Ministers have addressed these tendencies by promoting doctoral programmes as part of the Bologna process. Early Stage Researchers formation is regarded to be crucial for the establishment of a European knowledge area. In Germany the confrontation of the traditional research apprenticeship model deriving from the University concept of Wilhelm von Humboldt with the modern more anglo-american network-like model of doctoral formation in Graduate Schools resulting from the actual influence of the Bologna process has led to an intensive discussion (e.g. Enders, 2005; Berning & Falk, 2005). Based on the results of two surveys on doctoral formation in Germany this article aims on analysing the advantages and disadvantages of both models in order to identify gaps and draw consequences for new tasks for Higher Education Centers in future doctoral formation as part of the Bologna study structure.

1.1 Post-Graduate study programs - the 3rd cycle within the Bologna study structure

On their conference held at Bologna, Italy in 1999 the European Ministers of Higher Education and Research committed to establishing a European Research and Higher Education Area (European Ministers of Education, 1999). The Bologna Process initiated in Italy is an ongoing standardization and quality survey process of the European University Systems. Mobility, employability, competitiveness and lifelong learning are important aspects in actual Bologna Commitments. By establishing comparable academic study programs and Degrees students are supposed to be able to study in all European countries and of course to be employed in enterprises acting within the European Market after Graduation. Actually all European countries deal with implementing the two-cycled Bachelor- and Master study structures. Meanwhile the European Bologna Workgroups are preparing the third Bologna Study Cycle being the doctoral formation (EUA, 2007).

Having obtained a mandate from the Bologna Ministers Conference in Bergen in 2005 the European University Association has published a report outlining a framework for doctoral programmes within the Bologna Process (EUA, 2007). The report distinguishes three clusters of issues that refer to different institutional levels. The basic level refers to the quality of the doctoral programmes themselves. Stressing the role of doctoral work as original research work the report outlines quality criteria for supervision, monitoring and assessment procedures as basic conditions for good research work progress. A need for additional training is stated in order to develop transferable skills that relate to future employability. The next level defines the role of higher education institutions to provide organisational structures. New embedded structures for doctoral programmes are to be developed providing links to Bachelor- and Master Programmes. They should take in consideration the special needs of different discipline cultures and they should provide a variety of access and admission possibilities and funding models. Options for internationalization and mobility should be sustained through adequate structures. The third level addresses the role of the state in means of public responsibility to assure

legal and regulatory frameworks and funding models for doctoral formation. The provision of frameworks to foster attractive research careers is a further issue on the third level.

1.2 Humboldt and Mass Universities - specific aspects of the German university system

The impact for change arising from the European Bologna Process meets a German University System that can be characterized by overdue reform processes. Since the introduction of Mass Universities in the 1970ies and the effects of the economic crisis in the following decades Wilhelm von Humboldt's University concept deriving from the Age of Enlightenment have been challenged (Bollenbeck & Wende, 2007).

Besides the impact of the actual reform processes coming from the Bologna process paradigms arising from the German University history still experience a high value amongst academic members. When founding the Berlin University Humboldt's interest was to keep out the influence of the German State whose main interest was to gain a formation system for their civil employees. Thus the founder of the Berlin University established the binary or dual university system based on the idea of "academic freedom" which means first of all freedom from influences coming from outside of the system (Vinnai, 2005). In contrast to Humboldt's binary concept unitary university systems like the one of the United States of America or of the United Kingdom include the most part of professional formation fostering the formation of schools alongside vocational study programmes instead of the formation of disciplines (Kirstein, 1999).

With the foundation of 25 new Universities in Germany the percentage of students per birth year increased from 5% to 35% nowadays (Asholt, 2007: 126). In consequence high-level professional formation was partly reintegrated into the University System by founding the Universities of Applied Sciences which responded to the increasing demand for scientific based formation for future non-academic employment in addition to the traditional academic research careers. Due to the economic crisis in the following decades the university budgets decreased continuously. Based on an empirical study over thirty years Plümper and Schneider state that

there is a significant relation between the “over-booking” of “cheap” study places by doubling the student numbers in humanities, cultural sciences and languages with unchanged teaching capacities alongside and the increasing unemployment rates over all Federal Countries in Germany. Plümper and Schneider assume that the Federal Countries Ministries of Education had an interest to encourage young people to study in order to lower the unemployment rates taking into account a considerable decrease in the quality of study conditions (Plümper & Schneider, 2007).

