

Developmental and Implementation Challenges of E-Learning Management Systems in Higher Education

Nitza Davidovitch¹ & Margaryta Belichenko^{1,2}

¹ Department of Multidisciplinary Studies, Ariel University, Ariel, Israel

² Faculty of Information Technology, Taras Shevchenko National University of Kyiv, Kyiv, Ukraine

Correspondence: Nitza Davidovitch, Department of Multidisciplinary Studies, Ariel University, Ramat Hagolan Str., 28, Ariel, Israel. Tel: 792-54-777-6431. E-mail: d.nitza@ariel.ac.il

Received: June 22, 2016

Accepted: July 4, 2016

Online Published: November 24, 2016

doi:10.5539/hes.v6n4p170

URL: <http://dx.doi.org/10.5539/hes.v6n4p170>

Abstract

The competition that exists today in the labour market has significantly raised the value of knowledge, skills and experience of staff. This particular importance for the modern professional acquire fluency in its modern information technology and the ability to continuously improve the skills. The actual trend is also for university teachers. Getting new knowledge and skills practically useful and applicable in daily teaching activities, in the era of information society significantly expands opportunities for self-realization and contributions to career growth. However, in implementing the model of continuous training of teachers for careers there are some significant obstacles. One of them, given the intense schedule of the educational process in terms of academic mobility is the lack of time. Another the geographical factor. With the location of the university in another city, its visit is inconvenient and expensive. Experience of universities of many countries shows that an effective tool to overcome these obstacles is distance learning, which allows to get all necessary knowledge at any time and in any place. The identity of urgency takes in terms of academic mobility when students and teachers work in another country. The paper proposes a methodological approach that takes into account these features. The paper deals with the structuring of project management programs of academic mobility. The features of these projects show their impact on the progress and results of the implementation. It is shown that traditional approaches to solving the problems of academic mobility management applications to integrate the process of setting objectives and planning projects. But due to the complexity of academic mobility programs to solve these problems effectively without decomposing it into components can be managed quite difficult. Therefore, the main idea of this paper is that an increasing the efficiency of the university on the basis of a possible application of rational structuring of academic mobility programs. The features of these projects shows their impact on the progress and results of their implementation and the ways of construction of project management distance learning systems.

The paper presents the analyse of the structure of scientific and methodological basis of project management systems. In this structure are identified two parts: creation tool to identify knowledge users and how they change, and the creation of information tools effect on these people. The model determines the effect of academic mobility project management tools through knowledge of business administration at the progress of the educational projects.

Keywords: informatisation, e-learning, academic mobility, technology management, higher education

1. Introduction

Education today has become a sector that is developing rapidly in today's information era. University is a center of education, science and culture, which provides studies at certain levels of higher education, conducts scientific, technical, and methodological innovation activities and provides individuals obtaining higher education according to their vocation, interests and abilities. The main task of university preparation of experts became to able to work effectively in an environment characterized by a high degree of diversity, global relationships, access to digital information and high dynamic. However, most universities also need to learn to work and survive in the new competitive market. The end of the last century for universities was marked by a number of radical changes: a decrease in public investment, increasing criticism of the structure of academic management, increasing cost of education, there is a need for new methods of accounting of financial support, the development

of information and communication technologies, competition from the commercial sector of education, the growing international mobility of students and teachers, expansion of export of educational programs and services. All these changes have forced universities to review their strategic goals and decide on the need for reform and change management approaches to education and research activities.

In modern society, the project team management becomes more and more important as an effective team can perform more tasks in a shorter periods thanks to coordinated work of all team members. These results can be obtained by conflict reducing and increasing trust between project team members through non-forceful influences, which are aimed at creating a common, unifying picture of the world for the whole team.

There is a need in research and applying of new non-forceful mechanisms influencing the project team to obtain the necessary results.

2. Theoretical Background

Projects devoted to academic mobility of a significant number of scientific papers. It pays considerable attention to the creation of project management at universities, methods of program planning and others. The scientific and methodological tools of project management, which can be applied in academic mobility programs (Bushuyev & Bushueva, 2010).

Study the effectiveness of management of universities in the information society, the main characteristic feature of permanent transformation and a progressive accumulation of knowledge, dedicated many works mostly foreign scientists, including university as a business organization is seen in the works of Clark, Ropke, Haynutdynova, Hrudzynsky, Tsatouryan, Romanovsky, Gavrilyuk and Roznova. The question of process-oriented and project management investigated Flint, Asaulom, Goryunov, Wagner, Kaparov, Kudryavtsev, Sukhorukov, Fedorkin, Strongina, Afasizhevym, Teshevym, Grigno, Lankin and Belyakin. In most studies the problems of adaptation and survival of the university, as subjects of a competitive market, changing economic conditions (Ramirez, 2014).

