

THE MAIN CHALLENGES AND POSSIBILITIES OF MATCHING THE HIGHER EDUCATION SECTOR WITH THE LABOR MARKET

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Abstract: *The paper aims to discuss the main challenges faced during the implementation of Bologna reforms with regards to the engagement of higher education (HE) and labor market considering the potential capacities of the Armenian Higher Education Institutions, peculiarities of the Armenian reality and existing policies intended to strengthen this sector.*

The challenge of matching of HE with the labor market is mainly discussed within the problems of life-long learning, three-cycle educational system, popularization of HE and so called “not demanded specialties.”

In addition to this, the paper includes the draft survey methodology (refer to Appendix 1) mostly emphasizing on the integration of ECTS into the sector of HE in Armenia. The survey is planned to conduct between the end of April 2008 and beginning of May 2008. The latter's results will be reflected during the paper presentation at the Conference entitled “Looking Forward: Global Competitiveness of the Armenian Economy.”

Keywords: HE in Armenia, Labor Market, Life -Long Learning, Bologna Reforms

I. ABBREVIATIONS

ECTS-European Credit Transfer System

EHEA-European Higher Education Area

HE-Higher Education

HEI-Higher Education Institutions

LLL-Life-Long Learning

RA-Republic of Armenia

“...one man cannot practice many arts with success...”

Plato

II. INTRODUCTION

On May 19, 2005 the Republic of Armenia (RA) Minister of Education and Science signed the Bergen Communiqué of the Ministers of Education from the Bologna participating countries; thus Armenia officially joined the Bologna process committing itself to completing the implementation of main principles of the Bologna process by its specific action lines by 2010 and becoming part of the emerging European Higher Education Area (EHEA).

European Integration in education and particularly in higher education is a real historical challenge for Armenia in moving towards European Integration. Participation in the Bologna process firstly is a unique opportunity for reforming and updating higher education system of the country in consistency and harmony with the European quality standards and making it compatible to European systems. On the other hand, higher education reforms guided by the Bologna principles are called to help the higher education institutions of Armenia to adapt themselves and be responsive to the developing knowledge based economy and changing needs of the global labor market, improve their competitiveness, external attractiveness and employability of the graduates, expand the social mission of the HEIs and their participation in the processes aimed at developing modern civil society and innovative economy.

The first official strategic document in the area of education in Armenia was the National Plan for Education Development for 2001–2005 approved by the RA National Assembly in June 2001. This plan from which only specific provisions were implemented did not envisage any activities for the implementation of the Bologna principles and did not have visible impact in terms of the development of the Bologna process in Armenia. The Higher Education Reforms Strategy of Armenia developed with the World Bank assistance and approved by the Government of Armenia in November 2003 was called to fill somehow this gap. It provides detailed analysis of the higher education sector of Armenia in terms of 6 initial action lines in the Bologna Declaration, substantiates the necessity for Armenia’s joining to the Bologna process, and identifies main strategic issues of the Bologna reforms. Unfortunately, the document lacks description of reform strategies for specific action lines. Moreover, the document has become considerably outdated in its

European Integration aspect and with the issues covered is not consistent with the latest developments of the Bologna process since the list of Bologna action lines (objectives) has been expanded to 10. The paper¹ prepared with the support of UNDP contains also a concept on the Armenia's strategy of Bologna reforms some recommendations of which were later implemented. Current developments of the Bologna process are today guided by the timetable approved by the Protocol Decree of the RA Government² containing specific directions on the implementation of the Bologna principles.

Overall study of the situation in the area of higher education, particularly, analysis of Armenia's 2 National reports on the Bologna process shows that the System is not ready completely to radical structural, programmatic, organizational changes necessary for the effective and full implementation of the Bologna principles. To be involved in the Bologna process HEIs need substantial information and methodical support. On the other hand, implementation of the Bologna principles requires specific legislative amendments and additions, as well as revision and updating of the referred Strategy on Higher Education Reforms based on the new challenges and priorities of the Bologna process³.

