

ՀԱՂՈՐԴՈՒՄՆԵՐ REPORTS

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EFFECTIVE TEACHING STRATEGY IN DOCTORAL PROGRAMS

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The organization of doctoral education has always caused problems at universities. In doing research, doctoral candidates were so unwilling to attend lecturing process and various modules examinations; mostly they were eager to finalize the research and move on to final defense. On the other hand, the doctorate is presented not only as research, but also as an educational process, and consequently needs the implementation of effective teaching strategy.

This conflict of interests is the important terms of PhD* or doctoral programs accomplishment of modern practice. However, it is necessary for PhD students to be aware of the fact, that educational modules, included in the doctoral programs,

* PhD stands for “Doctor of Philosophy” is an abbreviation of the latin term, (Ph)ilosophiae (d)octor. The word “philosophy” here refers to its original Greek meaning: philo (friend or lover of) sophia (wisdom).

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should not be considered as just ineffective and unnecessary “waste of time” as they contribute to the formation of competitive learning outcomes during PhD study period.

This article discusses the effective approaches of PhD programs to teaching strategies, that are focused on the formation of outcomes, such as interpersonal and leadership skills, project management and organization research, information management, self-management and career development.

Nowadays, it is highly important to remodel the educational strategy, targeted at PhD student's acquisition of transferable skills, through avoiding unnecessary educational theoretical modules and academic training pressure. For this reason, the paper analyzes various surveys in regard to teaching strategy in PhD programs within Bologna educational sphere and offers recommendations aimed at the development of educational process structuring on the third level of higher education. The problems of organization process of doctoral education in Armenia are especially highlighted, based on Salzburg principles. The article also shows how the **Effective Teaching Strategy** can be implemented in PhD Programs.

How the Doctoral Studies Is Organized at the Universities of Armenia

At present Armenia's higher education system reforms face serious challenges in the context of doctoral education. Third level education within the Bologna Process associated with the Salzburg principles, currently is not completely applied. Moreover, Armenia is still under the influence of the post-graduate education approaches, inherited from the Soviet Union, and, as a result, the assessment of outcomes of a qualitative researcher, aimed at the labor market, is not of importance.

Traditionally, Armenia is considered a country with higher level of educated population and a variety of scientists. But even under these circumstances, the implementation of research and practice activity of researchers has not made a serious impact on social and economic development of the society. Functions of several scientific organizations the operation of which is mostly based on public financing sources, should be represented with effective research outcomes . However, this is not the case, the main reasons for this situation are related to ineffective organizational issues of PhD education in Armenia.

Investigations show that currently most of the doctoral students in Armenia are¹:

- educated and trained too narrowly,
- lacking key professional skills,
- ill- prepared to teach,
- taking too long to complete their degree or not complete it at all,
- having an overly long transition period from PhD completion to stable employment.

The educational environment in doctoral studies in Armenia is not competitive yet. There are linkages between PhD programs and labor market. Furthermore, the research programs are not strongly related to contemporary demands of economic development, and only a few of them are functioning, based on contracts between universities, research centers and business organizations. As a result, mainly a process by format is taking place “creating science for scientific necessities”, but not “science for social and economic development”. Besides, the absence of science market does not give opportunities for commercialization of research results, finding stable financial sources for the development of PhD programs, and presenting competitive doctoral study programs in Armenia.

What Is the Current Level of Salzburg Principles Implementation at the Universities?

Although post-graduate education at Armenian universities has traditionally been operating, based on the principles of Soviet “aspirantura”, they are applied on inertial motion. Thus, research block still dominates in them, but educational block is still in the phase of formation. Previously, candidates did not need to earn academic credits and they were generally overwhelmed by research work. However, now a post-graduate student has to earn academic credits not only from research sphere, but also from educational block, regularly attending courses. In current situation **Joint doctoral programs are not formed**, there is no framework of providing educational services, which is one of the most important Salzburg principles.

Traditionally, “aspirantura” was not in close cooperation with the labor market. Post-graduate students used to perform research work without being involved in production, and as a result, there were no commercial orders from

¹ **Tshuguryan A.** “Challenges in Post-graduate Education Organization in Armenia”, Messenger of Armenian State University of Economics, 3(39), Yerevan, 2015, pp. 152–154.

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the sphere of production and service practice fields. The situation is similar in post-graduate studies functioning at Armenian Universities, which do not have close relationship with applied economy; they were deprived of employers' orders and private financial inflows. It turns out that post-graduate studies are financed only by public means, i.e. from the State budget, which is not enough for stable funding: and this is considered to be one of the most important Salzburg principles.

