

CAREER DEVELOPMENT MANAGEMENT AT DOCTORATE

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Abstract

The purpose of this paper is to introduce the importance of professional and transferable skills of the doctoral candidate, stimulate discussion about the impact and effective management of the doctorate in a context of reforms in the policies and processes of third-level higher education.

Training of professional skills gives some discussion in the field of doctoral studies in relation to the availability and acquisition of graduate skills at the previous levels of higher education. It is assumed that the applicant in a specific area should already have the set of skills that will be fully applicable to doctoral studies and will be satisfying for the full realization of the graduate's professional qualifications.

A doctorate graduate must have adequate professional skills in the areas of research, education, cooperation and team work, innovation, etc. and therefore should have the skills that can be transferred from science/research to pedagogy/education or from pedagogy/education to leadership. Thus, transferable skills are universal, and are an important tool for all aspects of the doctor's professional realization. And this is the reason why doctoral students are mostly trained in transferable rather than vocational/professional skills.

It is important to investigate the awareness of teachers and students at the universities related to the necessity to enhance creativity within and by academic community. Therefore, today's educational programs are considered to be competitive, with the result that not only "academic" but also "creative skill" graduates. In this regard, special emphasis should be placed on the student's not formal but productive individual work, with the aim of developing the creativity, innovation which is one of the requirements of the current Bologna process.

At present, universities are facing a challenge to revise the direction of providing educational services in such a way as to reinforce the employer-HEI bridge and the dynamic changes taking place in the labor market by taking into account. The involvement of future employer into the management processes of doctorate and career development is important.

A post-graduate student - PhD must demonstrate leadership skills in a working environment, directing the teamwork of large or small groups of employees to achieve effective outcomes. And if the traditional administrator guided the process in accordance with established organizational standards and norms, the doctor with a degree would show creative approaches here, trying to transform and develop the team management process, using his high professional qualities.

Keywords: Doctorate, career management, professional and transferable skills, doctoral candidate leadership

Introduction

Doctoral research plays a crucial role in driving innovation and growth of nation states, and is a significant contributor to national and international knowledge generation and research outputs [1] but there is a striking absence of systematic research into the multidimensional impact of the doctorate. Through its concern with doctoral impact, this paper attends to the growing preoccupation in higher education policy with the performance, outcomes and returns on public investment in research. Around the world, government and private organisations are investing considerable time, energy and resources into identifying and tracking the social and economic contributions and impact of research and the doctorate [2].

The most popular academic degree in the World is Doctor of Philosophy (PhD) after the completing of doctorate. Here the word "philosophy" should be interpreted broader. In ancient Greece, that word was interpreted as "love to knowledge" that can be applied in any current academic field. Moreover, at present the doctorate (aspirantura) in Armenia is based on the list of aspiring professions inherited from the Soviet Union, which is extremely detailed and coded not only by fields, but also by sub-fields. The use of such a practice was aimed at grouping innovations in science according to scientific narrow directions, coding, recording, archiving and putting it into practice in the state of demand.

Indeed, nowadays, this practice should be considered as inappropriate and not applicable as in our reality the state is not the only beneficiary in the field of research, and innovative demand is shaped not only from the "top" in a centralized manner, but in the knowledge market. Therefore, it is time to give up detailing of both the coding and detailing of doctorate specializations. Moreover, sometimes, in the case of the thesis/dissertation defense, the experts and scientific councils find it difficult to group them according to the codes of related professions.

Training of professional skills gives some discussion in the field of doctoral studies in relation to the availability and acquisition of graduate skills at the previous levels of higher education. It is assumed that the applicant in a specific area should already have the set of skills that will be fully applicable to doctoral studies and will be satisfying for the full realization of the graduate's professional qualifications.

Professional and Transferable skills

In our previous papers [3, 4], we have already discussed the need for education in doctorate aimed at developing the professional skills and abilities of the doctoral candidate. In this case, there is a question as to what additional skills the doctor/PhD needs, which he/she did not previously have at the Master's or Bachelor's level.

To answer this question, first you need to understand the peculiarities of the professional skills program, and why the Master's degree is the pre-qualification stage of doctoral studies. The thing is that without "master's pre-training" it would be difficult to obtain research, pedagogical or managerial skills in doctoral studies, as first of all, the doctor-applicant should know them somehow and only then, bring in a creative approach to transferable skills.