It is also worth to mention that within the EHEA there seems to be a gap in pace emerging. Whereas some countries are already "reforming the reforms", as for instance the debate about a reform of external quality assurance in some countries, others are still in the process of implementing the two-cycle Bachelor and Master structure. This might lead to more diverging views in the future, for instance in the Bologna follow-up structure, on what are the issues of utmost importance. Interestingly, this gap in pace is not (only) connected to "old" and "new" signatories. Countries being signatories since 1999 in some cases clearly lag behind as compared to countries that joined the process rather recently, in 2003 or 2005⁴.

III. MAIN REFORM DIRECTIONS

¹ Yu. L. Sargsyan, "Reorganization of Professional Education System as the Main Driving Force for Innovative Development of Economy". Concept Paper (Plan) for Higher and Postgraduate Professional Education Reforms. Draft.

² Government of Armenia Decree No 43-N on Approving the Timetable for the Implementation of Principles of the Bologna Process in the Area of the RA Higher Professional Education dated November 02, 2006.

³ Yu. L. Sargsyan, A.S. Budaghyan, "Current State, Development Trends and Problems of the Bologna Process in EHEA and Armenia," Analytical Report. Yerevan 2007.

⁴ ESIB - The National Unions of Students in Europe, "Bologna with Students Eyes," London 2007.

In 2007 the Government of the Republic of Armenia approved “State Program of the Development of Education for 2008-2015” intending the following reform directions in the higher education:

- a. Provision of the growth of internal and external efficiency of the system;
- b. Strengthening of the connection with the labor market;**
- c. Provision of the accessibility of the system for all the layers of the population;
- d. Reforming of administration and state financing system;
- e. Integration of the system into the European Higher Education Area⁵.

This the main abstract style in which the whole program is described in Armenian. However, what is important here is that one of the main directions of HE reforms is the strengthening of the connection with the labor market. Thus this paper aims to reflect current situation in Armenia with regards to the above mentioned issue and to review the main directions of the implemented and planned Bologna reforms directed towards matching of HE with the labor market.

Bologna reforms assume about ten main reforms aiming to establish or strengthen:

1. Adoption of easily readable and comparable degrees (qualifications);
- 2. Adoption of a system based initially on 2 and now on 3 main cycles;**
3. Establishment of a system of credits;
4. Promotion of mobility of students and academic/administrative staff;
5. Promotion of European cooperation in quality assurance;
6. Promoting European dimension in higher education;
- 7. Life-Long Learning (LLL);**
8. HEIs and students;
9. Increasing attractiveness of the European Higher Education Area;
10. Doctoral studies and synergy between European Higher Education Area and European Research Area.

⁵ Հայաստանի Հանրապետության կրթության զարգացման 2008-2015 թվականների պետական ծրագիր /RA State Program of the Development of Education for 2008-2015/

As mentioned above, the role and engagement of HE and the labor market are mainly connected and discussed within the problems of **LLL, three-cycle educational system, popularization of HE and “not demanded” specialties.**

IV. LIFE-LONG LEARNING: PROVISION OF A FIRM GROUND FOR THE DEVELOPMENT OF HE CORRESPONDING TO THE DEMANDS OF THE LABOR MARKET.

In Soviet times in Armenia there was an extensive network of institutes of **retraining** and professional development for different disciplinary areas as well as a network of continuing education courses within and outside HEIs to which a great importance was ascribed in the planned economy system in terms of **efficient use of professional workforce**. During the transition period, these structures lost gradually their importance as such and stopped functioning, being unable to adapt to changes and respond accordingly to the new requirements and challenges of market economy.

At present, LLL does not have yet a clear social need and structured demand; it is not yet regarded as an effective tool for increasing employability and creation of “more and better quality jobs”. Moreover, the public understanding of the social aspect (social involvement) of LLL is not visible, which considerably hinders the involvement of universities and market orientation of their services offered in this sphere. Besides, the universities presently do not have reliable stakeholders and partners in their initiatives of LLL among state bodies, enterprises and NGOs.