In case of post-graduate studies, **academic freedoms** are still constrained which is especially highlighted during the process of preparation and defense of dissertation. Post-graduate education system does not have full academic freedom to approve theses, as final titles of themes are approved by the scientific councils of universities.

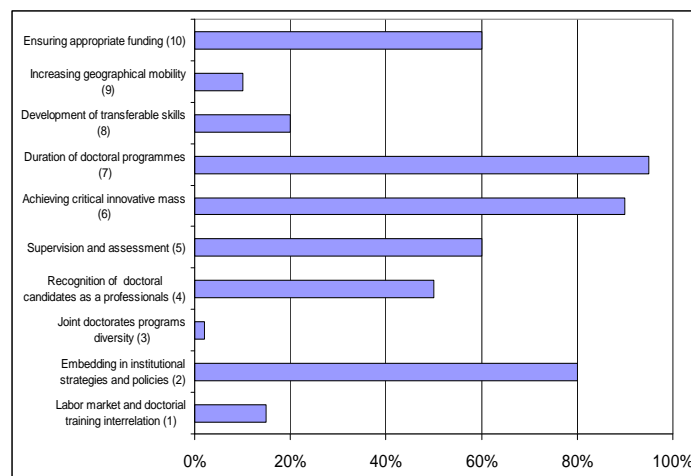


Figure 1. Current level of implementation of Salzburg principles at Armenian universities

In addition, thesis defense process bureaucracy is overly inflated. First, a doctorate student defends a thesis at the University Chair, then in a leading organization, and finally in a Professional Council, but, in fact, not all the professors deal with the narrow specialization of a thesis within this council. After passing this three-step defense procedure, a PhD student can fail at Supreme Certifying Committee. This will lead to a second defense.

Based on the results of self-evaluation implemented by EU-funded Tempus VERITAS (Structural Development of the Third Cycle Based on Salzburg

Principles) Project Armenian work group, it can be observed, that the system of post-graduate education is close to Salzburg principles, but there is still much to do (see figure 1).

Which Are the PhD Education Development Targets?

Post-graduate education is more widely discussed within Bologna process development not only in Armenia, but also within European Higher Education Area generally. From this point of view a question can be raised: which are the more important targets in doctoral studies: whether to prepare researchers with transferable skills, or to make original research and present a dissertation with scientific novelties. These issues are closely related to the implementation of Salzburg principles for the third cycle of vocational education, taking the doctoral training as an advancement of knowledge through original research. At the same time, it is recognized that doctoral training must increasingly meet the needs of the market that is wider than academia².

According to experts, at Armenian universities a doctoral thesis is often a review paper, derived from books in Armenian or Russian, rather than original work of independent research. Consistent with statistics, over 45% qualified scientists and researchers have left Armenia in the past twenty years seeking better quality research environments outside³. While the Armenian higher education system battles for improvements within the realm of the third cycle study to find the most adequate ways to incorporate quality research in doctoral education, throughout Europe battles and transformation have occurred just in the same way. It has been noted, that the change of focus in doctoral education from the research output - the thesis, to the doctoral degree holder has been fundamental in the development of career services. The outcome is no longer the research results to be defended in front of an expert panel, and doctorate holder with specific research, transferable skills and experience, should be represented in a wide range of careers⁴.

In this regard, a question arises: which areas for carrying out the process of reforms in doctoral studies should be targeted at, promoting social and economic

² The Bologna seminar on: "Doctoral Programs for the European Knowledge Society", Salzburg, 3–5 February 2015.

³ Implementation of Salzburg Principles in the Republic of Armenia, EU-funded Tempus VERITAS Project, Yerevan, 2015, p. 28.

⁴ **Byrne Joanne, Jorgensen Thomas**, "Quality Assurance in Doctoral Education – Results of the ARDE Project", EUA publications, 2013, p. 36.

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development of the society. On one hand, the PhD is assisting the development of the professional career of researchers, giving them more opportunities for taking high level job positions in the labor market. However, at the same time, not very often are they consistent followers of research novelties implementation process, and in that case, the scientific results do not actively promote the social and economic development of the society.

One of the main tasks of researchers is to focus on continuous improvement of their research skills and competence. A number of studies suggest that doctoral degree holders' personal career progress is significantly faster than that of other degree holders. However, many universities are quite aware that the transition from academic to non-academic labor market could be made easier if doctoral candidates were prepared for the transition from an early stage

A question arises: why to prepare many doctors instead of preparing specialists who would be in great demand in local and international labor markets? Why not to conduct needs assessment to find out the most demanding specialties and not the most fashionable ones? How to implement international experience and good practices in the education system of Armenia?⁵

Doctoral study process should be more closely related to Salzburg principles, operating within the scope of Bologna process. However, the set of standards, for establishing and implementing efficient third cycle are as follows:

- the core component of doctoral training is the advancement of knowledge through original research,
- embedding of institutional strategies and policies aimed at operating PhD programs towards the promotion of society's development,
- recognition of doctoral candidates as early stage researchers,
- creation of linkage between PhD programs and scientific-labor markets.