A graduate of a third level higher education should, in contrast to the master's qualifications, be highly motivated. At the same time, the acquisition of a specialist's skills is widened parallel to the increase of the educational level (see Figure 1). A doctorate graduate must have adequate professional skills in the areas of research, education, cooperation and team work, innovation, etc. and therefore should have the skills that can be transferred from science/research to pedagogy/education or from pedagogy/education to leadership.

Thus, transferable skills are universal, and are an important tool for all aspects of the doctor's professional realization. And this is the reason why doctoral students are mostly trained in transferable rather than vocational skills (Figure 1)

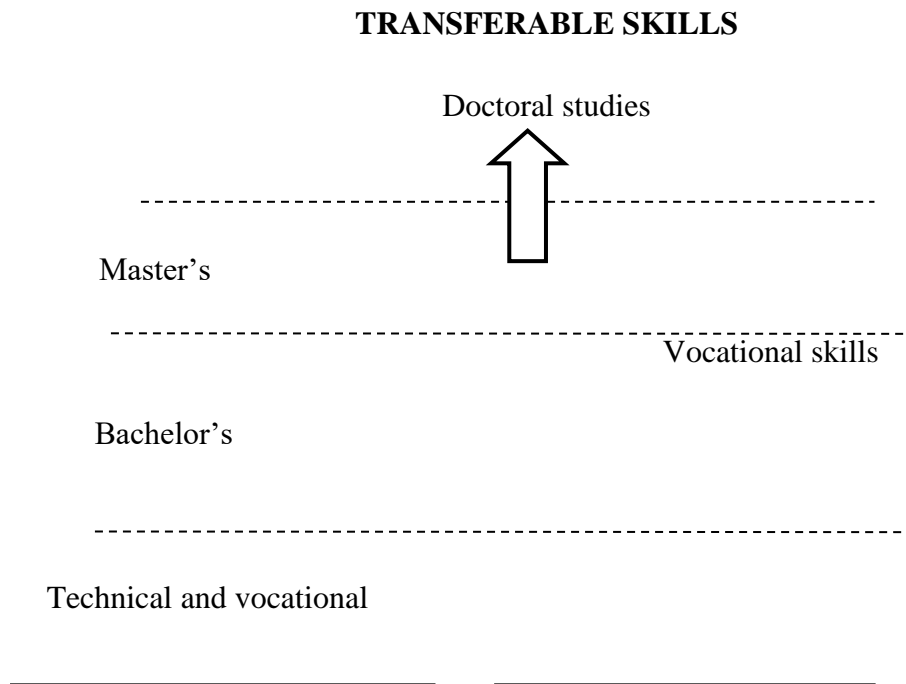


Figure 1. The process of transferring skills at different degree levels

The list and scope of the doctoral thesis/dissertations are different in universities, but in general they are summarized in the following groups:

Problem-solving skills:

- Definition of the problem and the solution curve;
- Generating creative ideas;
- Development of a wide range of information;
- Research source analysis;
- Propagation of scientific hypotheses.

Individual and leadership skills:

- Organization of group discussions and decision-making;
- Self-assessment and self-organization skills;
- Grants and Grant Management Skills;

- Developing motivation environment for project implementation;
- Ensuring feedback and timely communication;
- Implementation of conflict skills in group work.

Project management and organization:

- Conducting uninterrupted implementation of the program;
- Implementing flexible managerial decisions in changing situations;
- Searching alternative financial sources;
- Harmonization of negotiation skills;
- Mapping of targeted access targets.

Research Creative Skills:

- Skills for developing and presenting scientific novelty,
- Development and presentation of innovative ideas and hypotheses;
- Skills in publications and publications in scientific circles;
- Uninterrupted development of research tools;
- The culture of participation in scientific and research debates.

Working skills:

- Undertaking guidance;
- Organization of effective work in the conditions of end-time and high quality standards;
- Demonstration of ideas about the introduction of ideas and overcoming obstacles;
- Providing creative approaches to work duties;
- Conducting in-depth analysis of the access to employment outcomes;
- Career management;
- Ensuring intellectual property protection;
- Maintaining copyright in inventions and rationalization proposals.

