

PhD Concept Paper



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PhD Concept Paper

Preface

The reform of education and namely of higher education in Georgia is an indispensable prerequisite for the development of a strong and modern state. The reform consists of many aspects, one of which is changing of the format of training of scientific personnel and introduction of PhD degree into the university education.

In March, 2004, with the support of the Center for Social Sciences (CSS, Tbilisi) and Open Society Institute (OSI, Budapest), work on the project, which envisages analyzing of the problems connected with introduction of Doctoral Studies and working out of the relevant recommendations, started. In the framework of the project, it was planned to work out a conceptual document – necessary stages for introduction of Doctoral Studies in Georgia, correlation between the existing and the new systems of academic degrees, peculiarities of the academic content of PhD educational programs, institutional bases for adopting three cycle system etc.

Five situational analyses (expert evaluations) of the PhD models, currently existing in the world, have been prepared in the course of the work.

The representatives of the leading higher educational establishments of Georgia partook of elaboration of the concept. Three round tables with participation of experts were held in the fall of 2004. A seminar was held in the framework of the project, during which professor Barry Parsons (New Zealand) presented the Doctoral Program models of English speaking countries (See appendix II)

The recommendations, which are worth considering for the successful implementation of Doctoral Programs in Georgia, have been worked out as a result of work of the experts group.

I would like to thank all the participants of the project.

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“PhD Concept Paper”

PhD Concept Paper

The Concept

- **Goals of PhD Programs**

The main goal of Doctoral Programs is to train academic leaders in accordance with the relative fields of professional activity, who will be able to create new knowledge, critically analyze the accumulated ideas and take responsibility for transformation and dissemination of this information by means of publication, tuition and implementation.

The university graduate with a PhD degree must be able to fulfill three main aspects pertaining to knowledge and skills:

1. Generation of knowledge and skills;
2. Conservation of knowledge and skills;
3. Transformation of knowledge and skills¹

- **Admission for Doctoral Programs**

Doctors are future leaders and top-notch professionals, thus only the best students must be admitted for Doctoral Programs.

An indispensable prerequisite for admission for Doctorate is possession of a Master's degree or an academic degree equal with it. An applicant for Doctorate must have high academic results.

A desirable precondition for admission is:

First version – existence of scientific theme and preliminary consent of a probable scientific supervisor. This does not mean definition of the exact title of the thesis topic, but an applicant for Doctoral Program must clearly present his sphere of interests. Scientific supervisor must corroborate the possibility of research in this field.

Second version – faculty/department/chair announces topics of research and offers them to PhD students. In any case, a PhD student must be provided with necessary conditions for research as well as a qualified scientific supervisor.

- **Academic Content of Doctoral Programs**

The main characteristic feature of the new type of Doctorate is existence of a teaching component.

Doctoral Studies are viewed as not merely a scientific research, but as scientific-teaching process.

Teaching process must ensure not only deepening of knowledge, but also its expansion.

Below are provided those main principles, which must, by all means, be adhered to while elaborating Doctoral Programs.

¹ Preparing Stewards of the Discipline. Carnegie Initiative on the Doctorate.

What shall be taught?

Subjects of discipline
Modern methods of research
High school pedagogy
Communication and management

How it shall be taught?

Individual teaching programs
Workshops
Interdisciplinary approach

• Institutional Preconditions for Adopting PhD System

Legislative preconditions for adopting PhD system are regulated by the “Law on Higher Education”. Whatever concerns institutional preconditions, here lots of things are to be streamlined yet.

Doctoral Programs are mainly carried out in the research universities. The “aspiranturas” currently existing in the Academy of Sciences and the universities represent parallel structures. They have to be either brought closer/merged or the principles of joint work should be devised.

A typical provision for the Dissertation Board, which will ease control of the quality of Doctoral Programs, must be worked out. Ensuring quality of Doctoral Programs means program accreditation. At the initial stage (and probably in future, due to the smallness of the country) participation of foreign experts in the evaluation process is inevitable.

Relative academic and administrative structures, which shall ensure necessary conditions for implementation of Doctoral Programs, must be created within the universities.

• Financing of Doctoral Studies

In accordance with the newly adopted law, the new rule for financing Master Studies and Doctorate Studies should be worked out by 2007. Before then, these two cycles of higher education will be financed at the expense of the universities’ scientific grants.

It is evident, that the main financier of Doctorate Programs in Georgia in near future will be the state, although the universities must look for additional sources of financing Doctorate Programs right away, otherwise closure of many programs is quite probable.

During pricing of the new Doctorate Programs, difference among fields must be taken into account. We have to also heed the international experience, which shows, that PhD programs cost approximately three times more, than Bachelor Study Programs.

PhD Concept Paper

Explanatory Note

1. Preface

Education plays enormous role in the well being of society as well as in formation of democratic mentality. Scientific breakthroughs, technological changes, development of culture and art in the modern world are unthinkable without existence of perfect education system.

Well-being of a state is directly dependant on responsible, educated citizens, who clearly understand importance of their professional work for their country. Higher education has a very important function for ensuring better future and dynamic development of a state.

Without having a viable and sustainable higher education system, Georgia can not occupy a respectful place in the modern world. Today, higher education system in Georgia faces fundamental reform.

On 1 March 2002, Georgian parliament passed a decree “On the Main Directions of Development of Higher Education” and on 21 December 2004, the law “On Higher Education” was adopted.

Both of these documents define the place of Georgian higher education system in the European area:

“globalizaciis pirobebSi umaRlesi ganaTleba saerTasorisო xasiaTs izens. aucilebelia saqarTvelos umaRlesi ganaTlebis sistemis saerTo evropuli ganaTlebis sistemis sivrcეSi moqceva saerTasorisო organizaciebTan da wamyvan universitetebTan partnio-ruli TanamSromlobis safuZvelze”².

In June 1999, education ministers of 29 European countries signed the Bologna Declaration, which aims at creating European High Education Area - EHEA - by 2010. Currently, 33 European countries are members of the Bologna process. Georgia is among the challengers and, presumably, it will join the process in May 2005.

The main emphasis of the Bologna Declaration is put on introduction of the system of compatible and easily understandable academic degrees throughout Europe: establishment of two cycles of higher education – Bachelor Studies and Master Studies - is meant. It is clear, that the Bologna process cannot bypass discussion of the issue of Doctorate Studies.

In January 2000, by the proposal of the European Commission, it was, in principle, decided to create European Research and Innovation Area – ERIA, the aim of which is to ensure conditions for development of knowledge-based economy in Europe.

It is namely these Doctorate Programs, which ensure direct link between the two European “Areas”: knowledge based economy cannot be created without relevantly trained high-class specialists.

² საქართველოს პარლამენტის დადგენილება “საქართველოში უმაღლესი განათლების განვითარების ძირითადი მიმართულებების შესახებ”

The necessity for implementing Doctorate Studies is more than vivid for the countries partaking of the Bologna process: at the meeting held in Berlin, in 2003, the ministers responsible for higher education of 33 European countries declared, that:

“ზონსციოუს-----

“acnobiereben ra, umaRlesi ganaTlebis evropul sivrcesa da kvlevis evropul sivrces Soris ufro axlo kavSirebis xelSewyobis aucileblobas, da mTel evropaSi kvlevebis rogorc umaRlesi ganaTlebis ganuyofeli nawilis mniSvnelobas, ministrebi saWirod miiCneven, rom boloniis procesSi amJamad arsebuli umaRlesi ganaTlebis ori ZiriTadi safexuris garda mesame safexurad Seitanon doqtoranturis done”.

Currently, work on refining the aims of Doctorate Studies is actively underway. UNESCO-CEPES project will serve as an example “Doctoral Degrees and Qualifications in the Contexts of the European Higher Education Area (EHEA) and the European Research and Innovation Area (ERIA).³

As we strive to become a respected member of the European family and join the European Higher Education Area, we have to immediately define the functions and importance of Doctorate Studies.

In the law “On Higher Education” Doctorate Studies are defined as:

“...The third-----

“...umaRlesi ganaTlebis mesame safexuri, saswavlo programebis da samecniero kvlevebis erToblioba, romelic miznad isaxavs samecniero kadris momzadebas da mTavrdeba doqtoris akademiuri xarisxis miniWebiT.”

Third level of higher education must practically be worked out anew. Necessary stages for implementation of Doctorate Studies, correlation between the old and the new systems of academic degrees, characteristics of the academic content of Doctorate educational programs and the institutional bases for adopting three cycle system must be defined.

It is utterly important to discuss the problems connected with implementation of Doctorate Studies in connection with the processes underway in Europe as well as to share in the global experience in the field.

2. The Systems of Academic (Scientific) Degrees

We can distinguish between the two main systems of academic degrees:

- The system used in English speaking countries (and now spreading very fast): Bachelor (B.A./B.Sc), Master (M.A./M.Sc.) and Doctor of Philosophy (PhD) – US, UK etc:

³ www.cepes.ro/hed/policy/doctorate.htm

- The traditional system of continental Europe: Specialist with a Diploma (Diplom), Candidate of Sciences (Promotion), Doctor of Sciences (Habilitation) – Germany, Eastern Europe, CIS.

The preconditions for being awarded academic titles and positions differ correspondingly: in Germany (till recently) and in the majority of Eastern European and CIS countries (even at present) it is necessary to have a Doctor of Sciences Degree (Associated professor's position – Candidate of Sciences degree) for acquiring professor's position; when in English speaking countries, this is determined by other academic indicators (number of publications, years of work, lecture courses, received grants etc).

It is noteworthy, that existence of such system of higher education cycles in English speaking countries is not provided for by any statute – it is the traditional model of higher education. On the contrary, in Germany and especially in Eastern European countries, the cycles of higher education, the awarded academic degrees, sometimes even the length of the programs and the number of necessary credits is strictly defined by the relevant normative documents (The main law on the higher education) The reason for such detail is explained away mainly by moving from the Continental system of academic degrees towards the “English-speaking” system.

One more characteristic feature of the higher education in English speaking countries is an absolute academic freedom and autonomy of the universities, which means, that each university decides of its own accord the rules of admitting students for different cycles of education (Doctorate Studies, among them), the length of the programs and the form of tuition/research work. Situation is similar in the continental Europe too. The tendency for growth of autonomy of the universities is noticeable in CIS countries, but in relation with “*aspirantura*” there exists a centralized control in the form of the so-called Certification Commissions (E.g. in Georgia – the Board of Academic Experts, in Russia – the Supreme Certification Commission”) (See below).

2.1. თქვენი თეზისი ოფიციურად როგორც (ადმინისტრაციული, ნეცესარული პრეცედენტები, ლენგუაჟი ოფიციური პროგრამის, ფორმის ოფიციური, დეფინიციის ოფიციური)⁴

USA

Doctorate Studies exist only in the universities. A necessary precondition for studying in the Doctorate, as a rule, is having an academic degree of a Master, but in quite many cases, Bachelors also have this right. Each university independently defines the rights for admission for Doctorate Studies, the Curriculum, number of credits etc. There does not exist a unified model. Traditionally, it is desirable, but not necessary, to have a number of publications. Control of the quality of PhD programs, as a rule, is exercised during the institutional accreditation of a higher educational establishment. Program accreditation is carried out by professional organizations only in certain fields, i.e. clinical psychology (For details, see appendix II).

⁴ Selection of the countries has been done according to the following principle: US, Western European countries, Eastern European countries, Baltic Republics, CIS.

The United Kingdom

Doctorate Studies exist only in the universities. A necessary precondition for studying in the Doctorate, as a rule, is possessing of an academic degree of a Master, albeit, in quite many cases this right is also enjoyed by Bachelors. The system of Great Britain, in principle, does not differ from that of the US, provided we do not take into account the length of Doctorate programs and the number of credits in separate fields (For details, see appendix II).