Whereas the mentioned trends have led to an attitude of resignation or resistance of academic members against all kinds of reorganization or reform the Bologna Process has brought fluctuation into this status. On one hand Higher Education Politics used the impact coming from the European Ministers to implement more economic-oriented models for university managements. (Dainat, 2007: 91). On the other hand the necessity of study reforms evoked discussions about values and paradigms of an academic formation.

1.3 The traditional research apprenticeship model and the new network model as conflicting concepts

Discussions on the necessity of a doctorals formation reform distinguish and often oppose two models. The traditional model is mentioned as “Zunftmodell” (Enders, 2005, 40) referring to the organization of medieval handcraft persons called “Zunft” or “Gilde” or as “Meister-Schüler-Modell” (Berning & Falk, 50) which can be translated as master-scholar-model stressing more the relationship of the concerned persons. The term of research apprenticeship model will be used in this article because it expresses both aspects, the organization and the relationship and it includes the transfer into an academic context. The new network model is influenced by the concepts of Graduate Schools coming from anglo-american countries. This term stresses the organization of the supervisors’ relationship being in responsibility of several persons or a team. Both models will be described in detail in this chapter in order to identify main characteristics.

The so-called “humanistisches Bildungsideal” implicit in Wilhelm from

Humboldt's University concept is based on two central concepts, the "autonomous individual" and the "world citizenship". In the view of Humboldt and the Enlighteners scientific formation is supposed to be the formation of an autonomous thinking person with interest in human conditions questions. The relevant organization of relationship traces back to the medieval apprenticeship model for the formation of handicraft persons organized in guilds or so-called "Zünfte" with three phases of formation, the apprenticeship, the journeymanship and the mastership. Masters were fully responsible for the apprentices both for their personal and their professional development. As Journeymen were supposed to move in order to learn from different masters and guilds the exchange of knowledge through the mobility of journeymen was part of the apprenticeship concept. The terms of "Doctor father" or "Doctor mother" express this individual type of relationship between supervisor and doctorand¹⁾. Research habituation and research ethics of the supervisor like research paradigms or discipline culture are important aspects of this concept. Klaus Landfried, former president of the German's Universities Rectors Conference states that beyond a good technical infrastructure the qualities of a German University formation still consist in the "deepness" of issues going beyond the surfaces, a careful methodical formation and a critical researchers attitude (Metz-Göckel, 2004). It seems that the research apprenticeship model is still an important paradigm particularly for the doctoral phase. Though the aspects of integration of the doctorand as apprentice in a research community and of a careful individual scientific formation with the aspect of mobility have lost their basic conditions with the mentioned tendencies in German Universities.

The new trend in doctoral formation is a more network-like model that stresses the support by an interdisciplinary or international project team or a research institution rather than by a single person. The core concept is to provide a supervision structure for a group of doctorands with similar issues within a research cluster. Different types of network models exist in German doctoral formation. Low structured "doctoral study programmes" are offered by the Universities, the more structured so-called "Graduiertenkollegs"²⁾ are offered by faculties or institutions.

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Most doctorand members hold grants for a limited time mainly supported by the German Research Association (DFG). Very high structured types are the “International Max-Planck-Research Schools” or the “International Doctoral Programmes” financed either by the German Research Association (DFG) or by the German Academic Exchange Organization (DAAD). Doctorand members have a job or a grant. The most recent trends are newly established “Graduate Schools” which have the opportunity to apply for funding from the “Excellenz-Initiative” a funding project of the German State Ministry started in 2006. Lower structured models like “doctoral studies” consist mainly in a student status by enrolment as doctoral student and rely more on self-organization of the doctorands and peer supervision than on defined responsibilities for supervision by senior researchers or research teams like for example “Graduate Schools”. Additional workshops are optional rather than fixed obligatory study programmes. Access and admission is often informal whereas high structured types have high selective admission processes. Network-like models seem to support more interdisciplinary or international oriented clusters than single area or discipline issues. Peer feedback and learning from peers that are only some steps ahead the own progression are important aspects of this type of doctoral formation. But high structured types like “Graduate Schools” follow rigid research programmes in hierarchical organized projects or clusters due to their expensive third-party funding which concedes less freedom in choice and development for the doctorands own works. There are hints that critical thinking and a critical researchers attitude are not appreciated in this type of research environment as states a report of the German Independent University Magazine on doctorands of International Max-Planck-Research Schools (duz, 2007).