If we compare the professional skills of the doctor with the general professional skills of the person with the higher education presented in the previous paragraph, then it will become clear that the doctorate differs from the previous education levels by providing the graduate with the extracurricular skills (Figure 2), which form the basis of personality attributes such as:

- High level of self-governance;

- Create high level of activity;
- Flexibility of decision making;
- Quality of research analyzes.

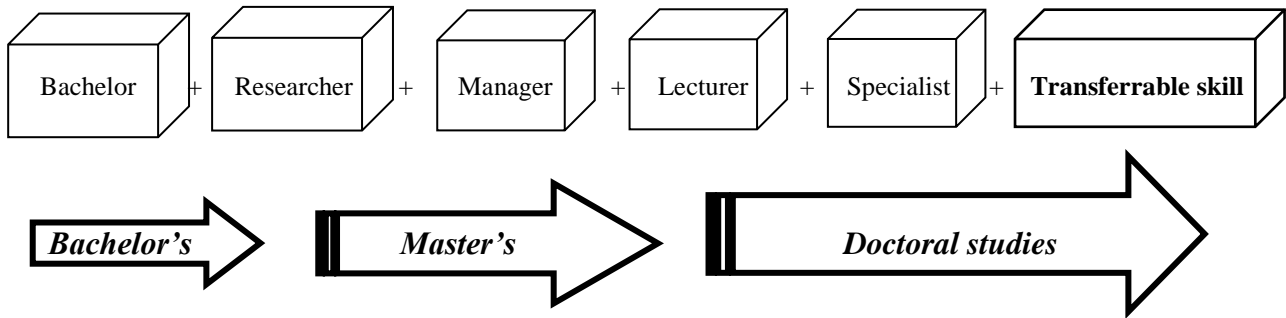


Figure 2. Quality of Doctoral Qualifications: the formation process at the degrees of higher education

The guideline for the competitiveness of vocational education should also be considered as the formation of creative thinking among students. The experience shows that the Bachelor's or Master's degree programs in Armenia are devoid of innovation. In some parts of the student and academic staff, mechanical perceptions of the educational process are still dominant when the student is mainly viewed as transferring knowledge through a lecture and then testing it during the exam.

Consequently, in this case, some of the faculty and student community still pursue an educational process, not as a process of thinking, but as a knowledge, a form of learning. However, within the capabilities of today's university graduate, not only professional knowledge but also the ability to manifest itself in creativity and innovation are highlighted.

It is important to investigate the awareness of teachers and students at the universities related to the necessity to enhance creativity within and by academic community [5]. Therefore, today's educational programs are considered to be competitive, with the result that not only "academic" but also "creative skill" graduates. In this regard, special emphasis should be placed on the student's not formal but productive individual work, with the aim of developing the creativity, innovation which is one of the requirements of the current Bologna process.

Career Development Management and Leadership

The academic partial education of the employer is not a priority for the graduate. In addition to professional knowledge, dimensional emphasis is placed on balanced, oriented, well-behaved, communicative, timely and fundamental decisions in the workplace. Therefore, at present, universities are facing a challenge to revise the direction of providing educational services in such a way as to reinforce the employer-HEI bridge and the dynamic changes taking place in the labor market be taking into account.

One of the peculiarities of education in doctorate is the length of study. During the three or four-year doctoral training, substantial changes are taking place in the labour market, and the university student's curriculum is definitely "curtailed" during this period. HEIs should be interested in employers' involvement in the field of education and should be motivated by the fact that graduates choose optimistic students to graduate with a job offer. The employer, being well-informed about the training process, should take an active part in not only improving the curriculum, but also in the field of educational services. The possible ways of its implementation are to introduce the best students to encouragement scholarships, to organize internships, and to support the formation of teaching studios, learning centers and laboratories.

On the other hand, employers gradually realize that it is more profitable to spend their share of resources in implementing educational programs in the HEI/universities rather than to go through the re-training of the post-graduates. Taking advantage of this situation, a graduate of a doctorate must work closely with employers to work immediately after graduation and receiving the PhD degree.

After receiving the Master's degree, the PhD applicant must be convinced that this particular specialty will be required in the labor market. In this regard, the current focus of the Bologna process focuses on the education of targeted learning outcomes when education is fully addressed to the labor market requirements.