However, solutions to new challenges of universities require practical developments in the field of university management, including the development of innovative management structure capable of ensuring the efficiency and development of universities in terms of autonomy, fierce competition, the variability of the environment and the lack of experience of entrepreneurship.

2.1 *The Global E-Learning Industry Market*

Countless reports, surveys, and studies have shown that E-Learning industry isn't showing any signs of slowing down. In fact, an increasing number of individuals, corporations, and institutions are turning to E-Learning as they recognize its effectiveness and its convenience. The system of Training management often referred to as a Learning Management System (LMS)—is a key element of an effective professional development plan as well as being a key element of an organization's human resources strategy.

There seems to be universal agreement that the worldwide E-Learning market will show fast and significant growth over the next three years. The worldwide market for Self-Paced E-Learning reached \$35.6 billion in 2011. The five-year compound annual growth rate is estimated at around 7.6% so revenues should reach some \$51.5 billion by 2016. While the aggregate growth rate is 7.6%, several world regions appear to have significantly higher growth rates. According to recent regional studies, the highest growth rate is in Asia at 17.3%, followed by Eastern Europe, Africa, and Latin America at 16.9%, 15.2%, and 14.6%, respectively (Source: Overview of the Global E-Learning Market, 2016).

The cloud is changing the way organizations, employees and partners interact and collaborate. Within the cloud solutions universe, Software-as-a-Service (SaaS) is playing a major role. According to Gartner, SaaS will continue to experience healthy growth through 2014 and 2015, when worldwide revenue is projected to reach around \$22 billion. Gartner has stated that many enterprises are now replacing their legacy systems with SaaS-based CRM systems. Enterprise clients also report that SaaS-based CRM systems are delivering new applications that deliver complementary functions which are not possible with older, legacy CRM platforms (Source: Overview of the Global e-Learning Market, 2016).

Various surveys and analyses into the reasons behind this big growth in SaaS agree on at least three.

SaaS brings:

- Speed of implementation
- Savings on capital expenditures

- Savings in terms of operational expenses

This system of Training management-often referred to as a Learning Management System (LMS) is a key element of an effective professional development plan as well as being a key element of an organization's human resources strategy.

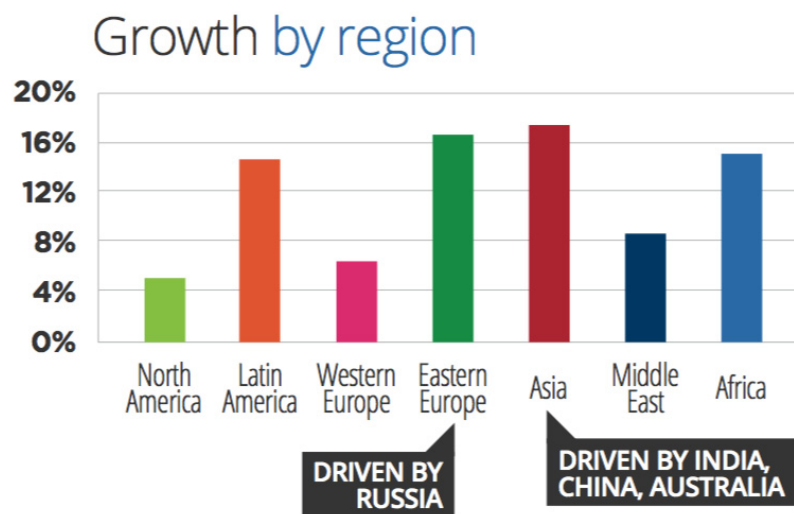


Figure 1. 2011-2016 growth rates by region

Table 1. Total E-Learning market packaged content (LMS+Packaged Content+Other Services)

	2013	2016
Total	40.605	51.172
North America	23.800	27.100
Western Europe	6.800	8.100
Eastern Europe	729	1.200
Asia	7.100	11.500
Middle East	443	560
Africa	333	512
Latin America	1.400	2.200

Table 2. Packaged content

	2013	2016
Total	30.153	38.000
North America	17.674	20.124
Western Europe	5.050	6.015
Eastern Europe	541	891
Asia	5.272	8.540
Middle East	329	416

Each of the world's regions has its idiosyncrasies in terms of the factors that drive this market. In Asia, for example, Government-funded projects related to literacy development in rural areas are a major driver to the introduction of E-Learning. In the Middle East, governmental interventions play a critical role in the dissemination of E-Learning material as educational methods. This is directed not only at students (ranging from those in elementary schools to those on post-graduate programs), but also at employees in the public sector. Asia has the world's highest regional growth rate for E-Learning of 17.3%. Revenues from the sale of E-Learning reached \$5.2 billion in 2011 and are expected to more than double to \$11.5 billion by 2016. The vast majority of these revenues will be generated from the sales of packaged content (Source: The Top E-Learning Statistics and Facts).