The situation is not satisfactory in relation of institutional offers for LLL either. Due to absence of external/state impact on the universities in Armenia have not yet realized that, as compared to traditional educational and research programs, creation and provision of LLL services is the bridge by which they could get directly connected with the educational needs of the society.

Unfortunately, the market of demanded services as well as the needs of main target groups in training and professional development are not studied; therefore, the universities are not ready to

designing and organizing of such courses, while the Bologna process especially emphasizes the social mission of the universities⁶.

In the respective literatures there are several recommendations directed for the improvement of the situation and overcoming the obstacles which hinder the integration of LLL into the Armenian society. We propose another alternative which is the establishment of a close **cooperation between the HEIs and “RA Employment Service” Agencies** of the Ministry of Labor and Social Issues. The latter already has some experience in organization of re-trainings and vocational courses as well as in cooperation with donors. E.g. vocational trainings are organized by the Agency based on the demand of labor market or vacancies and/or demand of appropriate specialists in a distinct place. The costs of the trainings are covered by the Employment fund⁷.

These agencies are also located in the regions of Armenia and have a big network potential which could be used for the sake of integration of LLL into the society.

On the other hand it should be mentioned that there is no certain equivalent in the Armenian language to “Life-Long Learning”. This fact plays an indirect but important role in the popularization of LLL phenomenon. And it is worth to mention that regardless the fact how this phenomena is called, Armenia and other post-soviet countries, facing transition changes (including change of values, change of the demands of the labor market, etc.) have come across with a raising need of becoming involved in “LLL” in order to match with the demands of new market economy. E.g. a lot of schools were established providing basic computer and special software courses (accounting, programming, etc). Some of the people realized the change of the reality and necessity of matching with the new demands, some of them did not, because of the poor conditions or just because of the lack of realization of the need to walk along with the time. Consequently this has emerged a lot of negative results, including psychological stresses within the society and individual levels (e.g. self-isolation, self- alienation, etc).

V. THREE-CYCLE SYSTEM OF HE: FROM AND FOR LABOR MARKET

⁶ Yu. L. Sargsyan, A.S. Budaghyan, op.cit.

⁷ Ra Ministry of Labor and Social Issues, <http://www.mss.am/eng/about/planszgorc.htm>.

It should be underlined that formation of Bachelor's and Master's Degrees very often has been of formal nature and respective curricula, as a matter of fact, have been created through mechanical dividing in 2 parts of 5-year curricula for diploma-holding specialists. In terms of contents autonomous entry of 2 cycles to the labor market has not been secured since structural changes have not been accompanied by necessary curricular changes. As a result, the first cycle, i.e. Bachelor's degree program was substantially undermined and often is perceived as "spring-board" for the entry to the second, i.e. Master's degree program. There is evident need for radical curricular reforms based on the needs and demands of the labor market.... While the Bachelor's program is very often considered as an equivalent substitute to the program for diploma-holding specialist in terms of its contents then **in case of Master's program, as a matter of fact, are not clarified the program outcomes, scopes and orientation of specialization**. Sometimes it is perceived just as 2-year supplement to the first 4-year cycle which leads to unavoidable duplications or is interpreted as an opportunity to extend the period of professional education. The relationship between the contents of 2nd and 3rd cycle degree programs is not also clarified. Structural reforms of higher education aimed at transition to 3-cycle system should be accompanied with **curricular reform targeted at increasing employability of graduates** and effectiveness of learning. Some strategic issues of curricular reforms are indicated below.

Raising *economic relevance of study programs*, matching their scopes and contents with the current demands and needs of the labor market is a critical issue now. Firstly, this implies revision of lists of specialties (majors) for all the 3 cycles with the aim of matching them with the demands of the labor market and broadening their scope (although this is a solution which might bring some dangerous consequences described in the next sections). This process has already started in some HEIs of Armenia but, unfortunately, it is not of a systemic nature and current nomenclatures of specialties are still formed based on proposals of specific HEI's.