Studies show that among the reasons for the unemployment in higher education in the EHEA countries, besides the economic crisis, an important reason can be the lack of skills and abilities of a specialist in the learning environment to meet the business requirements [6]. In this context, universities should strive to attain the learning outcomes of the skills and abilities that are required at the next levels of higher education.

The problem is not just that the post-graduate student cannot have a wide range of skills or a comprehensive frame of capacities, and hence, not being demanded by the employer. Practically there are few cases when a wide range of professional skills gained during education does not satisfy the employer because it is "overcrowded" and is not applicable in practice. It turns out that in this case, the PhD degree is "super-qualified" by employers, and as a result they do not go to work. The study shows that the percentage of unemployed post-graduates from the Western European universities, being "overqualified", is 14-35% [7].

In this regard, interesting solutions are offered by Swedish universities. Thus, the Doctorate of Stockholm Technological University is organized in two stages. Graduates of the first stage, studying for two years, receive a degree and can work in research institutions serving the industrial market. However, if they want to teach and conduct research at universities, then they must study in doctorate for two more years, defend their dissertations and have PhD degree.

There is no such flexibility in the organization of labor-oriented doctoral studies in the Republic of Armenia. Moreover, according to official statistics, in the past few years, the highest number of unemployed persons has higher education. The level of their professional skills and capacities are rated "highly productive", but they simply do not get job offers by employers.

In this regard, it seems that in spite of some achievements of the Bologna Process in Armenia, the implemented reforms are mainly related to the structural characteristics of higher education and, in general, have not yet turned out to the content and quality of the educational programs. The fact that the education system generally remains "cut off" from the labor market and does not fully account for employers' demands. Professional education programs are often overwhelmingly focused on the skills and capabilities required for graduates to be taught in non-homogeneous subjects, or do not include up-to-date items that would be developed the graduates' capacities to meet the employer's requirements.

The human factor is evident in the organization of educational process. There are plenty of examples when there is enough information, opportunities, and students and professors do not use or want to use them. Consequently, universities should be urgently required to organize education based on outcomes in specific educational programs, clearly defining the scope of the subject and how it relates to the scientific potential skills of the doctoral candidate.

In this way, the curriculum will be able to load "superfluous" items that overpower the curriculum, with new subjects as a consequence of the labor market. Targeting of outcome

results will greatly increase the performance of the reform in the higher education system of Armenia.

An important indicator is the duration of a getting a job, after graduating from the university, which is approximately is 4 months in the EHEA (Figure 3).

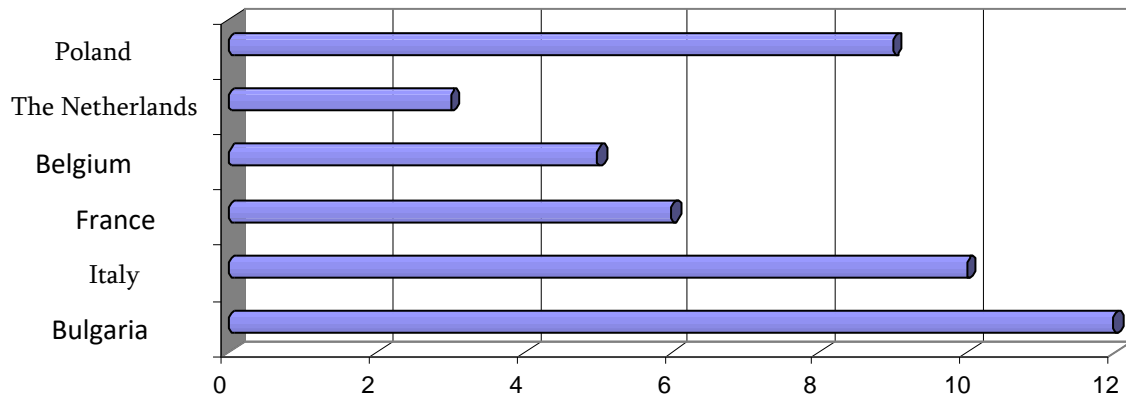


Figure 3. The duration of graduates' employment after graduating the university (months)

Graduates of the third level higher education in the Republic of Armenia see their career growth in the university system, supplementing the researchers/professors and teaching staff of universities. Only a small number of them continue their careers in scientific research institutes or government agencies after the dissertation defense. The reason is that the salary difference between the educational qualifications in our country is not so significant, and people with an academic degree prefer teaching.