Throughout the whole of Asia, Government-funded projects related to literacy development in rural areas are a major driver to the introduction of E-Learning. Eastern Europe has the second-highest economic growth rate in the world after Asia (17.3%). In the field of E-Learning, Russia is the country with the highest growth rate and is now considered to be a mature market. The main drivers of this growth are government investments (public sector funds) and the presence of numerous start-ups that deal with technologies for teaching purposes. The global E-Learning Market is expected to reach \$107 billion by 2015. The global self-paced E-Learning market reached \$32.1 billion in revenue in 2010, with a five year compound annual growth rate of approximately 9.2%. This means that the self-paced E-Learning market should see estimated revenues of \$49.9 billion in 2015. Top 10 Growth Rates By Country (Source: The Top e-Learning Statistics and Facts).

2.2 Developmental and Implementation Challenges

The technology employed to deliver Learning and Development has grown increasingly varied and complex. The cloud, social tools, mobile technologies, and other advances have created a host of opportunities for new learning experiences—so much so that technology has become the top L&D priority. Exploring new and different technologies surpassed even the learning strategy as the top focus over the next 12 months (Source: 2016 Brandon Hall Group Learning Technology Study).

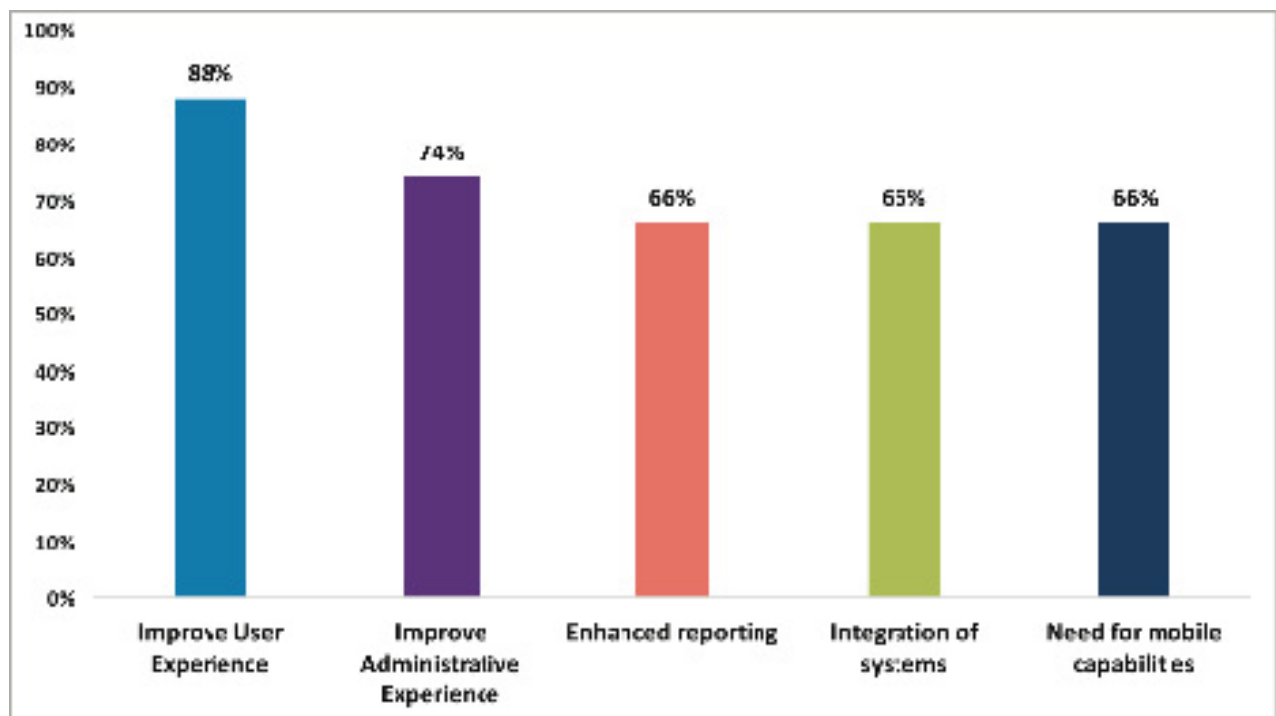


Figure 2. Top five reasons for switching LMS

One of the major problems in the projects and programs management of is the task of evaluating the status of the product of the project, project environment and surrounding, etc. This task is inseparable from the processes of

information management, which in turn is needed for making rational decisions at all stages of the project. To these issues attention is paid in a large number of studies.