2. A detailed view on doctoral formation - results of two surveys on doctorates in Germany

2.1 Foci of the two surveys

In 2004 two surveys were accomplished that allow a more detailed view on the diverse situation of doctorands in Germany. One of the German

doctorands Associations called THESIS³⁾ conducted a questionnaire with 10.000 doctorands. The THESIS survey was interested in revealing the situation of the doctorands from their own perspective (duz SPECIAL, 2004; Briede, Gerhardt & Mues, 2005). The Bavarian State Institute for Higher Education Research (IHF⁴⁾) included 3.000 persons, professors and doctorands in their questionnaire focusing more on the institutional support and organization of doctoral formation. Both surveys reveal similar trends for specific aspects differentiated over the main discipline groups (Berning & Falk, 2006).

2.2 Trends in main discipline groups

Both surveys split their results into main discipline groups differentiating humanities / cultural sciences / languages, law, economics, social sciences, engineering and natural sciences. Medicine doctorands were not included in both surveys because of their special formation procedure. Main results of both surveys are summarized below. Most doctorands have a solid intrinsic motivation to pursue their research work. Nevertheless 3/4 of them hope that their scientific work will have a crucial impact on their further career. Over all disciplines more than half of all doctorands had a traditional supervising relationship. Most of them were law doctorands followed by engineering, social sciences and humanities / cultural sciences doctorands. About 40% of natural sciences and economics doctorands were integrated in some type of lower structured Doctoral Studies.

Only about 10% of economics and humanities / cultural sciences doctorands were integrated in so-called “Graduiertenkollegs” or belonged to high structured “Graduate Schools”, “International Programmes” or to “International Max-Planck-Research Schools”. There are a variety of funding types for doctoral formation. German doctorands hold half part academic jobs legally dedicated for doctorands or full time academic jobs. They can apply for different grant models from different institutions or foundations. Partly they hold the status of so-called “extern doctorands” when working as employees in non-academic institutions or enterprises or as freelancers. Whereas in natural sciences, in engineering and in eco-

nomics most of the doctorands had a full time or part time job at their university or their research institute only 1/3 or less in humanities / cultural sciences did so. About 1/3 of the doctorands in humanities / cultural sciences held a grant but 1/3 had no funding. The integration in research projects of the supervisor or in scientific communities seems to be a crucial aspect for doctoral formation. Natural sciences doctorands ranked the integration in the research of the supervisor and the support for shared publications on a middle scale range being the best rate over all disciplines. The worst rate came from law doctorands followed by humanities / cultural sciences doctorands. The ranking for the best support for own publications and for conferences participation and papers submission came from engineering doctorands followed by natural sciences doctorands. Again the law doctorands seem to be the less supported followed by humanities / cultural sciences. Less than 1/4 over all interviewed doctorands had taken part in conferences in other countries. More than 1/4 of all doctorands had experienced delays or breaks up to nine month in their doctoral works. Reasons stated by doctorands was work overload with tasks besides their research work or organizational problems like lacking access to laboratories or literature. More than 15% mentioned problems to assure their daily income. Referring to additional training the best ranking for teaching preparation came from the economics doctorands, the best ranking for research management preparation from the engineering doctorands. Humanities and cultural sciences doctorands feel that they have the worse preparation for teaching and law doctorands for research management preparation.

It can be stated that there are different conditions for different discipline groups. Natural sciences, engineering and economics doctorands seem to have better conditions for research integration, additional training for future research work and teaching than law and humanities / cultural sciences / languages with social sciences in the middle. Law doctorands obviously have the worst conditions for research integration and additional training whereas humanities / cultural sciences / languages doctorands have the worst conditions in funding with slightly better conditions for research integration and additional training as law doctorands.

The trends underline the well known fact that natural science, engineering and economics faculties in Germany have better structures and resources for research and teaching than humanities / cultural sciences / languages and thus can provide faculty supported structure for doctoral formation. This corresponds to the study of Plümper and Schneider mentioned above. The selection results for the funding programme for “Graduate Schools” within the “Excellenz-Initiative” started by the German State Ministry in 2006 show the same trend. From 18 selected applications for funding in the first selection phase only two “Graduate School” projects belong to the discipline group of humanities / cultural sciences / languages (Wissenschaftsrat, 2007). It is supposed that the high structured model of doctoral formation like “Graduate Schools” will remain a limited model for a small research elite within well-funded research clusters with international economic-driven orientation.