Germany

Doctorate Studies exist only within the universities. A necessary prerequisite for studying in the Doctorate is possessing of a diploma of higher education. Admission exams do not exist. A necessary precondition for admission is a supervisor's consent. The admission, or the so called compatibility exam (*Zulassungsprüfung*), is taken only if the applicant applies for Doctorate Studies of another faculty (I.e. A biologist applies for Doctorate Studies at the medical faculty). The length of Doctorate Studies is not defined precisely, but recently, tendency for setting stricter deadlines has been noticeable. Basically, a Doctorate student is given only three years to finish his work. Existence of publications is not a precondition for defense. The curriculum for Doctorate Programs, credits etc. do not exist. "Studying" in Doctorate traditionally, means scientific research. Recently, the so-called "*Graduierten-kolleg*" was established, wherein the successful Doctorate students are admitted, who are given a cycle of lectures not only in the main subjects, but also in general ones (I.e. rhetoric, presentation technique etc.). Till 2002, a necessary precondition for being awarded a professor's title in Germany, has been possession of Habilitation degree (Corresponds with our Doctor of Sciences.) This system induced many a young scientist to leave the country and go to USA for the purpose of independent work. To avert brain drain, two years ago they introduced the so-called "*Juniorprofessur*" – an institution of young professors, when successful young scientists, who possess only the first scientific degree (Promotion – corresponds to our Candidate of Sciences) are granted the right to occupy professor's position and independently carry out research together with their own working group⁵.

Hungary

The Doctorate Studies exist in the universities as well as in the research institutes of the Academy of Sciences. A precondition for studying in the Doctorate, as a rule, is a possession of Master's degree, or of an academic degree equal to it (a specialist with a diploma is meant.) The Curriculum for the Doctorate program does not exist. The candidate has to only sit exams in two foreign languages, two oral exams in the main subjects and publicly defend thesis. PhD academic degree was introduced in 1993, but in parallel with it a Doctor Habilitatus degree, which is awarded to the scientists with a PhD degree after defending Habilitation thesis, has also been preserved. An obligatory precondition for being awarded professor's title is exactly Dr. Hab. Degree. These degrees are awarded by university. Besides this, there exists Doctor of Hungarian Academy of Sciences title, the exclusive right of granting of which is enjoyed by the Academy of Sciences. Only the persons having this title are chosen as members of the Academy,

⁵ Zwei Jahre Juniorprofessur. F.Buch. 2004

which, correspondingly, increases the number of the title seekers and, in parallel, it depreciates the prestige of the degrees awarded by the university (The Academy of Sciences in Hungary is an influential structure, which is to be reckoned with).

Slovenia

There are only two universities and nine private higher educational institutions in Slovenia (With the population of around two million) The higher education is regulated by the law adopted in 1993 (Amendments to it were made in 1999 and 2001) Doctorate programs in Slovenia are organized in accordance with the US model: Doctorate programs are carried out within the universities together with Masters' programs. After Bachelor studies, the length of Doctorate programs is 4 years and after Master studies – 2 years. Students can begin studying in the Doctorate, but after 2 years they can receive Master's degree and stop studying. Doctorate programs are only partially financed by the state: if on Bachelor's level studying in the state educational institutions is free of charge, on Master's and Doctorate levels students pay their own tuition fees. The universities themselves define the rule for admission of students after Bachelor's level.

Latvia

Doctorate exists within the universities as well as in the research institutes, but priority is given to the universities. An obligatory precondition for studying in the Doctorate, as a rule, is a possession of Master's degree or an academic degree equal with it (A specialist with a diploma is meant) The rule for admission to the Doctorate is defined by the university itself. Habilitation had existed till 1999, but after the amendments made to the Law on Scientific Activity, PhD became the highest academic degree. Latvia has preserved an analogue to the Board of Academic Experts of Georgia – the Latvian Scientific Board, which sets up Dissertation Panels.

Lithuania

Doctorate Studies exist only in the universities, albeit, in accordance with the Law on Higher Education, it is permitted to do part of the Doctorate work in other research establishments too; thesis defense and awarding of degrees is a prerogative of the university. An obligatory precondition for studying in the Doctorate, as a rule, is a possession of Master's degree or an academic degree equal to it (That is, a specialist with a diploma) The number of subjects in Doctorate Studies as well as the length of study and the number of credits is defined. Despite the fact, that in 2000 a binary system (B+M) of studying and PhD academic degree were introduced in Lithuania, the so called Habilitation is still preserved, which represents the highest academic degree in the country (*Doctor Habilitatus*) and is granted to the scientists with a PhD degree after defending Habilitation thesis, publishing monographs and/or important scientific publications.

Estonia

Doctorate level was introduced in a number of Estonian universities at the end of 90-ies and was made into a law officially in 2002. Doctorate Studies exist only in the universities.

Obligatory precondition for studying in the Doctorate, as a rule, is a possession of Master's degree or an academic degree equal to it (I.e. a specialist with a diploma). The Curriculum of educational programs of Doctorate Studies is worked out in the universities (Minimum 70 % - scientific work, the rest – teaching component), the number of credits of this program is defined (160 credits are necessary for accomplishment of a PhD program, out of which 40 credits cover teaching component and 120 – scientific work) Nominal length of a Doctorate program is four years. Publications are necessary for acquiring a Doctoral degree. Doctorate programs undergo accreditation procedures.

Russian Federation

“*Aspirantura*” (for acquiring a degree of a Candidate of Sciences) and “*Doctorantura*” Studies (for acquiring a degree of a Doctor of Sciences) exist in higher educational institutions as well as scientific research institutions of the Academy of Sciences system. A necessary precondition for admission to “*aspirantura*” is a possession of a diploma or an academic degree equal to it (as a rule - Master's degree) Necessary precondition for admission to Doctorate Studies is possession of a Candidate of Sciences degree. There exist various types of “*aspirantura*” and Doctorate Studies:

- Full Time
- Extramural
- “For special purpose, without the right to work somewhere”
- “For special purpose, with the right to work somewhere”

Besides, there exists the so-called seekers' institution. Doctor of Sciences is the highest scientific degree and an indispensable precondition for acquiring a professor's title. Russia retains the system used during the Soviet times, i.e. public defense of thesis in the presence of a commission made up by the Supreme Certification Commission, opponents, reviewers and confirmation of thesis defense results by the same Supreme Certification Commission etc. The reform of the system is not planned in the near future, in spite of the fact, that Russia became a party to the Bologna process.

2.2. The Past and the Present of Scientific Degrees in Georgia

16 ეორგია, “ასპირანტურა” (ფორ აქჟუირინგ ა დეგრეე ოფ ჩანდიდაგე ოფ შციენცეს) ანდ ოცგორალ შგუდიეს (ფორ აქჟუირინგ ა დეგრეე ოფ ოცგორ ოფ შციენცეს) ეხისგს ინ ჰიგჰერ ელუცაგიონალ ინსტიტუციონს ას წელლ ას ინ სციენტიფიკ-რესეარცჰ ინსტიტუტეს ოფ გჰე ცადემუ ოფ შციენცეს სესტემ, ალგჰოუგჰ გჰე მაჯორ პარტ ოფ სეეკერს ის სტილლ აცეჰულაგედ ინ გჰე უნივერსიტიეს (თაბლე 1) ნ ინდისპენსაბლე პრეკონდიციონ ფორ აღმისსიონ გო გჰე “სპირანტურა” ის პოსესესიონ ოფ ა დიპლომა ორ ან აცადემიკ დეგრეე (ასტერ'ს) ექჟალ გო იგ. ნ ობლიგატორუ პრერექჟისიტიე ფორ აღმისსიონ გო გჰე ოცგორაგე ის პოსესესიონ ოფ ა დეგრეე ოფ ა ჩანდიდაგე ოფ შციენცეს. თჰე სესტემ ის აბსოლუტეეე ანალოგიკალ გო გჰე ლუსიან სესტემ: გჰერე დოეს ნოგ ეხისგ ცურრიცულა ფორ “ასპირანტურა” ანდ ოცგორაგე შგუდიეს, ცორრესპონდინგლე გჰე ნუმბერ ოფ ცრედიტს ის ნოგ დეფინედ, სტუდინგ ინ “ასპირანტურა” მეანს ცარრეინგ ოუგ ოფ სციენტიფიკ წორკ

უნდერ ტჰე გუიდანცე ოფ ა სციენტიფიც სუპერვისორ. უბლიცაგიონს არე ობლიგატორე, ღეფენსე ოფ ტჰესის ის პუბლიც ინ ტჰე პრესენცე ოფ ტჰე “ისსერგაგიონ ოარდ”, ტჰე ღეფენსე რესულტს არე ცჰეცკედ ბე ტჰე ოარდ ოფ ცადემიც სჰერგს. ესიდეს ფულლ გიმე ანდ ეხტრამურალ სტუდიეს, ტჰერე ეხისტს ტჰე სო-ცალლელ სეეკერს’ ინსტიტუციონ ინ “ასპირანტურა”.

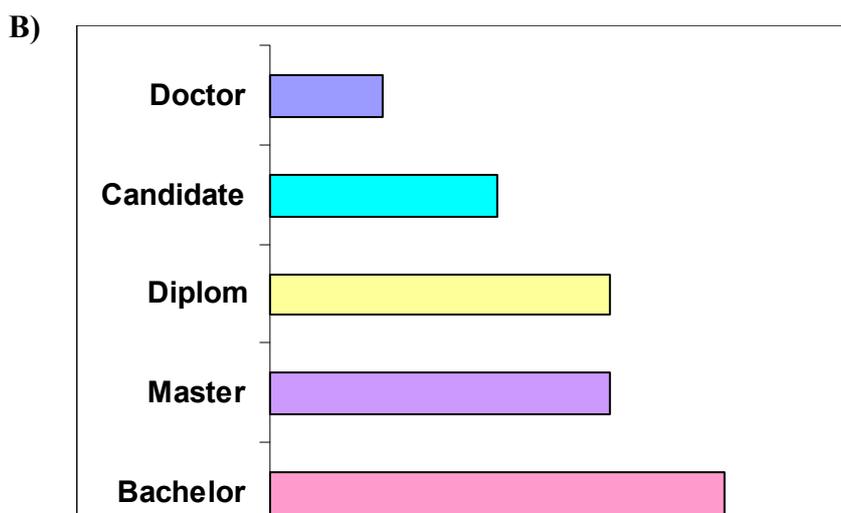
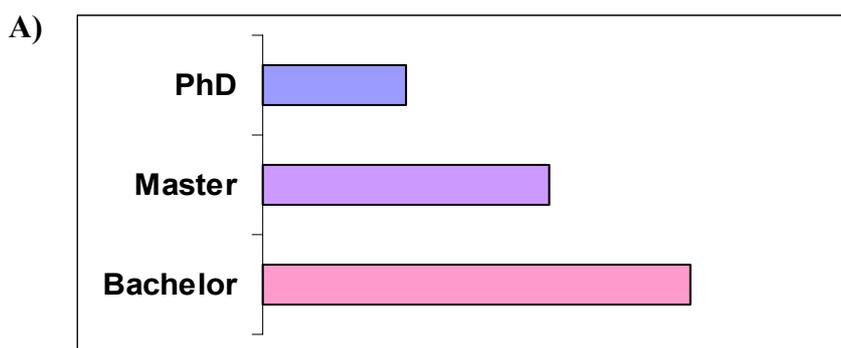
Table 1.

The source: The State Statistics Department of Georgia.

	2000	2001	2002
Total number of aspirants	1747	1709	1765
In HEIs	1356 77,6%	1268 74,2%	1380 78,2%
In research institutions (Academy of Sciences)	391 22,4%	441 25,8%	385 21,8%

Since 1994, along with the traditional five year higher educational model, new forms of teaching have also been implemented in Georgia: certain specialties prepare students for Master’s and Bachelor’s degrees. But the old two cycle system of awarding of scientific degrees has not changed: in accordance with the law, awarding of a scientific degree of Candidate of Sciences will continue till 31 December, 2006, i.e. currently a four cycle system of academic degrees (Bachelor – Master – Candidate of Sciences – Doctor of Sciences) is operational (See Scheme1).