A critical factor for the success of curricular reforms is establishment of feedback from the labor market (potential employers), involvement of employers in the curricular review process and using of its results in restructuring of curricula. Employers must also participate in the development and evaluation of qualification descriptors. Establishment of such cooperation will enable also to

evaluate the impact of curricular restructuring on employability of graduates which is the main target of curricular reforms.⁸

On the other hand even the implementation of curricular reforms in accordance with the labor market should be reviewed in parallel with another problem which is the **popularization** of HE. The issue is described below and here we would only add about the possible negative results of curricular reforms in our reality: the quantity of specialists finishing HEI does not conform with the scope of labor market demand which means that the unemployment rate will continue to be high. Taking into account that the main aims of the reforms is the integration into the emerging EHEA and becoming a part of the European educational system as well as considering the fact that reforms are not only implemented according to the national labor market demands but also to the quality criteria, provision of mobility and other factors defined in the Bologna principles, the involvement of our specialists in the global labor market will be naturally which might also become a reason for **brain-drain**. Although, one should not also exclude the possibility of a brain-drain from other European countries to Armenia.

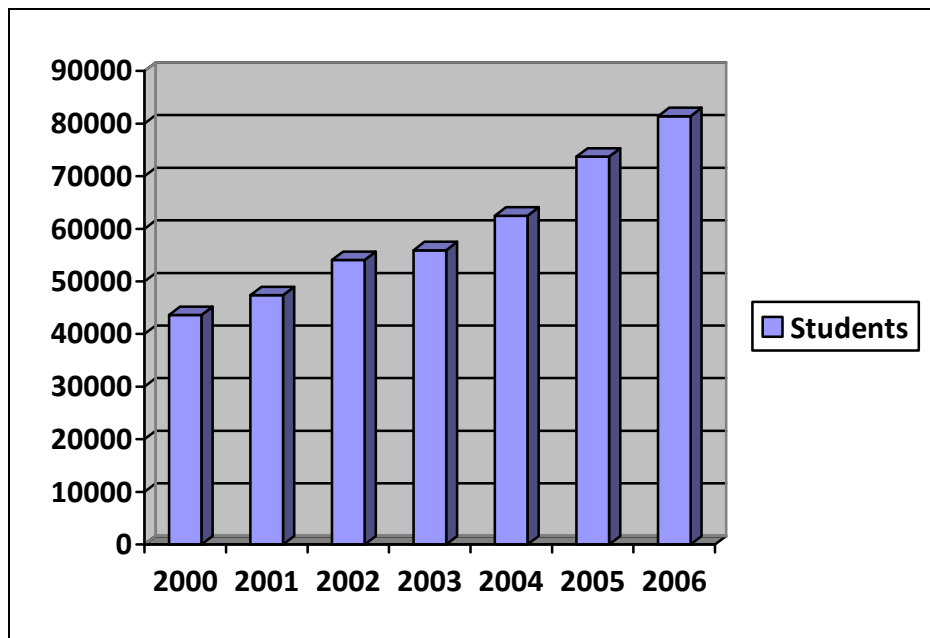
⁸ Yu. L. Sargsyan, A.S. Budaghyan, op.cit.

VI. POPULARIZATION OF HE IN ARMENIA

It is obvious that the main source of the budget of the Armenian HEIs is the study fees paid by the students. Thus the more students they have, the bigger is their budget. This has brought several negative consequences including the **popularization of HE** and decreasing the quality of HE. The latter can be well described if we take a look at several examples: the universities do not exclude low-performance students because that will shorten their budget or HEIs accept applicants with quite low marks and grades in order not to lose potential payments to their budgets, etc. The table 6.1 reflects the growth of the number of students during the years of 2000 and 2007.