As Enders states it is most surprising that regardless bad institutional conditions for doctoral formation Germany has the highest rate of doctoral graduation in the world. He assumes that there are two crucial aspects one being the informal and open admission procedure leaving the responsibility for admission to the “doctor father” or “doctor mother” and a variety of funding types, the other being the value of a doctoral degree in the employment market (Enders, 2005, p. 41).

2.3 Quality aspects for doctoral formation programmes

Summarising the findings and main paradigms of both models we assume that there is a broad variety of different models and types of doctoral formation depending on the discipline field, the funding situation, the research context and the University context. Nevertheless there seem to be two different aspects that are crucial for the quality of doctoral formation. The first aspect is the assurance of basic conditions for Early Stage Researchers. The second aspect refers to the assurance of research quality through integration in research work and scientific communities.

The first aspect belongs to the responsibility of universities and of Higher Education Policy. In German Universities the traditional research apprenticeship model prevails in most disciplines. The results of the

mentioned surveys show that doctoral formation is still regarded to be the task of single professors. There is nearly no institutional support or additional training provided from faculties or universities. Only a small part of doctoral formation is organized in “doctoral programmes”, so-called “Graduiertenkollegs” or “International Graduate Schools”. They offer a multi-personal supervision structure partly self-organized with peers and partly in responsibility of senior researchers. They vary in access and admission procedures, in funding and in the strictness of included study programmes or trainings. Only some third-party funded international research clusters have established a high structured type of “Graduate Schools” that provide good organizational conditions for doctoral formation with strict study programmes. As the selection process of the so-called “Exzellenz-Initiative” shows they relate mainly to international economic-driven topics like Biotechnology, Computational Engineering, Optics and Phototronics or Neuroscience (Wissenschaftsrat, 2007). But this complex high structured type of research organization obviously reduces the freedom of the doctorants research work. There are hints that a critical researchers attitude is not appreciated within this type of research contexts. Access and admission are highly selective. So Graduate Schools seem to conflict with Humboldt’s idea of supporting an individual formation through original research work.

The second aspect is the assurance of research quality by defining, discussing and setting research ethics and standards like published in the research guidelines of the German Research Association (DFG, 2007). These aspects are in responsibility of the individual researchers themselves. Early Stage Researchers only can learn them by habituation through participation in research work and scientific communities. Even given the fact that research ethics and standards have a high value amongst German university professors there is a lack of basic conditions needed for the integration and participation of Early Stage Researchers within respective research and scientific communities. This relates to the fact that the isolation of doctorands is an often mentioned problem that mostly concerns the group of so-called “extern doctorands” in the discipline group of humanities / cultural sciences / languages or in law. Be-

sides the lacking of basic conditions particularly for the mentioned “extern doctorands” and discipline groups of humanities / social and cultural sciences / languages the provision of network-like structures to support participation and integration in scientific communities in order to foster research habitualization as part of the professionalization process is a serious quality problem.

3. New Tasks for Higher Education Centers

3.1 Higher Education Centers in Germany

With the introduction of Mass Universities in the 1970ies and a vague of University foundations the newly employed academic assistants started an initiative for a Higher Education reform processes which resulted in a paradigmatic publication that reinterprets Humboldt’s concept of “unity of teaching and research” stressing theoretical aspects on self-dependent learning for Higher Education didactics and study reform processes (BAK, 1970, Huber, 2004). Several Centers for Higher Education and Higher Education service offices were founded in the following years. Important aspects of the Higher Education Centers concept were the interdisciplinary orientation and the integration of theoretical and applied research. Interdisciplinary-oriented research on Higher Education teaching and learning was supposed to be promoted by integrating professors from many different disciplines in the newly founded Centers and the integration of theory and practice by the integration of research and service offers. Theory and practice in Higher Education combined findings and training methods from different discipline fields like andragogy, sociology, psychology and economics particularly concepts for staff development, team and group support or communication theory deriving for example from management training methods or concepts of learning organizations. With the economic crisis and the cutback of University budgets in the following decades all Centers for Higher Education suffered a dramatic reduction of research and service resources.