**Scheme 1. The Systems of Academic (and Scientific) Degrees in
A) English speaking countries; B) Georgia.**



Awarding of scientific degrees is regulated by a special provision, updated version of which was approved by the order of president E. Shevardnadze on 28 June 2003. The same provision and instruction regulates awarding of scientific-pedagogical titles in Georgia.

In accordance with the provision:

“Candidate’s work must comprise scientifically grounded new theoretical or experimental results, which are of substantial importance for the relevant field of science;

A thesis submitted for being awarded Doctor of Sciences degree must be an accomplished scientific research, in which a scientific problem (Problems) is solved and the results on par with the existing international levels are received.”⁶

If we look at the statistics of defending Candidatship or especially Doctorate theses over the last years, we can speak of a rather impressive quantity “ of scientific problems ... solved on par with the existing international levels” in Georgia (Table 2).

Table 2

The source: The State Department of Statistics of Georgia.

	1999	2000	2001	2002
Number of the Candidates of Sciences	6269	5067	4926	5998
Number of the Doctors of Sciences	1818	1464	1381	1811

An independent system of awarding of scientific degrees and scientific pedagogical titles has been operational in Georgia for ten years now. The main structure, that heads this process is the Board of Academic Experts of Georgia (BAEG), which together with the Dissertation Boards (The number of Dissertation Boards has currently exceeded 100 in Georgia), carries out the state policy of certification of the highest quality scientific personnel.

The general assembly of BAEG, including the BAEG chairman, his two deputies and the main academic secretary of BAEG, consists of 37 members.

The provision on granting scientific degrees in Georgia worked out by BAEG, defines such issues connected with the defense of theses, as composition of Dissertation Boards, number of Candidatship exams, requirements for thesis work, submission of thesis to the Dissertation Board, its public defense, filling in and issuance of diplomas etc.

⁶ Provision on Granting the Scientific degrees in Georgia. Article 4, Paragraph 2,3.

The main activity connected with thesis defense is carried out by the relevant Dissertation Board. Whatever concerns BAEG, it:

“Registers and issues diplomas confirming awarding of scientific degrees three months later after the defense of thesis”.⁷

After going through the above-mentioned procedures, a diploma issued by BAEG should attest to the highest qualification of the scientific personnel. In reality everybody knows, and this has been acknowledged by the BAEG itself recently, that the quality of greater number of theses defended in Georgia does not conform to the world standards.

As Academician Georgi Kharadze, the chairman of the Board of Academic Experts, notes, it is often impossible to comply with the BAEG requirements and publish Doctorate students' works in the high impact-factor journals.

“It is noteworthy, that due to certain reasons (language barrier, limitations of dissemination) a certain number of scientific publications, which used to be disseminated in the former Soviet Union area, could not make it into the list of the high impact-factor magazines”⁸

The problems of Georgian scientists working outside Georgia are also highlighted there:

“The future of those young researchers, who currently work in the high level scientific environment outside Georgia is also a very painful issue. The future of science in Georgia, to a great extent, hinges upon creation of such conditions, which would ensure return of the qualified young scientists to their motherland and offering them of well-deserved positions. The most important of these conditions is creation of a scientific environment in Georgia, which will be on par with the international standards. In the reverse case, it will turn out, that the young scientists, who have returned to Georgia and who are “overqualified” with respect to BAEG requirements will find the vacancies occupied”.

The reason for brain drain is really an irrelevant scientific environment and low imbursement. But only this cannot explain the fact that the number of young people in the scientific field is decreasing.

The existing system of scientific degrees defines a very high average age of professors and teachers in Georgia: 64 years (Table 3), when in English speaking countries this indicator is 45 years. Professors and teachers staff aged 65 and above comprise 70-80% of the total number of employees at the whole number of Chairs of the Tbilisi State University. Young scientists are restricted in carrying out independent research, can not occupy equal positions in higher educational institutions and research centers, which often induces them to quit scientific work and/or leave the country.

⁷ Provision on Granting the Scientific degrees in Georgia. Article 7, Paragraph 1.

⁸ www.acnet.ge

Table 3. The Age Indicators of Georgian Scientists

85% of the Doctors of Sciences are above 50 years of age. If we take into the consideration, that it is namely the Doctors of Sciences, who are entitled to professor's positions, the seriousness of the situation springs to the eyes.

The source: The State Department of Statistics of Georgia.

Age	Doctors of Sciences	Candidates of Sciences
Total	1428	5074
-29	-	77 – 1.5%
30-39	33 – 2%	509 – 10%
40-49	181 – 13%	1086 – 21%
50-59	374 – 26%	1433 – 28%
60-69	438 – 31%	1340 – 26.5%
70+	402 – 28%	629 – 13%

2.2.1. The Main Directions of the Higher Education Reform

Growing competition and necessity of technological innovations reduces competitiveness of Georgian science (and economy) The programs offered by the Georgian universities have to take a big share of blame for this, as they are less competitive in comparison with the foreign ones.

The new times have brought new requirements for the higher education. It must be flexible and variegated, to ensure, for modern Georgia, training of the competent personnel with skills akin to international standards.

During the reform of higher education system, Georgia must take into account experience of the leading and successful educational centers of the world.

The “Law on Higher Education” stipulates the main aspects of the system’s reform:

- Establishment of the quality assurance system.
- Changing of the model of financing higher education.
- Conversion of the higher education to the three-cycle system: Bachelor Studies, Master Studies and Doctorate Studies.

The three-cycle system of higher education clearly delineates the competences among the relevant cycles and defines their relationship with the labor market.

„bakalavriati – umaRlesi sauniversiteto
ganaTlebis pirveli safexuri – iseTi saswavlo
programebis erToblioba, romelic iTvaliswinebs
Sesabamisi specialobebis Teoriuli safuZvlebis
swavlebas, rac aucilebelia kursdamTavrebulis
magistraturaSi Semdgomi swavlisaTvis, an iseTi
profesiis asaTviseb-lad, romelic studentisgan

saSualo ganaTlebaze ufro maRal sawyiss
momzadebas moiTxovs.

magistratura - umaRlesi sauniversiteto
ganaTlebis meore safexuri - iseTi saswavlo
programebis erToblioba, romelic aucileblad
Seicavs samecniero kvlevis elementebs da miznad
isaxavs bakalavris Semdgomi donis specialistis
an mkvlevaris momzadebas".⁹

ის აცხადებდა, რომ თუკი აწ, ოცდორაგე ის ა ფინალ ცეცლე ოფ სციენტიფიკ
პროფესიონალ გრაინინგ ინ გჰე ჰიგჰერ ელუცატიონალ ინსტიტუციონს, გჰე აიმ ოფ
წიციკ ის გო პრეპარე სციენტიფიკ პერსონნელ. თჰე რიგჰტ გო სგულე ინ გჰე
ოცდორაგე ის ენჯოყედ ბე ასგერ ორ ა პერსონ წიციკ ექჰალ ქჰალიფიციაციონს. თჰე
ლაწ დეფინეს გჰე ლენგტ ოფ სგულე ინ გჰე ოცდორაგე (ბე პოინტინგ ოუგ გჰე
ცრედიტს), გჰე ცონდიტიონს ანდ რულეს ოფ აწარდინგ ა დეგრეე. თჰე გრანსიტიონალ
პროფესიონს ოფ გჰე სტატუტე პროვიდე გჰე ლატეს ფორ მოვინგ გო გჰე გჰრეე-ცეცლე
სესტემ ოფ გჰე ჰიგჰერ ელუცატიონ.

The statute was adopted on 21 December 2004, and thus, now it's necessary to carry out the preparatory work for implementation of Doctorate Studies for the purpose of facilitating a painless transition from a two cycle system of the scientific degrees to the one cycle one.

Despite the fact, that the statute unequivocally defines introduction of Doctorate Studies, the number of opponents will still be quite high. Their main argument is that in the whole number of continental European countries (Germany, Austria, Eastern European countries, Commonwealth of Independent States) there still exists a two-cycle system of scientific degrees.

ჩოუნგერ-არგუმენტ: გჰე მოსტ სუცეცსულ ოცდორაგე პროგრამს ინ გჰე
წორლდ არე აცკნოწლედედ გო ბე გჰოსე ოფ ნგლისჰ სჰეაკინგ ცოუნტრიეს, ნამელე
გჰე შ ანდ გჰე ოცდორალ პროგრამს. იგჰერ ელუცატიონალ ინსტიტუციონს ოფ
გჰესე ცოუნტრიეს ჰავე გჰე ჰიგჰესტ რანკინგს ამონგ გჰე უნივერსიტიეს ოფ გჰე
წორლდ¹⁰. თჰის ფაცტ წას აცკნოწლედედ ბე ოცჰერ უროპეან ცოუნტრიეს გო ანდ
ნოწ გჰე რეფორმს უნდერწაყ ინ გჰოსე ცოუნტრიეს ენვისაგე ცრეატიონ ოფ გჰე
ჰიგჰერ ელუცატიონ სესტემს ეხაცლე ლიკე გჰატ ოფ გჰე შ ფორ გჰე ჰურპოსე ოფ
ბოოსტინგ ცომპეტიტივენეს ოფ უროპეან უნივერსიტიეს ინ გჰე წორლდ მარკეტ.

Doctorate programs are in paradoxical situation in many countries of Europe today. On the one hand, abatement of interest in Doctorate Programs in such professions, which are not solely oriented on research, is noticeable. On the other, the necessity for development of knowledge-based economy calls for training of the high quality professionals, which means development of relevant Doctorate Programs. Besides, we have to also note, that the age indicators of professors in European universities reach alarming limits and the issue of the necessity of new personnel is also very actual there too¹¹.

Georgia has an unique chance, to keep pace with the processes underway in the higher education sphere and without plowing through the intermediary stages, directly form the most

⁹ საქართველოს კანონი "უმაღლესი განათლების შესახებ" მუხლი 2.

¹⁰ Martin Walker "Situation in European Universities" (2004).

¹¹ Doctoral Degrees and Qualifications in the Contexts of the European Higher Education Area (EHEA) and the European Research and Innovation Area (ERIA)

viable and efficient system of Doctorate Studies based on the experience of the most successful universities.

3. Doctorate as the Third Cycle of Higher Education.

3.1. The Goals of Doctoral Programs.

The main goal of Doctorate Studies is to prepare such specialists, who will become leaders of the relevant spheres of the professional activity, who will be able to creatively create new knowledge, critically analyze the accumulated ideas, and take responsibility for transformation and dissemination of this information, by means of publication, teaching and implementation¹².

Thus, a graduate, possessing university PhD Academic Degree, must be able to fulfill three main aspects of knowledge and skills:

- Generation of knowledge and skills.
- Conservation of knowledge and skills
- Transformation of knowledge and skills

Generation of Knowledge and Skills

PhD, by its essence, is a scientific degree. The skill to carry out research independently is the main characteristic feature of the specialists having this degree. Creation of new knowledge and skills as a result of research and study enables a leader professional to assess, criticize and defend the gleaned knowledge. A leader must be able to put decisive questions. Traditionally, it is namely this, which is the main aspect of the Doctorate education: formation of critical questions in the quest for new knowledge.

Conservation of knowledge and skills

The other, no less important characteristic feature of leadership in the professional field is understanding and advocating of the background and the main ideas of the discipline. A scientific discipline is constantly developing and changing; responsibility of a leader is to maintain consistency and viability of the knowledge, the field. A Doctor must understand the bases of the discipline, he must know, which ideas are worth preserving and which are not. Moreover, Doctor must know, how the sphere of his scientific research fits the general intellectual space; he must also know the main issues from the adjacent and other scientific spheres and must understand how to cooperate with the representatives of other fields during interdisciplinary research.