But if the methods of information management in projects are taught, almost no attention is paid to the impact of this information on the decisions makers, and on the decisions themselves.

And if the issue of optimal solutions is researched, attention is not paid to the information management and project teams. The solution is mostly formed not by the decisions makers, but by the individuals who provide information (impact) to make decisions, people that shape the knowledge of decisions makers, and other project members.

The analysis shows that there are no works devoted to consideration of project team management issues, such as information management from the position of influencing on the members of the project, which will optimize the process of information exchange in projects (Bridges, Juceviciene, Jucevicius, Mclaughlin, & Stankeviciute, 2014).

From the analysis of basic research and publications implies a need to examine the effects on the management of projects human resources, but not from the point of maximum information share with project members, but from the position of desired effect on the project team members. It should take into account not only the tools of obtaining information about this influence, but also the specific effects of information visualization methods, which are focused on informational influence on the project members. The presence of the unsolved problems in this area forms an objective need for developing knowledge management tools on project activities of enterprise. The purpose of the article is to describe the project team influence management, via tools of information visualization, through a decision maker of the project. The interaction is mainly used to build artificial models of academic mobility, as well as scientists in project management (Choudaha & Chang, 2012). The basis for effective project management is information. It is known that the problem of decision making in projects always associated with management processes information support quality. This is especially acute in project-oriented enterprises. Since the project differs from operational activities by more dynamic, changes, and time dependency (Igorchenkov, Lisitsyn, & Kataev, 2012).

In this case actual information timely receipt is more necessary, that is difficult due to the highly dynamics of processes in projects. And the information is “getting old” in projects quicker than in operating activity. If the information is complete, timely, accurate, we can believe in the success of the project. But it is important not just to get information. Importantly, what information managers get, and in what form. If the requirements of complete, timely and accurate information are the prerequisite for good management, while the requirement of “usefulness” and “accessibility” are sufficient for such management.

Taking into account this new approach to defining processes necessary for effective project management information influence that creates new knowledge in projects. It is based on use of the theory of non-forceful tools, models, methods and tools for information visualization.

The combination of the principles of impact on project team members with forms of information in order to create the necessary attitude to the project (necessary knowledge) in team members is the main idea of the project work. To achieve this goal it is necessary to determine:

- 1) What knowledge makes positive impact on the project results and how it does?
- 2) What information steps are necessary to form this knowledge?
- 3) Interaction of stakeholders realized in project situations (as specific activity) when project activities are suspended for replanning, considering the conditions that actually exist (Bushuyev & Bushueva, 2010).

3. Problem Statement

The research goal is the development of rational structures of academic mobility programs, which largely positive impact on the results of their implementation. Program management methodology based on academic mobility system approach to constructing complex of organizational and technical systems that involves decomposition of the object studied in order to build its description by description of individual parts of the object. In other words the basis of a systematic approach to program management is structured. It is important to note three types of structural descriptions of project management software. First, the description of the project as objectively existing category, and secondly, the description of the project management as a set of techniques developed impact on the project, thirdly, a description of the stages of the project, a strategic plan to achieve these goals.

Structuring academic mobility programs is to allocate part of the program of structural and construction scheme of relations between them. The objectives of structuring programs are:

- 1) Separation of applications into blocks undergoing governance.
- 2) Responsibility for coordination of different elements and the start of work on the structural organization.
- 3) Development based on the smallest elements of a more accurate assessment of necessary expenses, time and resources.
- 4) Create a common system for planning, stages and timing of their implementation, necessary funding, budgeting and cost control.
- 5) The transition from general objectives to normal activities, perform different structural units of the university.
- 6) Determination of work groups and performers.
- 7) Determination of costs stages of the life cycle.