In the 1990ies the establishment of New Media and eLearning brought new tasks. Media Centers and Higher Education offices tasks merged at

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several Universities. In the last years there is a trend for the merging of single service offices to networks offering services and training for an aggregation of universities like the Bavarian network or the Baden-Württemberg network. With the impact of the Bologna process the need for research expertise and services from Higher Education Centers related to study reform processes, staff development or eLearning issues is growing. Developing embedded structures for doctoral formation is one task within this process but with tight budgets Universities hesitate to assure additional research and service capacities. The Graduate Network project of the Dortmund Center for Higher Education can be seen as one “best-practice” example demonstrating how weak points within the German doctoral formation can be met.

3.2 The Graduate Network of HDZ Dortmund – a “best practice” example

In 2004 the Center of Higher Education (HDZ) at the Dortmund University conducted a survey on the situation of doctorands in the faculties for humanities, social and cultural sciences in Dortmund University in order to reveal condition problems and prepare a network support project. Two reasons to initiate the Dortmund survey were cited. The first reason being the fact that with the implementation of global budget systems for German Universities the rate of doctoral degrees per faculty per year will be a future performance parameter. The second reason being statistics of the years 1997 to 2003 that showed significant differences between numbers of students, of graduates and of doctoral graduates within different faculty groups. The percentage of doctoral graduations was much lower within the faculty group of humanities / social and cultural sciences than within the faculty group of engineering and natural sciences. One argument explaining this condition is the fact that from 815 academic jobs for doctorands only 22% belonged to the faculty group of humanities / cultural sciences. The other argument is that the faculty group of humanities / social and cultural sciences mainly perform the formation of teachers. So research projects that offer jobs for doctorands are the exception in contrast to the research organization type within the engi-

neering and natural sciences faculties. In consequence the survey mandated by the Rectorate of the University was conducted in order to reveal weak points within the doctoral formation in humanities / social and cultural sciences and clarify needs for tasks of a Graduate Center.

The questionnaires design and findings relate closely to the results of the above mentioned surveys from THESIS and the IHF. The questionnaire including 112 persons, doctorands and professors referred to the doctorands point of view on their situation like motivation, funding, supervision quality and need for further qualification training and advice and the supervisors point of view like the type of selection and admission process, their understanding of supervision tasks, form of supervision and time requested and problems of doctorands and needs for further qualification. Both doctorands and supervisors stated the need for additional qualification and reflection. Issues mentioned for further qualification were workshops on research methods, on scientific writing skills or advices on individual special topics and the provision of individual coaching, supervision and career planning and advising. Half of the supervisors stated that they were interested in participating in a Graduate Center to provide better support for the faculty doctorands, to share resources for supervision and additional training with colleagues and to foster synergy effects (Selent, 2004).

In July 2004 the Center for Higher Education in Dortmund (HDZ) started a graduate network project called "Graduierten-Netzwerk Fachbereiche / Fakultäten 12 - 16" with a kick-off workshop aiming on network and group building and on revealing concrete issues for additional training provision. The project explicitly addresses so-called "extern doctorands" from the humanities / cultural and social sciences faculties. Regularly so-called "network market places" are organized by the Center for Higher Education in Dortmund where doctorands can exchange with peers about all relevant issues around their thesis work. They can participate to find self-organized peer groups on research clusters or find Graduate groups organized by supervisors. They get information on the additional workshop programme organized by the Center for Higher Education Dortmund (HDZ) covering more general areas like research methods and theory or

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funding and more individual areas like time and knowledge management, individual advising and career planning and they can suggest new issues for further training (loo-

kup:<http://www.graduiertennetzwerk.uni-ortmund.de/de/infos.html>).

4. Conclusions and future directions for the German doctoral formation

As third cycle of the Bologna study structure doctoral formation is regarded to be an important transfer phase between a students and a researchers state. The Bologna workgroup on doctoral programmes mandated from the European Ministers of Education has outlined a framework that addresses three clusters of issues referring to different institutional levels. The basic level stresses the core task of doctoral work as original research work and outlines quality criteria for supervision, monitoring and assessment procedures, the provision of basic conditions like funding or infrastructure access and the need for additional training to develop transferable skills. The next level defines the role of Universities to provide organizational structure and to develop embedded structures for doctoral programmes with links to Bachelor- and Master programmes. The third level addresses to the responsibility of the state to assure legal and regulatory framework and funding models for doctoral formation.