Transformation of knowledge and skills

Finally, an indispensable aspect of Doctor's qualifications is an ability to transform knowledge: to present the obtained knowledge in an effective and understandable form. Transformation of knowledge means teaching in the direct understanding of the word. Aside from scientific research, no less important obligation of a Doctor is to deliver knowledge to the

¹² Preparing Stewards of the Discipline. Carnegie Initiative on the Doctorate

coming generations. The forms of organizing teaching is not of principal importance: these can be university lectures and workshops, political or industrial meetings – Doctor, as a leader in his discipline, should know how to communicate on any given level, be it on the professional one or in dealing with the society at large as well as how to provide understandable information to all the interested parties.

One of the forms of conversion of knowledge and skills is its practical implementation. Doctor should understand the aspects of practical application of his knowledge.

It is clear from the above mentioned, that the requirements imposed on Doctors are very high. A specialist having a PhD degree should strive to preserve the knowledge and experience obtained in the past and at the same time to develop projects for future, for the purpose of ensuring constant renovation of the field of his research and the academic discipline. The Doctors' task is to bring up future generations of leaders.

Coming out from this, it is of great importance, how the process of preparing Doctors will be organized.

3.2. Admission to the Doctorate

Doctors are leaders and top-notch professionals, correspondingly only the best students must be admitted to the Doctorate Studies.

The rules of admission do not greatly differ among different countries: Master or a person with an equal degree to him is admitted for Doctorate Studies; the necessity for admission exams is defined by the relevant higher education institution and/or its department. As a rule, Doctorate students in English speaking countries do not have their thesis topics defined at the moment of admission: the topic is mainly selected at the end of the first year of studying in the Doctorate.

In Georgia, e.g. the citizens of up to 35 years of age, who have higher education and at least one year of work experience in the chosen field of specialty, are admitted, on full time, to “aspirantura” of Tbilisi Iv. Javakhishvili State University¹³; but there are exceptions too: the graduates this year must submit a reference for “Aspirantura”, which is issued by the Scientific Board of the higher education institution. The “for special purpose” seekers are required to submit two scientific works. Applicants for “Aspirantura” sit entrance exams in the main subject, foreign language and computer. The title of the thesis topic is approved immediately after being admitted to “Aspirantura”, but the possibility to change it later exists.

Recommendations

The precondition for being admitted to Doctorate Studies is possession of Master's degree or an academic degree equal to it. The person, who wishes to be admitted for Doctorate Studies must have high academic results.

A desirable prerequisite for admittance is existence of scientific topics and a preliminary consent of a probable scientific supervisor. This does not mean a precise definition of the title of the thesis topic, but an applicant for Doctorate Studies must clearly present the sphere of his interests. Scientific supervisor must corroborate the possibility of carrying out research in this sphere.

¹³ www.tsu.edu.ge

The second variant is also possible: Faculty/Department/Chair announces research topics and offers them to the future Doctorate students. In any case a Doctorate student must be provided with the necessary conditions for conducting research as well as a qualified scientific supervisor.

The issue of changing thesis topic and/or scientific supervisor must be regulated individually by each university in accordance with a worked out rule. Here, the main principle must, by all means, be adhered to: changing of the topic during the last year of studying in the Doctorate automatically lengthens the period of study/research.

3.3. Academic Content of Doctoral Programs

The main characteristic feature of the new type of Doctorate Studies is the presence of a teaching component.

Doctorate Studies in English speaking countries are thought of as scientific-teaching process and not merely as scientific research, as it is traditionally the case in other countries.

Teaching component on Doctorate Studies level is not very usual for Georgian universities, although in the Soviet period, philosophy and a foreign language were taught in “Aspirantura”. Today, in the absence of teaching process, seekers are directly required to take Candidatship Minimum exams in the specialty and a foreign language.

Today, the right question is: what and how should we teach in Doctorate Studies?

The teaching process must ensure deepening of knowledge as well as its expansion.

What shall we teach?

1. Subjects of the discipline
2. Modern methods of research
3. High school pedagogy
4. Communication and management

How shall we teach?

1. Individual teaching programs
2. Workshops
3. Interdisciplinary approach.

Above are provided those basic principles, which must, by all means, be adhered to while working out Doctorate programs.

Doctorate education is not merely a continuation of Bachelor and Master Studies, it has totally different goals and this is why different forms of teaching should be used here. As it has already been mentioned, PhD is a scientific degree by its content, which confirms the ability of its owner to independently create, develop and present new knowledge and skills. Thus, Doctorate Studies level must pay special attention to development of such qualities of students as independent work, ability to define a problem, communication etc.

The subjects of discipline must be taught thoroughly and intensively in Doctorate Studies. A certain discipline is learned on Master’s level, but in Doctorate Studies we should approach this from a different angle: traditional lectures in this case are non-efficient. The work

with Doctorate students must be carried out in the form of seminars, where they will have the possibility of independently presenting their topics, discussing, exchanging ideas. The lecturer, in this case, loses a mentor's function and assumes a moderator's one. This form of studying Academic Disciplines must be blended with practical work, during which Doctorate students will have the possibility to learn the most modern methods of research.

The study of high school pedagogy and education management is of utmost importance in Doctorate Studies. The future Doctors must learn, how to teach a discipline, how to research and present etc. as Doctors are future professors and teachers in the universities.

Communication and management are those subjects, teaching of which on Doctorate level has not been considered yet. But while compiling the Curriculum, requirements for possible fields of employment of Doctorate students must be taken into account. Besides the universities and scientific research institutions, Doctors can work in industry, government and in any other field of professional activity. Correspondingly, they must be able to deal with the people of different professions as well as to head crucial interdisciplinary projects. Communication and management seminars are a necessary component for preparing the future leaders.

Recommendations

Drafting of the Curriculum of Doctorate Studies is a responsibility of a relevant Department or Departments, just like drafting of the relevant Syllabi – responsibility of the relevant professors.

While working out the teaching component in Doctorate Studies the length of tuition must be taken into account. – the statute “On Higher Education” fixes at least a 3 year period.

The form of studying in Doctorate is only full time. The Correspondence Courses and the seeker's institution should no longer exist as they are incompatible with Doctorate Studies' goals and content. (This is supported by the new legislation too)

Accomplishment of a fully-fledged scientific work - a thesis work - requires at least 2-2.5 years of intensive work (These dates may vary when dealing with either the humanities or science subjects). Correspondingly, the length of a teaching component will be limited. Based on the Western experience, it is expedient to have the following ratio of educational and research components: 30% - teaching; 70% - research. In case of the necessity, a Doctorate student must be allocated additional time for accomplishing the research. Respectively, the length of Doctorate Studies in certain fields may be 4 years.

Based on the European experience, the necessary number of credits for acquiring a PhD degree is 60 per year, but this number should be defined by the universities separately for each concrete case. In Austria, e.g. it was defined, that at least ECTS 240 credit was necessary for acquiring a PhD degree¹⁴, i.e. it is possible, that the number of credits will go up. In the US system, the number of credits for Doctorate programs may reach 500¹⁵.

¹⁴ “Trends 2003: Progress towards the European Higher Education Area”.

¹⁵ B. Parsonson. Social Science Doctoral Program Options: UK and USA degree models. 2004.

Publications – the issue of the necessity of these is defined in accordance with different specialties by the relevant higher educational institutions or departments.

Working out of PhD programs in Georgia is tied up with a number of difficulties: first, working out of Doctorate Study programs will automatically trigger fundamental overhauling of the Bachelor's and especially of the Master's programs, which, naturally, requires time. A number of subjects, which are currently taught on Master's level, may be delegated to the Doctorate level. Preparing of Doctorate programs requires at least one year of intensive work. Support of our Western colleagues in this process is desirable, as in the reverse case preparation of the low quality programs or a mere copying of the programs placed on the Western universities' web-sites is not excluded – unfortunately such type of plagiarism is quite widespread in Georgia.

The most painful problem is a material-technical support of Doctorate Studies. For the purpose of conducting scientific research work in compliance with the international standards it is necessary to equip the departments properly, otherwise Doctorate Studies will be of only a formal character.

Introduction of quality assurance system is crucial at the Doctoral level.

Prognosis

If the above mentioned conditions are met, than it's expected, that the number of Doctorate programs will decrease in coming years, as not all the universities and departments will be able to ensure preparation of the pertinent Doctorate programs.

Training-retraining of the current professor-teacher staff of the universities poses a serious problem – working out of Doctorate programs and learning the new principles of working with Doctorate students requires a certain knowledge on the part of the professors. It is advisable, that the relevant trainings are carried out by our foreign colleagues in the universities, as this will increase the factor of their reliability, but at the same time this will cause additional expenses.

14. Institutional Preconditions for Adopting PhD system

The legislative preconditions for adopting PhD system are regulated by the law “On Higher Education”. Whatever concerns institutional preconditions, there are lots of things here to be streamlined yet.

Firstly, the place for implementation of Doctorate programs must be defined. Presently “Aspirantura” exists in Georgia not only in the higher educational establishments, but also in the scientific-research institutions of the Academy of Sciences system. In 2002, Georgian law on “Certification of the Highest Qualification Scientific and Scientific-research Personnel” was adopted, which unequivocally spells out that:

“Candidate of Sciences and Doctor of Sciences scientific degrees are awarded by the Dissertation Board of the relevant field on the basis of public defense of thesis. The Dissertation Boards are created in the relevant

fields of the state higher educational establishments and scientific-research institutions with high scientific achievements¹⁶.

The 4-th article of the same law defines the right of a scientific-research institution to award a professor's scientific-pedagogical title.

It is known, that

“In case of contradiction between the normative acts of one and the same level of hierarchy, the primacy is given to the norm, approved by the act adopted (issued) later”.¹⁷

So, in this case, primacy is given to the law “On Higher Education”, but this law only covers the issues connected with higher educational establishments. The law says nothing about the scientific research institutions (Unless we consider the 4-th paragraph of the 30-th article – see below), correspondingly, the existence of “Aspirantura” in these institutions has a legal basis. This issue has to be clarified immediately, or else existence of parallel systems is inevitable.

But this must not mean voiding of participation of scientific-research institutions on Doctorate Studies level – on the contrary, during the transition period, Doctorate students of the universities must have right to carry out part of the research work on the basis of the institutes of the Academy of Sciences, where the material-technical bases are often-times much better than in the universities. Existence of two scientific supervisors must be permissible (One - from the university, another – from the institute of the Academy of Sciences). This is also stipulated by the law “On Higher Education” – article 30, paragraph 4:

“The Higher

“*umaRlesi saganmanaTleblo dawesebuleba
uflebamosilia gaaformos xelSekruleba samecniero-
kvleviT dawesebule-basTan doqtoris
saganmanaTleblo programebis gansaxorcieleblad.*”

The same article of the law defines the rule and responsibility of staffing the Dissertation Boards existing with the departments:

“Procedures-----

“*sadisertacio sabWoebis Sedgenisa da
Tavmjdomaris arCevis wesi ganisazRvreba
akademiuri sabWos mier fakultetis sabWos
wardginebiT damtkicebuli debulebis Sesabamisad.
sadisertacio sabWo Sedgeba doqtoris akademiuri
xarisxis mqone yvela profesorisa da asocirebuli
profesorisgan. umaRlesi saganmanaTleblo
dawesebulebis wesdebiT SeiZleba ganisazRvros
fakul-tetis sadisertacio sabWoSi sxva umaRlesi
saganmana-Tleblo dawesebulebis profesorის an
asocirebuli profesorის მოვვევის wesi da
pirobebi.*”

¹⁶ Georgian “Law On Certification of the Highest Quality Scientific and Scientific-Pedagogical Personnel”. Article 3. Paragraph 2.