The number of doctoral candidates, successfully completing their studies, should make more positive impact not only on personal career progress, but also on the development of society. As a result of PhD candidates successfully completing their degrees, it is expected that far more trained researchers than before will seek and will have to seek job outside academia and research institutions. Relevance of research topics and the achievement of additional

⁵ Yeritsyan S., Tshuguryan A. "Bologna Process Consequence Pathway", Yerevan, 2015, p. 74.

transferable skills, abilities for non academic labor markets, currently became the key challenges in doctoral education in Armenia.

Professional and Transferable Skills Interrelations in Effective Teaching Strategy

Surveys conducted among doctoral students at the universities of Western European countries show that more than a third of them prefer to work on the dissertation, spending more than 21 hours a week in this area (see Table 1), that is, seek their doctoral studies in educational subjects and be more involved in research activities.

Lecturing professional skills in PhD studies gives some space for discussions conditioned by the existence of graduate's skills obtained in his former degree period. Thus, it is of paramount importance to understand what additional skills missed by the graduate student during his master's and bachelor's studies are to be obtained by him at this PhD stage. Without "pre-training of master's" it would have been difficult to obtain research, pedagogical or management skills in PhD studies since first of all the doctoral student should be familiar with those, and then should obtain creative transferable skills.

Table 1

How many hours a week do you spend on working on the thesis? (%)⁶

	0	1-5	6-10	11-15	16-20	More than 21 hours	Respondents
Austria	20,8	15,6	17,7	5,7	4,9	35,2	610
Belgium	27,9	11,6	14,3	6,3	6,3	33,6	301
Croatia	26,2	6,8	16,7	4,0	5,6	40,7	324
Finland	22,0	9,8	17,0	8,7	10,6	32,0	654
France	17,6	9,2	12,2	6,0	5,9	49,1	1124
Germany	18,6	11,2	18,2	5,9	8,3	37,7	1165
Holland	24,0	11,3	20,1	4,5	9,3	30,9	583
Norway	22,0	10,1	17,6	9,0	7,2	34,2	755
Sweden	28,1	9,2	15,5	5,1	5,7	36,5	491

⁶ Eurodoc Survey I, Descriptive Report, 2009, page 77.

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The graduate of PhD studies must have full professional skills in scientific, educational, management, innovation generation fields, and thus master such skills which will be transferable from science to pedagogy, or from pedagogy to leadership. Transferable skills are universal and of great importance in utilizing the professional skills of a doctoral student in all fields. This is the reason why doctoral students are taught more transferable skills rather than professional skills (See Figure 1).

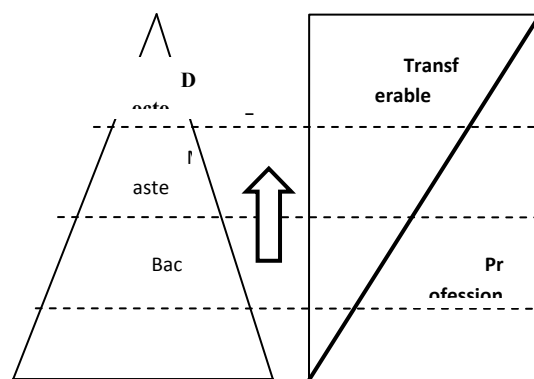


Figure 1. The process of transferable skills formation at different stages of vocational education

The ranges of transferable skills for the outcomes of doctoral education at various universities are different, but in general they are summarized in the following groups:

Analysis & Problem-Solving

- Define a problem and identify possible causes
- Comprehend large amount of information
- Form and defend independent conclusions

Interpersonal & Leadership Skills

- Facilitate group discussions or conduct meetings
- Motivate others to complete projects (group or individual)
- Respond appropriately to positive or negative feedback
- Effectively mentor subordinates and/or peers

Project Management & Organization

- Identify goals and/or tasks to be accomplished and a realistic timeline for completion

- Prioritize tasks while anticipating potential problems
- Maintain flexibility in the face of changing circumstances

Research & Information Management

- Identify sources of information applicable to a given problem
- Understand and synthesize large quantities of data
- Design and analyze surveys

Self-Management & Work Habits

- Work effectively under pressure to meet deadlines
- Comprehend new material and subject matter quickly
- Work effectively with limited supervision

Written & Oral Communication

- Prepare concise and logically-written materials
- Write at all levels — brief abstract to book-length manuscript
- Explain complex or difficult concepts in basic terms and language
- Write effective grant proposals⁷.