The traditional German doctoral formation model termed “research apprenticeship model” in this article derives from the University concept of Wilhelm von Humboldt. Its strong points are the implicit paradigms of individual doctoral formation through original autonomous research work, the independence from outside influence through research ethics and standards and their habitualization by participating in scientific communities. Admission procedures are informal and in responsibility of the supervisors. Extern doctorands that are admitted in this type of doctoral formation provide an important exchange link between society or work environment and research. It seems that the appreciated research quality of the German doctoral works relates to the mentioned aspects. But the dramatic changes of research organization, of study conditions and of an

academic formation mission since the introduction of Mass Universities have challenged the traditional research apprenticeship model. Network-oriented models like the anglo-american type of Graduate Schools have been established in the context of international interdisciplinary third-party funded research clusters. They afford a multi-personal supervision, additional training and a strict study programme. Doctorands acquire additional competences and are able to accomplish their thesis in the foreseen time but high structured research organization and management reduces their options for individual development as researchers. There are hints that a critical attitude is not appreciated in this type of research context.

There is a broad variety of doctoral formation patterns between the two mentioned models as the “outer edges of a line” differing in status, in funding types, in institutional or scientific integration, in supervising forms or in optional or facultative additional training programmes. This variety responds partly to different needs in different disciplines and different research contexts. Nevertheless the two surveys conducted on the situation of doctorals in Germany and in Bavaria show some problematic points. Particularly in the discipline of law and the discipline group of humanities / social and cultural sciences / languages a considerable part of doctorands lack basic conditions like funding and access to scientific communities. The provision of supervising, monitoring and assessment is reduced to rare contacts to a single supervisor.

The “best-practice” example of the Graduate Network in Humanities / social and cultural sciences at Dortmund University shows that Centers of Higher Education have the expertise to organize low structured networks fitting particularly the needs of this part of doctorands. They can support self-organization of supervisors and doctorands and provide additional training within an optional workshop programme if their Universities are disposed to furnish the needed institutional and policy support.

Notes

- 1) In this article the term doctorand will be used for persons who write a thesis. The term refers to the fact that the doctoral formation in Germany is very diverse in funding, supervision, additional training or integration in an academic or research context. The only common attribute is to get the admission of a Professor as supervisor and the request to submit a Thesis work.
- 2) So-called “Graduiertenkollegs” or Research Training Groups are time-limited university graduate training programmes established at scientific centers in specific fields that can apply for funding from the German Research Association (DFG). They are proposed by faculty members and endorsed by their university. The evaluation and selection for funding is a peer review procedure.
- 3) As mentioned in 2.1 THESIS is the name of an interdisciplinary doctorands Association in Germany.
(lookup: <http://www.thesis.de/>, 2007.10.30.)
- 4) As mentioned in 2.1 IHF is the abbreviation for the Bavarian State Institute for Higher Education Research and Planning.
(Bayerisches Staatsinstitut für Hochschulforschung und Hochschulplanung, lookup: <http://www.ihf.bayern.de/>, 2007.10.30.)

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ドイツの大学院教育と高等教育センターの課題

マリアンヌ・メルクト

<要 旨>

ドイツの大学システムは大きな転換期を迎えている。今日では、いわゆる「ボローニャ・プロセス」によってヨーロッパの大学システムは標準化されつつあり、1970年代に高等教育が大衆化して以来、改革が遅れていたドイツの大学も大きな影響を受けている。「学問の自由と研究・教授の統合」は今なおドイツの大学教員に強く支持されている。しかし、大学生数の増加する一方で教育環境は改善されず、学生の知的発達を促すための基礎条件の整備は十分とはいえなかった。知の共同体としての大学のミッションは、伝統的な研究者養成から、研究者以外の仕事に就く上で科学的素養を身につけることに変わりつつある。この相反する二つの目標はそれぞれ大学院教育のあり方に影響を与えている。前者は学生と教授の個人的関係に基づく徒弟制モデルであり、後者はチームワークによって学際的な研究を可能にするネットワークモデルである。本稿では大学院博士課程に関する二つの全国調査結果を通してこの2つのモデルの有効性を検討し、ドイツの大学に設置されている高等教育センターが大学院教育の改善にどのように取り組むべきかに言及する。その際、ドルトムント大学の高等教育センターの大学院ネットワークプロジェクトを「バスト・プラクティス」として紹介する。

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