¹⁷ Georgian “Law on Normative Acts”. Article 25, Paragraph 2.

sadisertacio sabWo moqmedebs akademiuri sabWos
mier fakultetis sabWos wardginebiT damtkicebuli
debulebis Sesabamisad da doqtoris xarisxs
aniWebs mecnierebis im dargebSi, romlebic
gansazRvrulia am debulebiT”.¹⁸

It is a welcome fact, that departments are given a free hand to define the terms of awarding Doctor’s degree at their own discretion. According to this article of the law, it’s possible for the different departments of one and the same university to have different terms, which will be reflected in the respective provisions, to say nothing about the variations among different higher educational establishments. This versatility of provisions of the Dissertation Boards, on the one hand, shows difference among different disciplines and provides a possibility of formation of the adequate demands in the relevant fields, but – on the other – there is some risk here too: control of the quality of Doctorate programs may become difficult if all the programs pose totally different demands for acquiring Doctor’s academic degree.

We have already mentioned the necessity for ensuring the quality of Doctorate programs. Institutionalization of the quality control system must be effected; the quality control must be done on a regular basis. The universities and the employers as well as the whole Georgian society should know how efficient Doctorate programs are in the Georgian universities.

- How efficiently do Doctorate programs prepare graduates for their future careers.
- How efficient are Doctorate programs in respect with preparation of the future professors and teachers.

This and other questions must be answered by the Quality Assurance System.

Development of Doctorate programs thoroughly transforms the style of work of the universities per se. It is universally acknowledged, that Doctorate Programs benefit universities. Functioning of the Doctorate Studies is directly linked with the educational scientific mission/purpose of the universities. This link enriches the students participating in Doctorate programs as well as the universities. The creative work of the young, intelligent students in research laboratories creates a unique environment and attracts the best professors to the universities and conversely, existence of the experienced professors’ staff is an important argument for luring in of good students.

For ensuring creative process on the Doctorate level, existence of relevant academic and administrative structures in the university is necessary.

A special body (university department or faculty) must ensure the process of admission of the students for Doctorate Studies, provision of information to them, collection and sorting out of the relevant documentation. Later on, constant monitoring of the academic and scientific progress of Doctorate students must also be ensured: evaluations, number of credits and other types of information must be collected permanently and preserved.

The efficient coordination of this body, deans offices, chairs and other structural units of the university, among them the Quality Assurance Office, is necessary.

Selection of the students and implementation of Doctorate programs must be carried out on the faculty level, although the existence of interfaculty/interdisciplinary Doctorate programs is not ruled out.

¹⁸ Georgian “Law on Higher Education”. Article 30. Paragraphs 2,3.

The university offices must be ready to timely smooth out arising problems. Constant retraining of the professors and teachers staff is crucial for the successful conduct of Doctorate programs. Working out of the new, interdisciplinary Doctorate programs, adaptation of the existing ones with the modern requirements, links with probable employers, regulation of the number of Doctorate students, financial and material-technical support of teaching and scientific processes – this is an incomplete list of those obligations, which the relevant offices of the university should fulfill. Functioning of Doctorate programs without the relevant administrative support, alongside the academic process, is unthinkable.

Thus, for transition to PhD system, it's necessary to fulfill the following institutional preconditions: the relation with “aspirantura” existing in the Academy of Sciences must be defined; work principles of the Dissertation Boards must be defined; administrative offices of Doctorate programs and the Quality Assurance must be created.

Recommendations

The law “On Higher Education” says nothing about ‘aspirantura’ in the Academy of Sciences institutes. Existence of parallel systems is not advisable in such small countries, as Georgia. Doctorate education must be accommodated within the unified institutional framework. For this purpose, it is necessary to streamline the relevant legislative basis.

The typical provision of the Dissertation Board, which will facilitate ensuring the quality, must be worked out.

It won't be efficient if the issue of awarding degrees is decided by all the professors and the associated professors of the Dissertation Board; at the backdrop of the anticipated consolidation of faculties, the number of the Dissertation Board members will increase very much. Professors should point out the fields of their competence and during submission of each concrete thesis, the secretariat of the Dissertation Board (or some other body) must assign the professors, who will have the right to decide granting of a Doctor's degree, for the public defense of theses. The details must be defined by the university Provision/Charter and the Provision of the Dissertation Board.

Ensuring the quality of Doctorate programs is a necessary prerequisite for the Program Accreditation. Participation of the foreign experts is inevitable at the initial stage (and most probably in future too, due to smallness of the country)

Relative Academic and Administrative structures, which will ensure the necessary conditions for the implementation of Doctorate programs, must be created within the universities.

3.5. Financing of Doctoral Programs

In accordance with the newly adopted law, Doctorate Studies (Together with Master Studies) are financed from the scientific grants – i.e. existence of the scientific grant at the faculty/laboratory/institute is an indispensable precondition for admitting Doctorate students.

“The state-----

“magistraturisa da doqtoranturis programebis
saxelmwifo dafinanseba xorcieldeba saxelmwifo

samecniero-kvleviTi grantiT saqarTvelos
ganaTlebisa da mecnierebis saministros mier
gansazRvruli prioritetebis Sesabamisad,
specialuri saxelmwifo programiT.¹⁹”

Correspondingly, while calculating a scientific-research grant, the issue of financing Doctorate students must also be taken into consideration. This is a new practice in the higher education system of Georgia. If we add to this rather a meager experience of our scientists in the issue of submission of the research projects and the modest means of our state for financing the scientific sphere, it becomes clear, that the state financing of the Doctorate Studies is totally insufficient for its normal functioning.

According to the law, such situation must not continue long:

“Before January-----[20]

“saqarTvelos ganaTlebisa da mecnierebis
saministrom 2007 wlis pirvel ianvramde SeimuSaos
magistraturisa da doqtoranturis dafinansebis
axali wesi da pirobebi”.²⁰

Though this rule and conditions are not stipulated anywhere and it’s not clear what is in store for the financial support of Doctorate programs.

In any case, the universities must start looking for additional sources of financing Doctorate Studies right away.

Pricing of the programs is necessary. Even today, studying in the Aspirantura and the Doctorate of the Tbilisi State University is tied up with lots of expenses.

თქვე ფეე ფორ სტუდენტებზე ინიციატივა “ფორ სპეციალ პურპოსე სპირანტურა” ის შჯ 250 ჰერ ყეარ (ჭჰენ სტუდენტებზე ატ გჰე ნონ-ბუღეგტარე სეცტორ ოფ გჰე აცჰელორ’ს ლეველ ოფ გჰე სამე თბილისი შტაგე ნივერსიტეც ის გო აპპრობიმაგელე შჯ 500 ა ყეარ); გჰე პრიცე ფორ სიტგინგ ეხამს ინ ეაცჰ სუბჯეცტ ფორ გჰე ჩანდიდაგესჰიპ ინიმუმ ის 30; გჰე სტუდენტებზე სენტ ფორ ოცტორაგე შტუდიეს გო გჰე თბილისი შტაგე ნივერსიტეც ფრომ ვარიოუს ჰიგჰერ ელუცატიონალ ინსტიტუციონს ჰაე შჯ500 (იცს ექუივალენტ ინ); ფორ ფორეიგნ ციტიზენს – ექუივალენტ ოფ შჯ1350²¹.

Obviously, the listed prices do not absolutely reflect the real cost of the programs. When the value of the state grant for Bachelor’s studies is GEL 1250-1500, it’s hardly believable, that studying in Aspirantura costs equivalent of \$250. The price of Doctorate programs will increase considerably; it won’t be the same in different fields: the price of Doctorate programs in science, medicine and technology is a number of times higher than the price of Doctorate programs in humanities and social sciences. We have to add to this the post reform costs of administration of Doctorate programs and the quality assurance – so it is not hard to guess, that there are not many Doctorate students in Georgia, who can cover the cost of studying in Doctorate programs themselves.

A possible alternative for self-financing is existence of special state programs in the priority fields. But the number of such fields is limited and because of this, the issue of developing non-priority fields remains questionable.

¹⁹ საქართველოს კანონი “უმადლეცი განათლების შესახებ” მუხლი 83, პუნქტი 3.

²⁰ საქართველოს კანონი “უმადლეცი განათლების შესახებ” მუხლი 88, პუნქტი 10.

²¹ www.tsu.edu.ge

Concessionary long term bank loans is a received method for financing students and namely Doctorate students in Europe and America. This model of education financing is not widespread yet, but implementation of such practice by the Georgian banks will be very welcome.

In compliance with the law “On Higher Education” Doctorate students have a right to work in the capacity of assistant professors in the universities - the salary can be viewed as a form of financing the studies. This is an ideal model, but we have to take account of the fact, that accepting of the first and probably the second year Doctorate students on the assistant-professors’ position is less likely, i.e. receiving of salary for the work in the university is possible only in the third year of Doctorate Studies. Besides, the assistant-professor vacancies will surely not be enough for all Doctorate students. We must not forget, that salaries of the university employees are not so high, as to completely cover tuition costs. For Doctorate students, working in the other, higher paying organizations will at best be possible during the second or third year – studying in the Doctorate is full time. The Doctorate program is so loaded and taxing, that other types of activity (conducting seminars and practical lessons in the assistant professor’s capacity outside university) will harmfully affect carrying out of the main obligations by a Doctorate student.

Unless the state assumes responsibility to financially ensure Doctorate Programs, development of such programs is devoid of sense. The state financing must play decisive role at least at the initial stage. The private sector is not so strong in Georgia, as to establish serious stipends for Doctorate students: support of the students by the Georgian funds is a rather remote perspective. But active participation of the local donors is not excluded in the whole number of fields.

Doctorate programs of the US universities are acknowledged throughout the world. The country’s investments in research & development, which naturally also mean financing of Doctorate programs, increase yearly and reach several billion dollars. The government and industry, the principal investors, understand, that this will eventually yield profit in the long term. Creation of knowledge-based economy is impossible without the properly trained personnel. The leading universities of the developed countries receive state as well as private financing.

Georgia is not a rich country, and before it undertakes to finance Doctorate programs, it has to solve many other acute social problems. Increase of the investments in the higher education system may mean their reduction in other spheres. Georgia does not have enough resources to satisfy all the requirements. Creation of the successful higher education system is not cheap and it means cutting down on other expenses. How well is our society prepared for this today?

Investing in the higher education reform is of utter importance. The human capital represents a very valuable resource of Georgia. It is not risky to invest in human capital. Education means development. Development conduces to education, as the economic growth provides a possibility to expand various fields of education.

3.6. The Stages for Moving to PhD system

Formation of the new education system is always connected with problems. But it’s much more difficult to transform the existing system and work in the parallel regime. Here, certain compromises are inevitable.

The law “On Higher Education” decrees:

“ The scientific-----[22]

„ამ კანონის ZalaSi Sesvlamde mopovebuli
mecnierebaTa kandidatis samecniero xarisxi
gaTanabrebulia doqtoris akademiur xarisxTan.

am muxlis me-9 punqti vrceldeba agreTve pirebze,
romlebic gaxdnen an gaxdebian aspirantebi
(maZieblebi) da umaRles saganmanaTleblo
dawesebulebaSi am კანონის Sesabamisi
sadisertacio sabWos Seqmnamde moipoveben
mecnierebaTa kandidatis xarisxs, magram ara
ugvianes 2006 wlis 31 dekembrisa”.²²

This article of the law will inevitably trigger a flare of passions. A Doctor’s Academic Degree is awarded to everybody, Candidates of Sciences and the Doctors of Sciences, which causes a well-deserved protest of the later. An idea, that the Doctors of sciences will have a certain advantage in occupying the academic positions, reigns supreme in the scientific circles and correspondingly defense of Doctorate theses is continuing. It is to be cleared out, how legitimate this process is, as the law stipulates defense of only the Candidatship theses and the Doctorate theses are not even mentioned by it. This legal misunderstanding further exacerbates the situation.