Consider the most influential structures of academic mobility programs, the correct construction of which will significantly increase the efficiency of the management of this program. Project situation “expose” the conflicts projected disparity of methods and means of actual conditions, understanding the diversity of stakeholders the situation, attitudes to it, vision of their follow-up project and a vision shared with other stakeholders. The ability to resolve these conflicts determined the ability of stakeholders to reflection on their own activities, of the project as a whole, the future of the product, its specific and global results. The possibility of stakeholders are objectively limited by actual ability of reflection on its own activity. Managing the interaction within project management is a separate, specific activity. Analysis of the conditions in which the interaction is implemented in the projects proves that relationship management—a type of administrative activity in the project, which should be carried out as a project. Because of this interaction of each situation should be considered as a “project design” and manage it as a project, but not in the traditional sense, but considering its specificity. The first concerns the moderate-broadcast mutual understanding between stakeholders messages that are associated with the project situation. The purpose of moderation—of devising common thesaurus, uniform understanding of the situation, further joint design of the project subject to the conditions actually prevailing in the project and in the life of stakeholders. The basic category is attitude of each stakeholder to the situation. Measurement, evaluation, interpretation of attitude is possible by using the tools of the theory of non-forceful integration interaction, fuzzy set theory, the method of multi scales (Streitwieser, 2014).

The second function applies to measurement, evaluation and interpretation of the criterion of homogeneity of the environment of the whole project and environment interactions in a given project situation. The role of the basic categories within this function plays a “corporate culture”. Features of the theory in this area are enormous. And one of the most important issues in project management is the efficient use of labor resources project. After all, the ultimate goal is to achieve goals and fulfill all customer requirements. If these tasks were implemented in time and do not exceed the target limit of resources, it means the project is executed efficiently.

Therefore, for effective project management we need to learn how to manage a variety of influences (information) on the workforce. And the information is needed for each project participant, as a condition and means of their work for the project. We must not only develop appropriate methods, but also generate impacts on human resources (project team) so that it took the best decision. The main problem today in the management of human resources projects are influences that occur in the middle of a labor groups, and beyond. Ways to non-forceful conflict resolution is almost absent. Project situations “expose” the disparity conflicts of projected methods and means against actual conditions, understanding the diversity of the situation by stakeholders, attitudes to it, vision of their further activities in the project and a shared vision with other stakeholders. The ability to resolve these conflicts determined the ability of stakeholders to the reflection on their own activities, of the project as a whole, the future of the product, its specific and global results. Nevertheless the capability of stakeholders is objectively limited by actual ability of reflection on its own activity (Igorchenkov, Lisitsyn, & Kataev, 2012).

This proves the actuality of managing the influence within project management is a separate, specific activity. Analysis of the conditions in which the interaction is implemented in the projects proves that interactions management is a type of administrative activity in the project, which should be carried out as a project activity. Because of this—every each interaction situation should be considered as a “project inside the project” and should be managed it as a project, but not in the traditional sense, but considering its specificity. The activities on managing this “project inside the project” is done not by making the management decisions but by implementing two main functions.

The first concerns the moderating of mutual broadcasting understanding of messages between stakeholders that are connected to the project situation. The purpose of moderation is on devising common thesaurus, uniform understanding of the situation, and further joint design of the project activities with the conditions actually prevailing in the project and in the life of stakeholders. The basic category is “attitude” of each stakeholder to the situation. Measurement, evaluation, interpretation of “attitude” is possible by integration of using the tools of the theory of non-forceful interaction, fuzzy set theory, the method of multi scales. The second function applies to measurement, evaluation and interpretation of the criterion of homogeneity of the environment of the whole project and environment interactions in a given project situation. The role of the basic categories within this function plays a “corporate culture” (Bushuyev & Bushueva, 2010).

Features of the theory implementation in this area are enormous. And one of the most important issues in project management is the efficient use of the project team. After all, the ultimate goal is to achieve goals and fulfill all customer requirements. If these tasks were implemented in time and do not exceed the target limit of resources, it means the project is executed efficiently.

4. The Structure of the Process

In a project to create a system of project management affecting many different factors that lead to changes in the management of this project, distributed across life stages. In complex programs (which, of course, include programs and academic mobility) often impossible to divide the life cycle into disjoint parts in time. Each stage of the project life cycle of academic mobility program is characterized by its approaches, ways of solving tasks, activities project manager. In domestic practice, universities often used such a control scheme in which the project manager is a representative of the university. In this case, the project manager is responsible for coordinating and managing the development and progress of the project. The advantage of this approach—direct involvement during the work, disadvantage—isolation from the developer.

Management is a complex area of human activity, can be more challenging than any other because not only affects the specific subject area of activity, but the specificity of human relationships. A key role in the management of the program of academic mobility play a professional in project management-program coordinator of academic mobility. The main task facing the coordinator of academic mobility of the University is the organization of each individual project manager. Specifically coordinate actions so that the project manager can quickly and accurately respond to its tasks, the organization managing each project, project planning, budget allocation for projects; definition of responsible, coordination of the timing of projects, providing the necessary resources for the execution of various works.