This fact definitely contradicts with the labor market demands. As result, we will have a huge army of unemployed people. The latter is determined by the quantity and low quality level of the “specialists.” In addition to the quantitative problem, the current situation is a result of the fact that HE curricula does not match with the requirements of the labor market as described above.

Table 6.1. The number of HEI Students



Source: Statistical Yearbook Of Armenia, 2006, 2007

VII. “NOT DEMANDED SPECIALTIES”

Another issue of concern is the low employability of postgraduate students especially beyond the academic work, and in many cases also graduation without any destination. In Armenia, **the market for research workforce** has yet to emerge. Here the postgraduate program is not regarded as a study cycle preparing for further research career, and, as a rule, is not linked with specifics and needs of future jobs. The efficient experience of professional doctorate widely used in Europe has not been introduced in Armenia yet, which would connect the dissertation research with future research specialization and introduce innovative research projects in different disciplinary fields being based on “HEI – industry” research collaboration⁹.

On the other hand, taking into account that the market for research workforce has not emerged yet, there are still several specialties which have purely academic nature and making them more appropriate with the labor market firstly means exclusion of those specialties from the academia. This reminds the utopic state of Plato, where he classifies useful and non-useful arts according to the Rule of Necessity and Justice¹⁰.

Hence, this is a very important and unfortunately not clearly answered issue. Moreover, this issue is not reflected in reforms and there is no concrete word in the HE strategies about those specialties which have almost no demand in the labor market and the only sphere for the realization remains the market for research workforce. The main idea which is mainly touched with regards to decreasing the unemployment rate is the connection and matching of the HE with the labor market. But how we are going to cope with the above mentioned problems, there are only some general reactions.

First of all, popularization of HE has a direct impact on this issue. This is the case when the quantity matters. There might be some possibility to overcome the situation and involve those specialists at least in the academia itself (which is actually being done), but this solution becomes non-efficient when dozens of people apply and study in those faculties, just because it happens that way.

⁹ Yu. L. Sargsyan, A.S. Budaghyan, op.cit.

¹⁰ Plato, “The Republic”, NY 1995.

In this situation there might be several recommendations. One of them could be the extension of the scope of those specialties, at least during Doctoral studies. The second option is to involve those specialists into the LLL courses, where they could develop and learn new skills and combine them with their majors in order to be demanded by the labor market. Another alternative option is to establish “Major and Minor” system or complementary curricula courses in the HEIs of Armenia according to the experiences of Western universities.

Appendix 1.

I. ESTABLISHMENT OF CREDIT SYSTEM IN ARMENIA’S HIGHER EDUCATION SYSTEM.

Despite the fact that still on December 14, 2004 Article 26.5 of the RA Law on Higher and Postgraduate Professional Education envisaged that “*Mandatory implementation of credit system into the higher education system shall start from 2006/07 academic year*”, nevertheless, due to actual unreadiness of HEIs of the system the Ministry of Education and Science came up with the initiative of making legislative amendments shifting the start of introduction of credit system to 2007/08 academic year (adopted by the National Assembly on July 07, 2006). The completion date of the process remains open.

Particularly, majority of HEIs (with exclusion of SEUA, YSU, YSEU, ARSU) have not started the implementation process from 2007/08 (clause 1), 6 state HEIs involved, except of SEUA, in the pilot (YSU, YSLU, YSAU, ASPU and YSEU) did not introduce credit systems in their programs in the 2005/06 academic year, hence they were not able to summarize outcomes of the pilot stage as well (clause 3a)...

Experience of other HEIs, specifically YSU, YSIE and RASU, related to credit transition is not extensive and is mainly of preparatory nature since the system was introduced in these HEIs only from the 2nd semester of 2005/06 academic year only for one Master’s specialty and with the involvement of very limited number of students. Implementation of credit system in YSU is planned to complete in 2008/09 and in YSIE – in 2010/11 academic year¹¹.