However, graduates in the international level do not avoid working in the industrial market because employers estimate them by their leadership professional skills.

The emphasis on the importance of the leader is now integrated with the internal development of science. It is characteristic that most of the scientists necessarily include the understanding of the manager and the leader in their conclusions. According to the leading authors, the manager is effective only within the framework of the existing concepts, he can even improve the principles and rules, behavioral norms and standards of the given paradigm, but only the leader capable of changing the paradigm to provide a transition and development. In the situations that require change, leaders succeed, not the managers.

According to traditional interpretations of "manager" and "leader", the first is the official head of the organization, relies heavily on its high position in the internal government pyramid, exercises legal levers of influence, and the latter is an unofficial. It directs people through the reputation, virtuosity and respect they enjoy among the members of the organization, primarily of good-gracious leverage.

Consequently, a post-graduate student - PhD must demonstrate leadership skills in a working environment, directing the teamwork of large or small groups of employees to achieve effective outcomes. And if the traditional administrator guided the process in accordance with established organizational standards and norms, the doctor with a degree would show creative approaches here, trying to transform and develop the team management process, using the high quality of his profession.

Conclusion

Thus, the efforts of leading universities to ensure the competitiveness of doctoral studies are not limited to ensuring the attractiveness of doctoral education. In case of having a competitive doctorate, the science market is activated, scientific innovations are addressed, they are found in practical application by consumers, and significantly contribute to the socio-economic development of the country.

Therefore, at present, conceptual changes in higher education must be made in Armenia, career management in all the levels must be improved.

Doctorate should not be seen as just a career development for a person. Receiving an academic degree, it is necessary that the doctoral candidate bears a moral-psychological obligation for the trajectory of his career. The third level of higher education shapes a person both as an intellectual and public figure, and as a scientist. If we manage our doctorate well, we will have good lecturers at universities and creative scientists at research institutions. Those who have obtained an academic degree will be able to easily introduce innovations both in the spheres of education/research and economic development of the country.

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Համառոտագիր

Սույն հոդվածի նպատակն է ներկայացնել դոկտորանտի մասնագիտական և փոխանցելի հմտությունների կարևորությունը, խթանել դոկտորանտուրայի արդյունավետ կառավարման ու ազդեցության վերաբերյալ քննարկումները՝ երրորդ մակարդակի բարձրագույն կրթության քաղաքականության և գործընթացների բարեփոխումների համատեքստում:

Մասնագիտական հմտությունների ուսուցումը դոկտորանտուրայում որոշակի քննարկումների տեղիք է տալիս՝ կապված բարձրագույն մասնագիտական կրթության նախորդ մակարդակներում արդեն իսկ շրջանավարտի հմտությունների առկայության հետ: Ենթադրվում է, որ կոնկրետ մասնագիտությամբ դիմորդ-մագիստրոսը պետք է որ արդեն տիրապետի հմտությունների այնպիսի գործիքակազմի, որը ամբողջովին կիրառելի կլինի դոկտորանտուրայում և կրավարարի հետագոտող շրջանավարտի մասնագիտական ունակությունների լիարժեք իրացմանը:

Դոկտորանտուրայի շրջանավարտը համարժեք մասնագիտական հմտություններ պետք է ցուցաբերի գիտական, կրթական, կառավարչական, նորարարությունների ընդհանրացման ոլորտներում և հետևաբար պետք է տիրապետի այնպիսի հմտությունների, որոնք փոխանցելի կլինեն գիտությունից դեպի մանկավարժություն կամ մանկավարժությունից դեպի առաջնորդություն: Այս է պատճառը, որ դոկտորանտուրայում առավելապես ուսուցանվում են փոխանցելի, քան մասնագիտական հմտություններ:

Այսօր մրցակցային են համարվում այն կրթական ծրագրերը, որոնց վերջնարդյունքներով ձևավորվում են ոչ միայն “գիտակ”, այլև ‘ստեղծարար հմտություններով’ շրջանավարտներ: Այս առումով մասնագիտական կրթական ծրագրերում ներկայումս մեծ ուշադրություն պետք է դարձվի ուսանողի ոչ թե ձևական, այլ արդյունավետ անհատական աշխատանքի վերջնարդյունքներին՝ նպատակ ունենալով սովորողի մոտ զարգացնելու ստեղծարարությունը, նորարարությունը և ինքնադրսևորումը, որը Բոլոնիայի ներկայիս գործընթացի պահանջներից մեկն է:

Ներկայումս համալսարանների առջև խնդիր է դրվում վերանայելու կրթական ծառայությունների մատուցման ուղղությունները այնպես, որ ամրապնդվի “գործատու-բուհ” կամուրջը, հաշվի առնվեն աշխատաշուկայում տեղի ունեցող փոփոխությունները: Կարևորվում է ապագա գործատուի ներգրավումը դոկտորանտուրայի կառավարման և կարիերայի զարգացման գործընթացներում:

Դոկտորը աշխատանքային միջավայրում պետք է ցուցաբերի առաջնորդի հմտություններ՝ ուղղորդելով աշխատողների մեծ կամ փոքր խմբերի թիմային գործունեությունը՝ արդյունավետ կերպով նախանշված արդյունքներին հասնելու համար: Եթե ավանդական կառավարիչը այդ գործընթացը կուղղորդեր նախօրոք սահմանված չափանիշներով և նորմերով, ապա դոկտորի աստիճան ունեցող առաջնորդը այստեղ ստեղծարար մոտեցումներ կցուցաբերեր՝ փորձելով վերափոխել և

գարգացնել թիմային կառավարման գործընթացը, օգտվելով իր մասնագիտական բարձր նրակներից:

Հիմնաբառեր և բառակապակցություններ. Դոկտորանտուրա, կարիերայի կառավարում, մասնագիտական և փոխանցելի հմտություններ, ասպիրանտի առաջնորդություն

УПРАВЛЕНИЕ РАЗВИТИЕМ КАРЬЕРЫ В ДОКТОРАНТУРЕ

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Аннотация

Рассмотрено значение профессиональных и передаваемых навыков докторанта/аспиранта, стимуляция обсуждений эффективного менеджмента и влияния докторантуры в контексте политики и реформ процессов третьего уровня высшего образования.

Изучение профессиональных навыков в докторантуре служит поводом для дискуссий, связанных с наличием умений, приобретенных на предыдущих уровнях высшего профессионального образования. Предполагается, что претендент-магистр по конкретной специальности уже должен владеть таким инструментарием навыков, которые будут применимы в докторантуре и достаточны для реализации профессиональных навыков исследователя.

Окончивший докторантуру специалист должен проявлять профессиональные навыки в научной, образовательной, управленческой сферах, а также в сфере инновационных обобщений, следовательно должен обладать такими навыками, которые могут передаваться от науки к педагогике или от педагогике к лидерству. Именно поэтому в докторантуре изучаются преимущественно передаваемые, а не профессиональные навыки.

Конкурентными сегодня считаются учебные программы, которые в результате сформируют не только “знатока”, но и “носителя творческих навыков”. В этом смысле в настоящее время в образовательных профессиональных программах большое внимание должно уделяться не формальным, а эффективным конечным результатам индивидуальной работы, имея целью развитие у учащегося созидющего, инновационного подхода и самоутверждения, что является одним из требований нынешнего Болонского процесса.

В настоящее время перед университетами ставится задача пересмотра путей предоставления образовательных услуг таким образом, чтобы укрепить мост “работодатель – вуз” так, чтобы учитывать происходящие на рынке труда изменения. Важное значение придается вовлечению будущего работодателя в процессы управления докторантурой и карьерного развития.

В рабочей среде доктор должен проявлять искусство руководителя, культивируя командную деятельность больших или малых групп работников для эффективного достижения предначертанных результатов. Если традиционный менеджер направлял бы этот процесс по заранее намеченным параметрам и нормам, то руководитель со степенью доктора проявит здесь творческий подход, пытаясь преобразовать и развить процесс командного управления, используя высокие профессиональные навыки.

Ключевые слова и выражения: докторантура, аспирантура, управление карьерой, профессиональные и передаваемые навыки, лидерство докторанта