Compared to the previous educational systems, PhD studies are different as they provide the graduate with transferable skills (See Figure 2) on the basis of which the following characteristics can be found:

- High level of self-management
- High level of creative activities
- Flexibility of decision making
- Quality criteria of research analysis

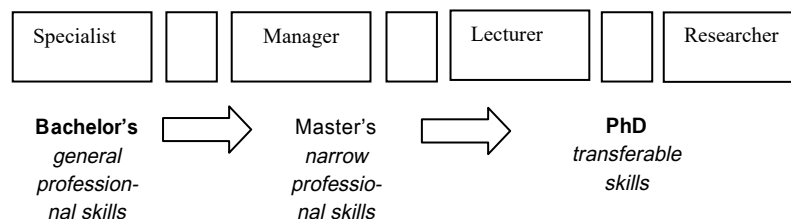


Figure 2. The formation process of qualitative characteristics of a PhD student in educational levels of HEIs

⁷ Students Life, University career center, University of Michigan, <https://careercenter.umich.edu/article/phd-transferable-skills>.

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The formation of a creative way of thinking among students must also be considered a milestone of increasing competitiveness of vocational education. Mechanical understanding of things prevails among some students and professors when education is mainly considered as an activity of transferring knowledge with the aim to later check through examination.

CONCLUSION

Some lecturers and students still consider the educational process as a way to obtain knowledge rather than a process directed to develop a way of thinking.

Nowadays those educational programs of the third cycle of higher education are deemed competitive since through their final outcomes not only “competent” graduates are formed, but also the ones with “creative skills”. In this regard, great attention in educational programs should be paid to the outcomes of efficient personal work with the aim of developing the creativity, innovation and self-expression of learner and this is one of the requirements of Bologna process⁸.

ԿՐԹՈՒԹՅԱՆ ԱՐԴՅՈՒՆԱՎԵՏ ՌԱԶՄԱՎԱՐՈՒԹՅՈՒՆԸ ԴՈԿՏՈՐԱՆՏՈՒՐԱՅԻ ԾՐԱԳՐԵՐՈՒՄ

ՄԽԻԹԱՐՅԱՆ Ա., ԽԱԶԱՏՐՅԱՆ Ն.

Ամփոփում

Քանալի բառեր՝ ասպիրանտի փոխանցելի հմտություններ, Ջալցբուրգյան սկզբունքներ, ուումնառության մրցունակ վերջնարդյունքներ:

Կրթական գործընթացը որոշ դասախոսների և սովորողների շրջանում դեռևս ընկալվում է որպես գիտելիք ձեռք բերելու միջոց, և ոչ թե որպես մտածողության ձևավորմանն ուղղված գործընթաց: Ներկայումս բարձրագույն կրթության երրորդ աստիճանի այն կրթական ծրագրերն են դառնում մրցունակ, որոնց վերջնական արդյունքների համաձայն ձևավորվում են ոչ միայն իրազեկ՝ այլև ստեղծագործական հմտություններով շրջանավարտներ: Այս առումով, մասնագիտական բարձրագույն կրթության երրորդ աստիճանի կրթական ծրագրերում մեծ ուշադրություն պետք է դարձնել ուսանողների անձնային արդյունավետ աշխատանքների վերջնարդյունքներին, որոնք հետամուտ են ստեղ-

⁸ EHEA Ministerial Conference, Yerevan communiqué, 2015.

ծառարարության, նորարարության և ինքնարտահայտման զարգացմանը, որը և Բոլոնիայի գործընթացի պահանջներից մեկն է:

ЭФФЕКТИВНАЯ СТРАТЕГИЯ ОБУЧЕНИЯ В ПРОГРАММАХ ДОКТОРАНТУРЫ

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Резюме

Ключевые слова: *передаваемые навыки аспиранта, Зальцбургские принципы, конкурентоспособные результаты обучения.*

Образовательный процесс по-прежнему рассматривается как способ получения знаний, а не как процесс, направленный на развитие образа мышления. В настоящее время конкурентоспособными являются те образовательные программы третьего цикла высшего образования, по конечным результатам которых формируются не только «компетентные выпускники», но и те, у кого есть «творческие навыки». В этой связи особое внимание в образовательных программах следует уделять конечным результатам личной эффективной работы, нацеленной на развитие творческой, новаторской мысли, что является одним из требований Болонской системы.