1.1. Mini-Survey Results: Integration of ECTS into YSU

Brief Description: There were selected MA students from two departments of Yerevan State University, aiming to compare the survey results conducted among the experimental group members (i.e. those who are the first carriers of Bologna reforms, more specifically, of European Credit Transfer System (ECTS)) and control group participants (i.e. MA students of traditional educational system).

¹¹ Yu. L. Sargsyan, A.S. Budaghyan, op.cit.

The Main Goals:

1. To reveal the awareness of the students on ECTS.
2. To compare the levels of awareness on ECTS between experimental and control groups.
3. To reveal the level of understanding and the main aims of ECTS by students
4. To find out how the students perceive their readiness for entering the labor market.

Sample: 1st (*experimental*) and 2nd (*control*) year MA Students from the departments of Psychology and Sociology (total number of surveyed students: **54**).

Sample Justification:

1st year master students are the only ones in YSU which study according to ECTS. The latter will also be implemented next year for BA students and consequently for 2nd year master students. Thus for making comparative survey, we could only involve 1st year master students as experimental group participants.

On the other hand, the choice of MA students is determined with their 4-year student experience in traditional higher education during BA studies, which makes the contrast between traditional and reformed systems more apparent and informative regardless the type of the group.

In addition to this, some of the questions reflected in the questionnaire require students (young specialists) with more experience of study in HEIs. To make the data comparable in between the groups, the groups were selected from the same departments. The chosen specialties are among the disciplines in humanities which become more and more demanded by the new applicants for HE.

Results of the Survey

1. Awareness about the ECTS (European Credit Transfer System (which is being implemented now in YSU))

74.1% of the respondents are aware about ECTS out of which 52.5% (which is 38.9% of the whole sample) is directly engaged in the system (according to the responses).

**REMINDER: All 1st Year Master Students are engaged in ECTS (EXPERIMENTAL GROUPS).
2nd Year Master Students study according to the traditional evaluation system (CONTROL GROUPS).**

Interesting notes: 11.5% of the Experimental group (1st year master) students are not aware about ECTS system, despite the fact that they study according to ECTS.

I am afraid, but I think that this picture might be quite typical for a lot of students also outside YSU. According to the existing picture, one can definitely mention that those who do not know about the system, do not also understand the advantages of that system (mobility, integration in to European Higher Education Area, etc...). These students are only aware of the change of evaluation systems, the essence is missed.

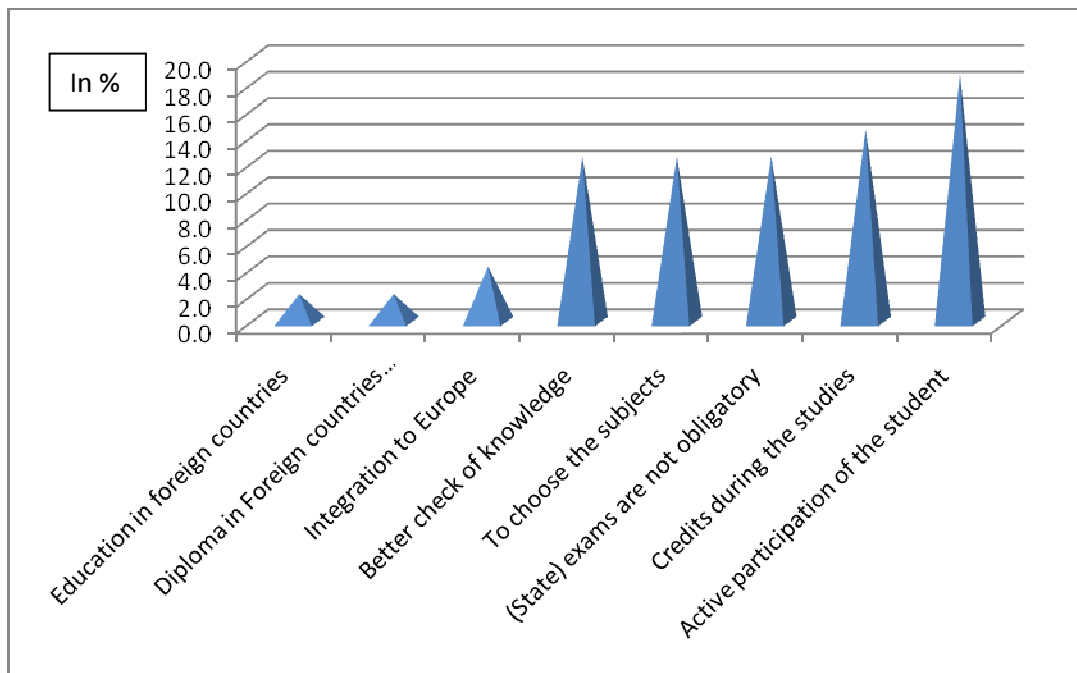
As expected quite a big number of control group students are not aware about ECTS (39.3% of II year master students).