The project manager should perform based on a single methodology of academic mobility program, responsible for the creation of which is also coordinator of academic mobility. This approach will effectively and professionally manage all activities on academic mobility of higher education institutions and ensure rational use of resources and time for universities to achieve their goals.

The main role, which is given to the head in the programs of academic mobility, can be described as follows: professional manager (in this case the manager) is responsible for implementing the program of academic mobility—because it plans, monitors and controls the progress of the program. The existence of a professional manager in the circuit implementation of programs of academic mobility is a key feature of the program management methodologies.

Formation of organizational structure of academic mobility programs occurs during the program on two areas of performers—creating products of the program of academic mobility and performance of operational tasks. And it looks like this: leadership is considering the implementation of the program in some unit. If the application is accepted, work begins on setting objectives, developing the concept, obtaining financing, project development and implementation. Thus all steps of project managers focus on curator portfolio of projects and actions of the project manager for a specific project, which, as mentioned earlier, is often part of the university. Thus the performers take a passive stance aimed at implementing their narrow (limited) tasks (performed labor agreement their tasks and leave the project). Effective promotion of the project in general, artists are not interested. So, usually at the intersection of work performed by the various stakeholders there are many issues (technical, technological, organizational, etc.) that should decide the head of a specific project. So he can not pay due attention to strategic issues. This role curator portfolio, to whom I and applies a particular project (or senior management institutions). To correct such schemes in universities to create divisions received the right leadership programs of academic mobility. Thus, a hierarchical structure of academic mobility management programs that meet the conditions for their implementation. In this case, there are positive changes immediately.

Small issues and problems are solved automatically at unit level. Project manager focused on solving design problems.

4.1 The Structure of the Programs of Academic Mobility Products

Since this academic mobility program aims to achieve various objectives such as: the development of the information society with a gradual transition to a knowledge society, a global education market raise the problem of creating a new model of e-learning. Gaining university autonomy granted universities freedom, allowing you to fully disclose all of its potential and use it effectively for the benefit of society and personal development as well.

The traditional structure of academic mobility programs of Universities is built on a functional approach, for which the main vertical relationships in the organization, adaptive-in the process, key of which are horizontal links. These links are weak in terms of the traditional vertical division of power. However, the advantage of the process approach to management is the relationship of processes and functional units and an effective coordination of multi-operating activities.

Typically, the process has horizontal owners of individual units, which creates artificial barriers between them. To effectively manage horizontal process should be identified and should be determined by its owners, including owners of each link. Powers owners (management) processes enable them to make decisions and monitor the work of his team. Adaptive structure providing not only process control, but also team building process that consists of all integrated management processes included in their functional process. The main task team process-ensure that the problems facing the owners of the process. To do this, senior management has delegated some of its powers to owners of the process and his team, removing functional barriers (Igorchenkov, Lisitsyn, & Kataev, 2012).

In addition, programs can be involved companies that have databases of practice and other institutions involved in the program through student mobility. So the responsibility for educational activities Universities distributed between many actors of the process. The vertical structure has special units to develop and implement interdisciplinary educational programs, research and scientific and industrial projects. Working on new and current projects “imposed” in addition to the traditional vertical management structure and actually creates a new layer of “horizontal” interactions as a kind of necessary regular activity. In this regard, university management is becoming more project-oriented. New tasks facing the university only reinforce the need for such interactions, which is not provided for the vertical structure. As a result of program/project serves as a new and important structural unit management. The process of creating the product structure of academic mobility programs of is very long.

This formed by the internal structure of products. In each case, this structure is unique and should reflect a statement of the problem, and streamline project management team of academic mobility of programs.

4.2 Structured Management Academic Mobility Programs

In project management methodology can identify a number of structural parts that provide a solution to specific problems draft programs of academic mobility. They are the following sections of project management:

- Project analysis (economic, financial, etc.)
- Project planning
- Management activities (risk management, cost, time, quality, human resources)
- Human factor in project management
- Organizational structure of project management
- IT project management and enterprises

Effective solution of the above problems is possible through the creation of such a system of academic mobility programs, which would include a number of subsystems that provide solutions to these problems. These subsystems should be based on these structures as in organizational and process plan.