On the one hand, according to the 2002 data, there are 1811 Doctors of science in Georgia, out of whom 59% are above 60 years of age²³. It’s quite likely, that the number of Doctors would not have risen significantly over the last 3 years. (The last years stats data is not available.) It’s also quite probable, that Doctors of Sciences occupy the leading positions in the universities and scientific-research institutions: e.g. the majority of the “old” Doctors occupy the positions of the chairpersons and the lab heads in the universities. How seriously can the “old” Candidates of Sciences compete with those, who have been granted the new academic degrees of PhD recently? In the already many times cited law “On Higher Education”, the age limits for occupying university positions will not be operational till 2009²⁴ [24], which in practical terms means, that one of the main motives for embarking on the PhD system - attraction of the young specialists and reducing/stopping brain drain by creating better conditions for them, has not been fulfilled: influx of the young to the scientific elite has been postponed by at least 4 years. During these 4 years, Doctors of Sciences will have a clear edge over the Candidates of Sciences in claiming the emerged vacancies. Respectively defense of Doctorate theses will continue.

Achievement of equal competitiveness among Doctors of Sciences, Candidates and the PhD owners can be effected neither two nor four years later. Only during the rare exceptions, in the fields, where there are no Doctors of Sciences or when they, due to certain reasons, cannot participate in the competitions, will the young candidates be given a chance. In such cases, we have to take into account such criteria, as the number and the quality of the publications, participation in international projects etc.

On the other hand, equalization of the academic (scientific) degrees automatically causes lowering of the quality generally. If we take into consideration, that the greater part of the Candidatship theses (Especially the theses defended after 1991) do not really conform with the

²² საქართველოს კანონი “უმაღლესი განათლების შესახებ” მუხლი 89, პუნქტები 9,10.

²³ The State Department of Statistics of Georgia, “Education, Science and Culture in Georgia” Statistical compilation. 2002.

²⁴ Georgian Statute “On Higher Education” Article 90, paragraph 1.

new requirements, then the automatic awarding of PhD to the owners of these degrees will create certain problems. One of the possible ways out is to impose harsh criteria (The number and quality of publications, participation in international projects etc) for occupying academic positions.

The transition period will create some difficulties for the current seekers as well as their tutors and professors, who will be induced to work in parallel for developing of the new Doctorate Programs.

Recommendations

The conditions of the “aspirants” and the seekers, who are in different situations during the transition period, can be defined thus:

- Those, who have graduated from Aspirantura, passed Candidateship Minimum exams and haven't yet defended theses – have time for standing thesis till 31, December 2006.
- The seekers, who have also passed the exams, will have their term for defending thesis continued till 31 December 2006.
- Those “aspirants” and seekers, whose all official terms for carrying out theses have already expired, and who passed their Candidateship Minimum exams seven or more years ago, have to repeatedly sit the Candidateship Minimum exams and defend theses till 31 December, 2006.
- The third year “aspirants”, who are graduating from Aspirantura in 2005, shall defend theses till 31 December 2006, in accordance with the yet functional (old) rule.
- II year Aspirants, who are graduating from Aspirantura in 2006, shall defend theses till 31 December 2006, according to the old rule. In this case, due to various reasons, not everybody may be able to defend theses till the given deadline²⁵. Introduction of a teaching component for this category of seekers on certain faculties can be managed only in the third (final) year. Thus, it is unclear, according to which rule or requirements will these seekers defend theses. But at those faculties, where a teaching component will not be worked out in time, theses must in any case be defended according to the old rule (it is necessary to amend the law: one of the versions is to defend theses, as an exception, in accordance with the old rule, even after 31 December, 2006. Registration of this category of seekers, must not be a problem and it's possible to set a new deadline for them, e.g. till 31 May, 2007).
- The same is applicable to the seekers (II year), who are in the same conditions in respect with the terms.
- Whatever concerns the first year seekers, who are graduating from Aspirantura in 2007, working out of Doctoral programs, can be managed in time. It is true, that they will go through the teaching component during II-III years, but they will have to defend theses on the basis of a new Provision and in the presence of the new Dissertation Board.
- Seekers (and correspondingly Aspirantura and Doctorate students) must not be admitted to the universities in 2005-2006 academic year. Admission of the seekers is senseless, till Doctorate programs are worked out.
- Covering of the whole cycle of a PhD program, in the best case, will primarily be managed by the students admitted to Doctorate Studies in 2006. By September 2006,

²⁵ A sharp increase of those, who wish to defend theses is quite likely during this period and solution of organizational issues may become more difficult.

working out of Doctorate programs must be finished. Naturally, this can be done only in case of the relevant financing and administration.

The issue of Nostrification of the theses defended abroad is to be mentioned separately. Georgia is joining European Higher Education Area – thus acknowledgement of the degrees must happen in compliance with the Bologna and Lisbon processes²⁶.

4. The Prospects of Doctorate in Georgia

Introduction of the third cycle of higher education in Georgia, implementation of Doctorate Studies, is a very ambitious project.

Development of Doctorate programs demands enormous intellectual and financial effort. Creation of a new elite in the country is a hard and lengthy process. But the successful reform of the higher education system will bring tenfold profit to Georgia.

The main resource of our country are the educated citizens. Development of the human resources is an important premise for the country's integration in the region, Europe and generally – the world. Georgia now is in the process of finding its own place in the international community and the regional cooperation. Reform of the higher education, development of the high quality Doctorate Programs must become an important component of this process.

²⁶ The theses, which have been defended in the CIS countries are automatically acknowledged, when in the conditions of absence of bilateral agreements with the US and the Western European countries, acknowledgement of the theses defended in the above mentioned countries is tied up with some problems.

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Annex I

List of Experts, Participating in Discussions

- | | | |
|----|----------------------|---|
| 1 | Lika Glonti | Tbilisi State University;
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| 2 | Marine Chitashvili | Tbilisi State University;
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| 5 | Jemal Sologashvili | Tbilisi State University |
| 6 | Gia Jorjoliani | Institute of Asia and Africa |
| 7 | Mamuka Bitshashvili | Tbilisi State University |
| 8 | Shalva Natskebia | Georgian Technical University |
| 9 | Tamaz Kupatadze | Georgian Technical University |
| 10 | Nana Prangishvili | University for Language and Culture |
| 11 | Irine Kvatshadze | Tbilisi State Medical University |
| 12 | Shalva Matshavariani | Caucasian Business School |
| 13 | Boris Lejava | Caucasian Business School |

Annex II

Professor Barry S Parsonson, PhD

*New Zealand, Dean of Department of Social Sciences at the Waikato University, 1990-1995,
Expert of the Center for Social Sciences 2000-2005*

Social Science Doctoral Program Options: UK and USA degree models

1. Academic and organizational structures necessary to support Doctoral Programs:

Doctoral programs require administrative and academic support at several levels of the University's organization in order to meet the needs of the students, academic staff and University management. This is to ensure that admission standards and academic requirements are set and met, that student progress through the degree is monitored and recorded, that supervisors are well qualified and provide a good standard of supervision, that research is ethical and of a high standard, that examination standards are high and are met by candidates, and that graduation follows successful completion of all requirements. Because the Ph.D is the University's premier research degree, it is important for the credibility of the University that only the best candidates are selected, that selection is by merit and that the highest standards of academic program and research are met by them in order to earn this degree.

The organizational and administrative structures differ in some respects between the UK and US university systems. The main difference is that in the UK model doctoral degrees are viewed as degrees of the university as a whole, with common standards and requirements for admission, supervision and examination across all faculties and a single overarching administrative body, the Higher Degrees Committee.

By contrast, in the US, there may be variations in doctoral degree requirements across faculties and within departments, although there will be a set of generic requirements common to all. The responsibility for oversight of the doctoral degrees is likely to be spread across Graduate Schools that are made up of somewhat related faculties or departments. For instance, a Graduate School of Liberal Arts and Sciences may administer doctoral programs in Sociology, Anthropology, Psychology, History, Political Science, Philosophy, Social Work, Languages and Arts and Humanities. Similarly, a Graduate School of Science and Applied Sciences might administer doctoral programs in Chemistry, Physics, Biological, Environmental and Geological Sciences, Engineering, Computer Sciences, and Pure and Applied Mathematics.

Below are some of the essential organizational requirements for the management and quality assurance of doctoral programs. They represent an amalgam of UK and US models. The first (Example a.) outlines the Higher Degrees Committee as used in the UK, the second (Example b.) outlines the responsibilities at Faculty or School level,

which is applicable to both UK and US models and the third (Example c.) sets out the responsibilities at the Departmental level. All doctoral programs, regardless of model, rely on effective and accountable systems, clear regulations and strict implementation and the support of academic and management staff who work together to ensure high quality graduates with high quality degrees.

a. University Administration: Higher Degrees Regulation and Quality Assurance by the Higher Degrees Committee (Chair is the Vice-Rector responsible for Research)

- In UK Universities, this Committee is responsible for determining the general requirements for all Doctoral degrees, including the admission, supervision and examination standards and the quality assurance and reporting requirements at University, School, Faculty and Departmental levels.
- Establishes regulations for the degrees and receives reports from all School, Faculty and Departmental Committees concerned with Doctoral students and Doctoral degrees.
- Creates and monitors management procedures at University, Faculty and Departmental level for implementing and recording student admission, monitoring of student progress and completion of requirements, and recording the examination results and graduation of Doctoral students.
- Sets out requirements and procedures to be followed at School/Faculty and Departmental level for selection, appointment and on-going approval of Doctoral candidates' supervisors and examiners.
- Establishes and monitors the performance of **Research Ethics Committees** at School or Faculty and at Departmental levels to review and approve research proposals, including Doctoral research, involving human or animal research. The **Research Ethics Committees** report to the **Higher Degrees Committee**.
- Establishes **School/Faculty Doctoral Committees** to oversee and report to the **Higher Degrees Committee** on the admission, supervision, progress, examination and graduation of Doctoral candidates and on the performance of supervisors and examiners.
- Establishes procedures requiring the **School/Faculty Doctoral Committees** to monitor and report to the **Higher Degrees Committee** on Departmental performance in meeting and maintaining standards of candidate selection, supervision, completion of requirements by students, and examination standards.
- The **Higher Degrees Committee** has the authority of the University to examine any matter relating to the regulation and conduct of Doctoral degrees and to then report any findings to the **Academic Board**.
- Reports regularly to the University's **Academic Board**, which is responsible for the overall academic management of the University.

b. Faculty or School Academic and Administrative Structures: Management, Monitoring and Reporting by the School/Faculty Doctoral Committee: (Chair is Faculty Dean)

- Approves School, Faculty, and Departmental admission standards, degree requirements, ethical committee procedures and supervision and examination standards. Reports these to the University's **Higher Degrees Committee**.
- Administers and oversees students' admission and dissertation approval (including ethical review and validity of the research proposal), records candidates' progress in meeting degree requirements, and approves their examination and graduation. Normally, in this role the **School/Faculty Doctoral Committee** is supported by the School or Faculty administrative staff.
- Appoints members to the **School/Faculty Research Ethics Committee** and approves appointments to **Department Research Ethics Committees**. Receives reports from these Committees on their deliberations and decisions.
- Approves and appoints all supervisors and examiners nominated by the Departments (including external examiners), and monitors their performance to ensure high standards are met and maintained. Normal criteria for appointment as a supervisor or examiner must include evidence of current and active research in the candidate's chosen field of research, a history of research publication, and evidence of competence in the supervision of research students to successful completion of their projects.
- Investigates any complaints about candidate, supervisor or examiner performance and any concerning supervision or examination procedures. It reports its findings to the **University Higher Degrees Committee**, the Head of Department, supervisor(s) or examiners and the candidate.
- Approves the **Examination Committees** recommended by Departments for the assessment of any individual candidate.
- Ensures that external examiners are appropriately qualified and have expertise in the candidate's chosen field and receives the reports submitted by external examiners ahead of the candidate's examination. External examiners usually are senior academics from another University who have expertise in the discipline and the candidate's field. In New Zealand (which uses the UK model), there is always at least one international examiner from a University in another country and one local examiner from another New Zealand University. The international examiner usually submits a written report and any questions for the candidate, but does not attend the examination. The local external examiner usually attends the examination. These requirements are present because of the small number

of universities and the need to ensure that international standards of the Ph.D degree are met at all times.