2. Benefits from ECTS for 38.9% of students who are directly engaged in the system

81% - No Benefits (this number might also be justified with the fact that ECTS has been implemented for less than a year in YSU).

3. We have also asked the students (those who are aware about ECTS and are both from control and experimental groups) to indicate some of the **advantages and disadvantages of ECTS**. Here is the picture:

Chart 1. ECTS Advantages



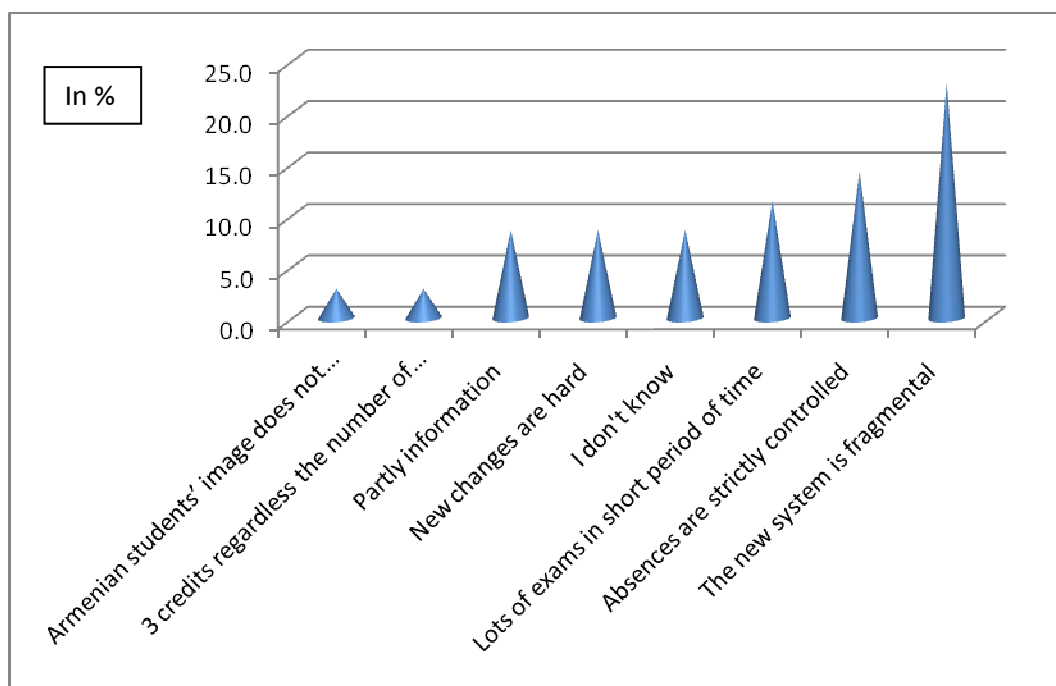
Q4 (Advantages)	74.1%
Education in foreign countries	2.1%
Diploma in Foreign countries accepted	2.1%
Integration to Europe	4.2%
Better check of knowledge	12.5%
To choose the subjects	12.5%
State exam not obligatory	12.5%

As we can see from the chart 1, two of the key concepts of ECTS received only about 2% of the answers. These are “the possibility of studying abroad/mobility” and “Diploma recognition in Foreign countries” (though the latter is not a direct result of ECTS).