These subsystems include:

- Planning subsystem
- Monitoring subsystem
- Subsystem decision-making
- Subsystem assembly and budget support programs

- Subsystem reporting
- Subsystem inspection and acceptance
- Change management subsystem
- Procurement management subsystem
- Subsystem forming a technical description of the product

Table 3. The influences of academic mobility projects features at their characteristics

No	Features	Influence	Anti-impact
1	Interconnection projects and products	On the order of projects execution	Creation and use management system of academic mobility program
2	Financing programs of academic mobility of higher education institutions	1. On the possibility of their implementation 2. On the the progress of their implementation 3. On the quality of the product design	1. Reducing costs (economical use of resources). For example-involve students in development 2. Sponsor's interest 3. The use of free software
3	The dynamic nature of the development of the hardware and software	1. On a technical problem 2. On the configuration of the project	1. The point displacement of decision-making to the maximum possible date 2. Creation of strategic planning services
4	Displacement	1. On a technical problem 2. On the plan of the project 3. On the budget of the project 4. On the project team 5. On the possibility of the project	1. Information to reduce uncertainty 2. The use of project management tools under uncertainty
5	Difficulties formalization formulation of the problem in the implementation of programs of academic mobility, and program management processes and of academic mobility	1. The quality of the product design 2. The quality and value management	1. Uncertainty and incomplete specification 2. Lack of value in the management of projects

5. Conclusion

It is shown that traditional approaches to solving the problems of academic mobility management applications to integrate the process of setting objectives and planning projects. But due to the complexity of academic mobility programs to solve these problems without decomposing it into components that can effectively manage quite difficult. Therefore, the main idea this paper is that an increase in the efficiency of the university on the basis of a possible application of rational structuring of academic mobility programs. Distinguished and analyzed the main objectives of structuring programs of academic mobility. The structures that improve the effectiveness academic mobility programs, organizational structure, the structure of the results of academic mobility programs, program management structure of academic mobility. In the future, these structures will form the basis of a system of academic mobility programs.

Therefore, at this stage of the study the questions of human resources management to achieve the best results remain open. Namely to obtain maximum effect from the labor of the project team, which in turn depends on the impact made on the human resources. Therefore, for effective project management we need to learn how to manage a variety of influences (information) on the project team. And the information is needed for each project member, as a condition and means of their work for the project. We must not only develop appropriate methods, but also generate impacts on human resources (project team) so that it took the best decision. Many local and foreign scientists consider issues of solving risk management, conflicts at enterprises and proposed various

solutions to it. But these approaches are not suitable for all projects. To solve the problems in the influence management in projects (through the use of non-forceful methods of interaction) we should gradually change the behavior of the object or objects of interaction. Motivating the team members as an interaction objects, applying to them non-forceful methods of interaction is possible without threats, intimidation or coercion to change their behavior and get positive results. Therefore the use of non-forceful methods of cooperation projects can successfully complete the project with optimal use of resources and time. Deviations arising in the projects are often a result of the negative impact of project features. But deviation is not the result of direct influence on the project. Often the impact on human resources in project leads to new information that received in the course of implementation and does not meet the initial information that leads to other administrative actions in projects. Identifying measures changes in the information environment of the project can do the assessment of projects impact. Thus, we can highlight the universal nature through which you can measure any impact on the project-information. As the information environment determines the ratio of project members in their development to management decisions, etc., you can apply for this measurement the mathematical apparatus of non-forceful interaction. After all, it is pretty simple and easy to build decision support systems in project management and in other subject areas.

The results suggest that the use of the basic provisions and the aid of academic mobility models, interaction fuzzy statement opens fundamentally new opportunities for developing models of integrated facilities management representation in projects to describe them as phenomena. In various project management tasks of information indicators will have specific treatment. Their use allow for the natural mechanisms of perception and action of the individual (project manager, project management team, stakeholders) as entities of the Universe. Taking into account all of the above we can be argued that the theory of non-forceful cooperation in future will be widely used not only in the management of human resources projects but in social managing interaction of people in general. This in turn deserves attention in the theory and further research.

Academic mobility is being implemented to: improving the quality of higher education, improving the efficiency of scientific research, improving the competitiveness of University graduates on the national and international markets of educational services and labor, the enrichment of the individual experience of participants of educational process relative to other models of creating and disseminating knowledge, the involvement of the world intellectual potential of the national educational process on the basis of bilateral and multilateral agreements between partner institutions, the establishment of internal and external integration relations, harmonization of educational standards of partner institutions. The main types of academic mobility are: speed mobility-teaching in higher education, different from the permanent place of study participant in the educational process, with the aim of obtaining degrees of higher education, as evidenced by the document (documents) on higher education or degree higher education two or more higher education institutions; credit mobility-teaching in higher education, different from the permanent place of study participant in the educational process, for the purpose of obtaining ECTS credits and/or relevant competencies, learning outcomes (without obtaining ECTS credits) will be recognized as a higher education institution permanent school domestic or foreign participant in the educational process. The total period of study for such participants to programs credit mobility remains unchanged. Forms of academic mobility for the participants of the educational process, receiving educational degree at bachelor, master and doctor of philosophy at universities, the training programs of academic mobility, language training, research internship.