- In the UK model, the **Higher Degrees Committee** or the **School/Faculty Doctoral Committee** allocates one of its members to serve the Chair of the **Examination Committee**. The Chair is responsible for ensuring that the examination is both valid and fair and for asking any questions required by an external examiner who is not present. The Chair also is responsible for recording examiners' discussion of the candidate's performance and for reporting to the **School/Faculty Doctoral Committee** and to the **Higher Degrees Committee** on the performance of the candidate and his or her examiners, as well as on the outcome of the examination.
- Under the UK model, the **School/Faculty Doctoral Committee** makes regular reports on all matters for which it is responsible to the **University Higher Degrees Committee** and to the **School/Faculty Administrative Board of Studies**.

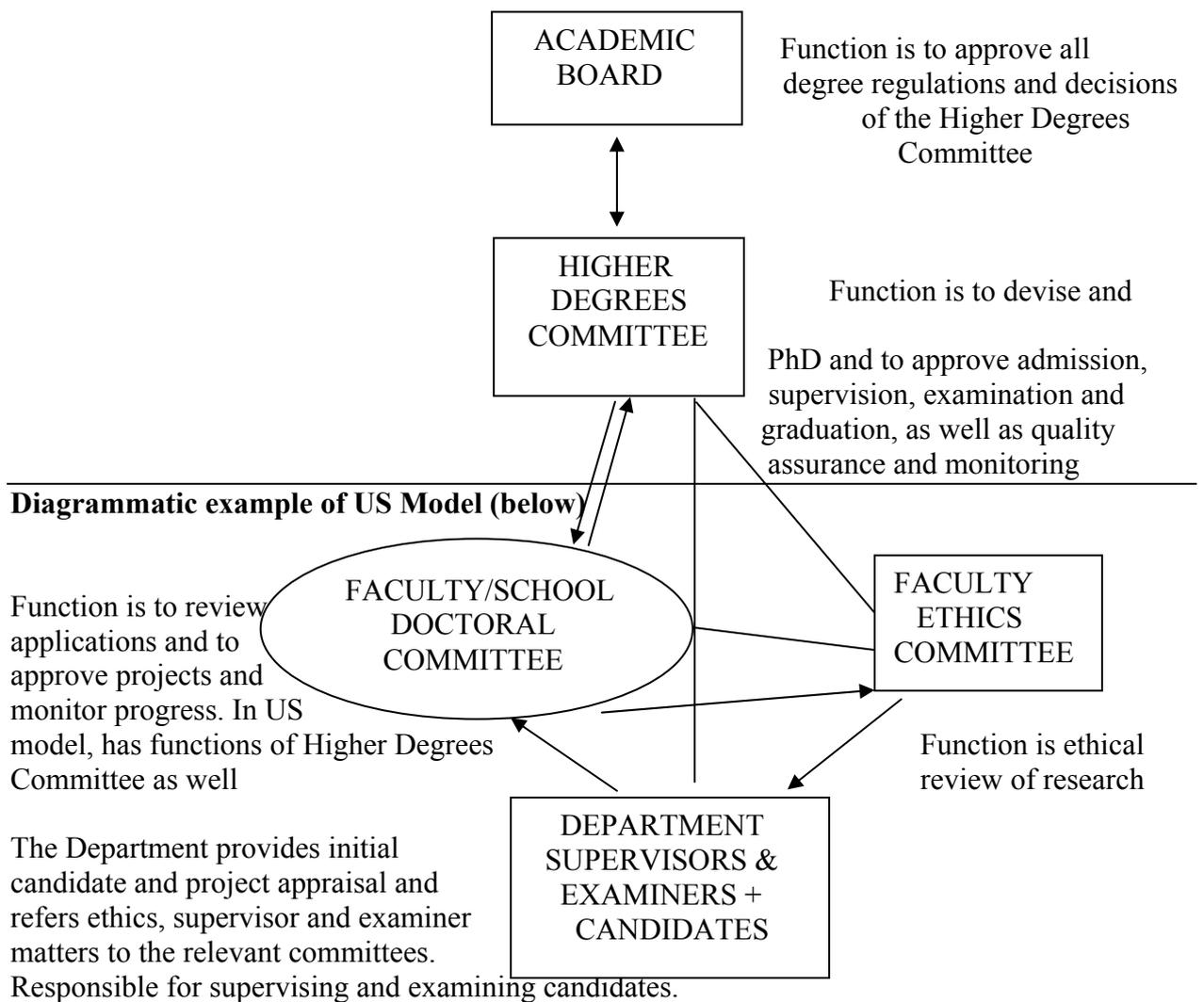
c. **Departmental Administrative Provisions: Ensuring Standards are met and maintained**

- The Head of Department and Departmental staff ensure that candidates seeking admission to the Doctoral Degree are properly evaluated, are selected on merit and meet the standards laid down by the relevant University and School or Faculty Committees. They also ensure that all admission requirements are followed and met by the Department. Admission applications are referred by the Head of Department to the either the **Higher Degrees Committee** or the **School/Faculty Doctoral Committee** for approval, depending on how the administrative lines of responsibility are organized.
- The candidate's research proposal will be referred to the Department's **Research Ethics Committee** for initial approval before being sent on to the **School/Faculty Research Ethics Committee** for final approval. The decisions of these Committees will be reported to the **Higher Degrees Committee**, the **School/Faculty Doctoral Committee**, the Head of Department and the candidate and her or his supervisor(s).
- The Head of Department approves the nomination of supervisors and the assignment of supervisors to candidates. Normally, academic staff will have interviewed candidates who want them to be supervisors and will have agreed to supervise the student ahead of this. The nominations of Supervisor(s) of each candidate are referred to the **Higher Degrees Committee** or the **School/Faculty Doctoral Committee** for approval.
- Supervisors and candidates will be jointly responsible for reporting to the Head of Department on candidates' progress and their completion of various degree requirements. The Head of Department will provide

regular progress reports to the **School/Faculty Doctoral Committee**, which in turn informs the **Higher Degrees Committee**.

- Any requests for extension or variation of the duration or content of the PhD research project must be made by the Supervisor to the Head of Department, who must then obtain the approval of the **School/Faculty Doctoral Committee** or the **Higher Degrees Committee**, whichever the regulations require.
- In the event of any disputes between a candidate and his or her supervisor(s), the Head of Department will advise the relevant Committee (either the **School/Faculty Doctoral Committee** or **Higher Degrees Committee**) and investigate and report on the matter to that Committee. If necessary, the **School/Faculty Doctoral Committee** or the **Higher Degrees Committee** will conduct its own investigation and report the outcome to the **Academic Board**, the Head of Department, supervisor(s) and the candidate.
- When the candidate has completed all degree requirements, including the dissertation, the Supervisor consults with the Head of Department over the nomination of the members of the **Examination Committee**, including external examiner(s). The Head of Department refers all nominations to the **School/Faculty Doctoral Committee** or the **Higher Degrees Committee** for approval and, in co-operation with the supervisor and candidate, sets the date for the examination. This is advised to the Committee (either **School/Faculty Doctoral Committee** or **Higher Degrees Committee**) that is responsible for appointing the Chair of the **Examination Committee** and supervising and reporting on the examination.
- On completion of the degree, the Head of Department and supervisor(s) ensure that all of the necessary documentation has been completed and forwarded to the **School/Faculty Doctoral Committee** or the **Higher Degrees Committee**, and that the candidate has been formally advised of the outcome by the University administration and has had their graduation approved.

Diagrammatic example of UK administrative model (full diagram)



The **UK Model** may include all boxes on the above diagram while the **US Model** typically only uses those administrative structures shown below the line at Faculty and Departmental level. In the **US Model**, Faculty/School Doctoral Committees (or “Graduate Schools”) have the added functions of the UK Higher Degrees Committee. The US University Senate has a similar role to the UK-style Academic Board.

2. Models of Doctoral Degree Programs:

a) The UK Ph.D Model: (This is used in most British Commonwealth nations)

- The UK Ph.D degree is purely a research degree, with no associated course work. It is essential to hold a Ph.D for entry into academic or

research careers. UK universities also award higher Doctorates other than Ph.D's, such as Doctorates of Science (D.Sc) or Literature (D.Litt), in recognition of sustained research contributions by academics or as honours to scientists or to contributors to society at large, but these are not by examination and fall outside the Ph.D model.

- For admission, applicants are normally required to have a Masters degree with an average coursework and research project pass grade of at least 75% (B+). Academic merit is the primary admission criterion.
- Admission requirements usually include the need for a good background in the candidate's chosen discipline, including theory, research design and methodology, data analysis and demonstrated research project experience (e.g., a Master's thesis or a substantial research project).
- PhD research is required to be undertaken independently by the student and the proposed research has to have a substantial theoretical basis and significant research literature to validate the project's scientific importance and relevance.
- The research project is expected to be of sufficient size and extent to take the candidate at least 2 years, and no more than 4 years, to complete.
- Normally, up to two Professors will supervise the research, at least one of these will be a senior and experienced researcher with a strong record of research and publication in the candidate's chosen field of research. The primary role of supervisors is to act as research mentors. They will encourage, challenge, and advise the candidate in regular supervision meetings, usually held once a week. They will ensure that the project is of a high standard and that the candidate is developing the skills and knowledge essential to its successful completion. They require submission of drafts of the dissertation as it proceeds and provide regular written and oral feedback during supervision sessions with the candidate. They will advise the student when the dissertation has reached a suitable standard for submission for examination.
- Examinations include review of the dissertation by the supervisor(s) and at least one other qualified member of the Departmental staff, plus at least one external examiner, usually from another University. There is also an oral examination of the candidate that is chaired by a nominee of the **Higher Degrees Committee**, usually a member of that **Committee** or of the **School/Faculty Doctoral Committee**, depending on the university's administrative arrangements. The Oral examination is not held in public, only the Chair, examiners and

candidate are present. The examination normally is scheduled for a maximum of two hours.

- Because of their status, Ph.D degrees are normally overseen by a committee of the University as a whole, rather than just by the School or Faculty. This committee is the **Higher Degrees Committee**, which is responsible for administration, management and quality assurance of all aspects of the Ph.D program across all faculties in the University. Some authority may be delegated to **School/Faculty Doctoral Committees**, which are required to report to the **Higher Degrees Committee**.
- The University ensures that all necessary quality assurance and high standards for the degree are met and maintained. It also provides the proper administrative structures to support the degree, the supervisor(s) and the candidates.
- Students undertaking Ph.D research may be supported by scholarships, research fellowships and/or the research grants obtained by their supervisors.

b) The UK Professional Doctorate Model:

- Professional Doctorates in Law (LLD), Medicine (MD) and Religion (DD) have been common in UK universities for many years. Since the 1990's they have also begun to be developed in other professional fields such as Clinical and Educational Psychology (Psy. D) and Educational administration (Ed.D). These Professional Doctorates do not prepare candidates for an academic or research career, but instead provide for the candidate to make a more significant contribution to their profession through advanced study and research.
- These degrees are not usually pure research degrees since they often include concurrent professional and practical studies at an advanced level. Typically the dissertation is focused on professional and practical issues rather than theoretical ones. Often the research component of the degree is about 67% of the content of the degree, rather than the 100% for a Ph.D. The status of Professional Doctorates is a little less than the Ph.D but these degrees are seen as valuable for higher level professional training.
- Admission standards are high, requiring similar grades at the entry level as the Ph.D, e.g., an average grade of 75% or higher in the qualifying degree. In some programs, admission also requires evidence of substantial professional or practical experience as a prerequisite. Credit towards some of the degree requirements may be given for previous post-graduate study, for professional research experience or professional practice experience. The aim of this is to

encourage senior professionals to upgrade their skills and qualifications.