Credits during the studies	14.6%
Active participation of the student	18.8%

It is also worthy to mention that students highly appreciate the possibility of being evaluated/obtaining of credits during the semester (and as a consequence we have the active participation of students and non-obligatory exams), existence of selective courses.

Chart 2. ECTS Disadvantages



Q5	74.1%
Armenian students' image does not correspond to ECTS	2.9%
3 credits regardless the number of exams	2.9%
Partly information	8.6%
New changes are hard	8.6%
I don't know	8.6%
Lots of exams in short period of time	11.4%
Absences are strictly controlled	14.3%
The new system is fragmental	22.9%

As we can see from the chart 2, the respondents mostly blame the current partial/fragmental situation of the system than ECTS itself. This point received the highest score: 22.9% (also refer to chart 3).

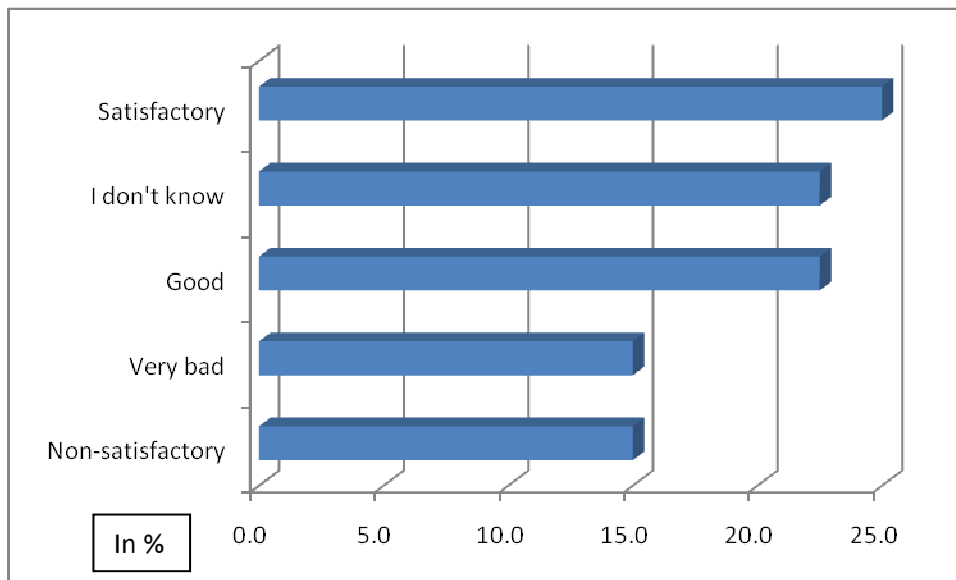
One of the main disadvantages of the system, as indicated by the students, is the control over the absences of students from the lessons, which mostly discourages students to become hired for a job, to be integrated with the labor market, gain some work experience, etc.

The point can definitely be viewed from two sides: from students viewpoint, it is treated as a disadvantage, from the viewpoint of the efficiency of the education, the matter can be treated as

an advantage. The conclusion that we could have here, is that the system most probably contains an error, which causes this paradox. The error became more or less apparent when 24.1% of the respondents expressed their comments on the topic out of which 7.4 % (the highest percent in this scale) agrees that their higher education misses practice. Probably, that's the reason of complaints expressed by the students regarding the strict control over the absences and a good reflection of remoteness of the Armenian HEIs and the labor market.

In this context, it is also worthy to note that 55.6% of the respondents think that their skills learnt during university years only partially match with the Armenian labor market. Accordingly, 24.1% answered positively, 18.% negatively. 1.9% found difficulty in answering this question.

Chart 3. Evaluation of ECTS integration process in the respective departments.



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