References

- Altbach, P., Reisberg, L., & Rumbley, L. (2009). *Trends in global higher education: Tracking an academic revolution*. Report prepared for the UNESCO2009 World Conference on Higher Education, Paris: United National Educational, Scientific, and Cultural Organization.
- Altbach, P. G. (2007). Introduction: The underlying realities of higher education in the 21st century. In P. Altbach, & P. Peterson (Eds.), *Higher Education in the New Century: Global Challenges and Innovative Ideas*. Rotterdam/Taipei: Sense Publishers.
- Becker, R., & Kolster, R. (2012). *International student recruitment: Policies and developments in selected countries*. Netherlands: Nuffic.
- Bhandari, R., & Blumenthal, P. (2013). *International students and global mobility in higher education: National trends and new directions*. International Studies.
- Bridges, D., Juceviciene, P., Jucevicius, R., Mclaughlin, T., & Stankeviciute, J. (Eds.). (2014). *Higher education and national development: Universities and societies in transition*. London: Routledge.

- Bushuyev, S., & Bushueva, N. (2010). Project Management. In *Fundamentals of professional knowledge and competence assessment system of project managers* (p. 208). National Competence Baseline.
- Choudaha, R., & Chang, L. (2012). *Trends in international student mobility*. New York: World Education Services. Retrieved from <http://www.uis.unesco.org/Library/Documents/research-trends-international-student-mobility-education-2012-en.pdf>
- Deem, R., Mok, K., & Lucas, L. (2008). Transforming higher education in whose image? Exploring the concept of the “World Class University” in Europe and Asia. *Higher Education Policy*, 21, 83-97. <https://dx.doi.org/10.1057/palgrave.hep.8300179>
- Dirlik, A. (2012). Trans nationalization and the university: The perspective of global modernity. *Boundary 2*, 39(3), 47-73. <https://dx.doi.org/10.1215/01903659-1730617>
- Dobbins, M., & Knill, C. (2014). *Higher education governance and policy change in Western European*. Retrieved from <http://www.palgrave>
- Dobbins, M., Knill, C., & Vögtle, E. (2011). An analytical framework for the cross-country comparison of higher education governance. *Higher Education*, 62(5), 665-683. <https://dx.doi.org/10.1007/s10734-011-9412-4>
- Forsberg, K., Mooz, H., & Cotterman, H. (2000). *Visualizing Project Management*. John Wiley & Sons Inc.
- Igorchenkov, O., Lisitsyn, O., & Kataev, D. (2012). Optimization of information management in product design management system. *Management of Complex Systems*, 13, 28-31.
- Mazur, I., Shapiro, V., & Olderogge, N. (2001). Project Management. In *Textbook for Universities*. Moscow: ZAO Publisher Economy.
- Pherali, T. (2012). Academic mobility, language, and cultural capital: The experience of transnational academics in British higher education institutions. *Journal of Studies in International Education*, 16(4), 313-333. <https://dx.doi.org/10.1177/1028315311421842>
- Qiang, Z. (2003). Internationalization of higher education: Towards a conceptual framework. *Policy Futures in Education*, 1(2), 248-270. <https://dx.doi.org/10.2304/pfie.2003.1.2.5>
- Ramirez, G. B. (2014). A world of brands: Higher education and the emergence of multinational quality franchises. *Quality in Higher Education*.
- Streitwieser, B. (Ed.). (2014). *Internationalization of Higher Education and Global Mobility*. Oxford, UK: Symposium Books.
- Teichler, U. (2009). Internationalization of higher education: European experiences. *Asia Pacific Education Review*, 10(1), 93-106. <https://dx.doi.org/10.1007/s12564-009-9002-7>
- Van der Hijden, P. (2012). Student mobility in Europe: Recent trends and implications of data. In P. Scott, L. Vlasceanu, & L. Wilson (Eds.), *European higher education at the crossroads: Between the Bologna process and Springer* (pp. 377-386). National reforms.
- Wells, A. (2014). International student mobility: Approaches, challenges and suggestions for further research. *Procedia-Social and Behavioral Sciences*, 143, 19-24. <https://dx.doi.org/10.1016/j.sbspro.2014.07.350>
- Yamini, M., & Ben, A. Y (2013). Implementation of the Bologna process in Israel’s higher education system. *Dapim*, 55, 177-197.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).