- Degree requirements involve successful completion of coursework and/or practical professional development activities, and a dissertation on a professionally relevant topic. The dissertation may involve original research, but the focus is more on extending professional knowledge, applications or insights rather than on advancing a discipline's scientific and theoretical knowledge.
- Professional development and research supervision and examination requirements typically involve senior professionals in the field who are accredited to a Department as well as academic staff of the Department.
- Dissertation supervision and examination provisions are similar to those of Ph.D candidates and the degrees are overseen in a way similar to the Ph.D by the **Higher Degrees Committee** and the **School/Faculty Doctoral Committee**.

c) The US Ph.D Model:

- The US Ph.D is the premier research degree of the university. It is an essential requirement for entry into an academic or research career. The US model involves admission to graduate study at the Master's degree level and advancement, on completion of the Master's dissertation and any prerequisite coursework or assignment requirements, to Ph.D candidate status after successful completion of a "Comprehensive" examination. Once the candidate has completed the comprehensive examination they may proceed to completion of the dissertation and sitting the final Ph.D oral examination.
- Admission standards for entry to Masters degree programs vary across, and within, US universities, but most accredited programs require a high score on the Graduate Record Examination (GRE is a nationally recognized and independently administered examination with both general academic and discipline-specific questions) and/or a high grade point average (GPA) of 3.5 or 4.0 in the qualifying entry degree.
- Other criteria for admission may include the availability of a Professor willing to serve as a student's Advisor (or chief supervisor), the availability of resources to support the applicant's proposed study program, and the candidate's background and commitment to study, as well as their perceived abilities as a potential doctoral candidate. Applicants may be required to provide academic and personal references.

- Academic requirements in the Master's and Doctoral program typically involve compulsory courses in theory, research design, methodology and data analysis (including use of statistical packages). They also require participation in research seminars and completion of assignments relevant to a candidate's academic development. The latter may include literature reviews, editorial review of research manuscripts submitted for publication, assisting Professors with research for, and the writing of, text book chapters, publication of student research and conference presentations.
- In meeting the requirements for the Ph.D, the student is required to complete a certain number of "credit hours". Students sign up for their coursework, research seminar, and research project hours each semester. Typically they will undertake between 8 and 12 credit hours per week (96 to 144 credit hours per semester). A Ph.D may require completion of 500 credit hours, compared with a Masters degree at 200-250 credit hours. The Department and Faculty (Graduate School) administration maintains records of completed courses and credit hours to ensure that students meet these requirements.
- Admission to **Ph.D Candidate** status is achieved by successful completion of the "**Comprehensive**" examination. The method and form of this examination varies across Departments and Faculties. It may involve completion of up to six written papers on both general and specific topics in the candidate's discipline, or by oral examination on the six examination topics or on a major review of research literature. Examination topics are set and marked by the candidate's Supervisors and approved by the Department's Doctoral Committee. In some Departments, there are lists of approved topics from which a candidate may select those on which she or he wishes to be examined. In this case, the candidate's Advisor (chief supervisor) usually has to approve her or his topic selections ahead of time.
- Each candidate's Advisor takes primary responsibility for the supervision of his or her studies and research. The Advisor makes sure the candidate completes all degree requirements and signs off all requirement completions. She or he advises the student on the selection of coursework and research topics and holds regular weekly meetings with the student to monitor progress, discuss ideas, and provide academic challenges for the candidate as they progress through the Graduate program. The Advisor maintains on-going contact with the candidate during dissertation research and will receive, read and provide oral and written comment on dissertation drafts as the candidate's research write-up progresses. The Advisor

will inform the candidate when the dissertation is of a suitable standard for examination and arrange the final oral examination.

- Before being allowed to sit the final oral examination, the Department has to ensure that the candidate has completed all degree requirements and advise the **School/Faculty Doctoral Committee** (or some equivalent body, which may be titled the “**Graduate School**” or “**College**” in many US Universities).
- The Ph.D oral examination is heard by an **Examination Committee** approved by the **School/Faculty Doctoral Committee**. The Examination Committee is normally chaired by the Advisor and includes up to four other members of the Department’s Professorial staff and at least one external examiner, either from another Department of the University which has a related discipline or, less commonly, from a similar faculty in another University. Doctoral oral examinations may be open to the public, but questions from the public can only directed at the candidate by persons holding a Ph.D degree and with the permission of the Chair.
- The duration of the examination is normally a maximum of two hours. At the end of the examination, the Examination Committee deliberates and the decision is recorded by the Advisor, signed by all the examiners, and sent to the **School/Faculty Doctoral Committee** for ratification and graduation purposes. In many US Universities, the **Dean of Graduate Studies**, who chairs the **School/Faculty Doctoral Committee**, is empowered on behalf of that Committee to approve the completion of the degree and the candidate’s right to graduate.
- Students undertaking Ph.D research may be supported by scholarships, research fellowships and/or the research grants obtained by their supervisors.

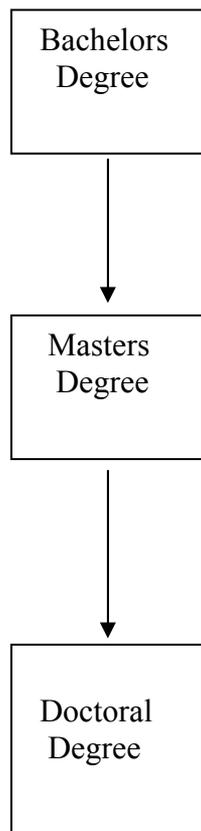
d) **The US Professional Doctorate Model:**

- As in the UK, the US Professional Doctorates are less focused on original research and theoretical contributions to the scientific advance of a discipline. As a result, they are not a preparation for an academic or research career. Rather, they provide opportunities for higher level study which develops advanced professional knowledge and related practical skills. Many US Doctoral Programs in fields such as Clinical and School Psychology (Psy.D), Education (Ed.D), Social Work (D.SW), Nursing (D.N) Law (J.D) and Medicine (M.D) offer Professional Doctorates as well as Ph.D degrees. The Professional Doctorate often has a different emphasis on research than the Ph.D and contains a higher proportion of coursework and professional practice requirements.

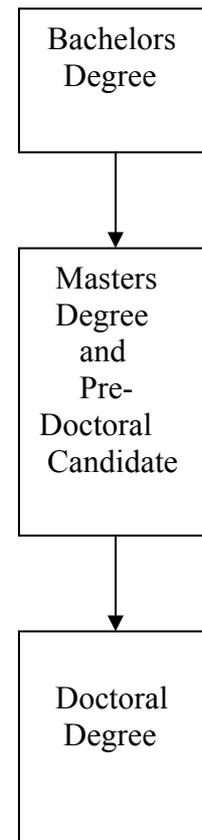
- Admission standards may be similar to or slightly lower than those for a Ph.D, and will place more emphasis on commitment to professional development, whereas the Ph.D's primary goal is preparation for an academic or research career. Credit toward the degree requirements may be given for prior professional experience and research or for practical skills developed during professional practice, similar to that in the UK Professional Doctorate.
- The provisions for supervision and examination are essentially similar to those for the Ph.D, but senior professionals from the candidate's field accredited to the Department may also be involved in practicum supervision, professional training, and examination, along with the Department's academic staff.

Diagrammatic representation of Doctoral Degree pathways

UK Doctoral Degree Sequence



US Doctoral Degree Sequence



Summary and Conclusions:

Development of Ph.D programs requires that a University put in place administrative and quality assurance procedures at all levels that ensure that candidates meet rigorous and internationally valid standards of performance. To achieve this outcome, quality assurance

mechanisms for setting, monitoring and reporting of the procedures and standards of admission, supervision and examination are essential. Research needs to be subjected to ethical review and to be of demonstrable validity, theoretically and methodologically sound, and capable of contributing to the advancement of knowledge. One important component of this is the provision for external examination of candidates as part of the assessment process. External examination by credible and internationally recognized academics allows comparison with international standards to be part of the candidates' evaluation and quality assurance process. This is of particular importance in small countries with a small pool of experts in a given field. It adds greatly to the credibility of an academic institution and its graduates by demonstrating a willingness to be assessed against international standards.

Obviously, there are differences between the Ph.D traditions in the UK and the USA. The UK model is purely a research degree, without coursework, and entry normally requires a Master's degree as a prerequisite. At the point of entry into the Ph.D program, the UK candidate begins their doctoral research and it is the sole focus of their study for two to four years, with many candidates taking up to six years to complete. Management of the degree usually is by a Higher Degrees Committee which includes representatives from all of the Schools or Faculties and which oversees the degree on behalf of the University's Academic Board. School or Faculty Doctoral Committees usually provide initial candidate, supervisor and examiner screening and monitoring roles on behalf of the Higher Degrees Committee. Supervisor approval and monitoring has to be carefully controlled, as over a four year research span, there may emerge differences and difficulties between candidates and supervisors. Ongoing quality assurance measures have to be in place to ensure that both the candidate and supervisor(s) are functioning appropriately. External examination is an essential component of the quality assurance process in UK and British Commonwealth Universities. External examiners may be suggested by a candidate's supervisors and all arrangements made for external supervision are through the Higher Degrees Committee.

By way of contrast, in the USA, the entry to graduate study is at the Master's degree level and the student completes coursework, research and other academic requirements as part of a progression towards Doctoral candidacy. It is only after the completion of the Comprehensive examination that the student is considered a Doctoral Candidate and is able to complete their Ph.D research and take the Doctoral oral exam. Overall, the Master's and Ph.D together is expected to take a candidate a minimum of four to five years, although most take longer than two years to complete the Ph.D requirements. Departmental Committees have more autonomy than in the UK model and there often is no overall Higher Degrees Committee, this role being undertaken by School or Faculty Doctoral or Graduate School Committees. External examination is usually limited to the presence of a staff member from another Department in the University. The external examiner usually is selected by the candidate's Advisor, with final approval given by the Graduate School Committee. This use of examiners from within the university seems to provide a lower level of quality assurance than the UK model, which involves actual external academic scrutiny.

The transition from study at Master's level to study at Ph.D level is less distinct in the US model. At any given time a candidate may be engaged in meeting coursework requirements, beginning Ph.D research or taking comprehensive examinations. The only clear point of transition from Masters to Ph.D is once all coursework and academic requirements, including the comprehensive examination, have been met and the student is defined as a Ph.D candidate. Different students will move through these various requirements at varying paces and the process of monitoring progress and ensuring that requirements are met is more complex than for the UK model. This can create problems of quality assurance and places a heavy reliance on the competence and accountability of Departmental staff acting as Advisors. There is often an assumption that professors volunteering as advisors are competent, but this is not always the case and the system can be slow to respond to failures in performance.

One advantage of the US model is the flexibility that comes from the inclusion of coursework and academic requirements as well as the dissertation research itself. This approach allows for candidates to have a more extensive and comprehensive preparation for an academic or research career. It allows them to develop, under careful supervision, all of the requisite skills for their future career. This can happen in the UK pure research model, but it is more haphazard and depends very much on the skills and commitment of the candidate's supervisor(s) to helping with career development and skills training.

The UK and US Professional Doctorate models are essentially similar. They are primarily intended to provide for development of high levels of professional skill and knowledge, but with a somewhat lower emphasis on research, particularly original scientific research. These models may lie outside of the current considerations in development of Doctoral degree programs in Georgia, but at some future time, as the University system expands its interest in providing applied training at the highest professional levels in fields such as Counselling or Educational Psychology, Urban Planning, Environmental and Resource Development, Law, etc., provision for such degrees may need to be made. There is increasing demand in many western countries for the higher levels of professional training and development that professional doctorates offer. This pressure comes from the professions, from employers, and from potential candidates. It is therefore likely that Georgian Universities soon will be encouraged to consider similar options.