APPLICATION OF PROJECT MANAGEMENT METHODS ON TEACHING BUSINESS MODULES FOR STUDENTS IN HIGHER EDUCATION INSTITUTIONS

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Abstract. Purpose of research – the current review paper is aimed to provide with results of review of applied methods of Project Management in teaching business disciplines and "Project Management" as a separate course in higher educational institutions and share this experience results with the interested stakeholders.

Methodology of research is literature review on topic via seeking recent scientific publications on contiguous themes such as «Project Management methods for teaching», «Innovation methods of teaching» and «Application of Project Management in Higher Education». Moreover, quantitative methodology in the form of survey was chosen to strengthen the research.

The relevance of research is innovative techniques and approaches of teaching at higher institutions due to rapidly changing environment and corresponding amendments made in education industry and its normative regulations (e.g. including blended learning as widely spread practice in some Kazakhstani educational system).

The originality / value of research is confirmed by lack of scientific research made on project management approaches applied to teaching process and how the fundamental knowledge and perception of the subject could be easily understood by listeners.

As findings of this paper, the obtained data is provided on students' perception and feedback on project management-and business-related modules. That survey results show how effective and helpful were the applied methods of teaching the subject which allows authors to analyse the obtained and use them to improve the quality of study process.

Keywords: project management, teaching project management, project-oriented study, IT management.

Аңдатпа. Зерттеу мақсаты - Бұл шолудың мақсаты – жоғары оқу орындарында бизнес пәндерін және «Жобаларды басқару» жеке курс ретінде оқытуда қолданбалы жобаларды басқару әдістеріне шолу нәтижелерін ұсыну және осы тәжірибенің нәтижелерімен мүдделі тараптармен бөлісу.

Таңдалған зерттеу әдістемесі «оқытудағы жобаларды басқару әдістері», «оқытудың инновациялық әдістері» және «жоғары оқу орындарында жобалық менеджментті қолдану» сияқты байланысты тақырыптар бойынша соңғы ғылыми жарияланымдарды іздеу арқылы тақырып бойынша әдебиеттерге шолу болып табылады. Сонымен қатар, зерттеуді күшейту үшін сауалнама түріндегі сандық әдістеме таңдалды.

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Зерттеудің өзектілігі - қоршаған ортаның тез өзгеруіне және білім беру саласына және оның ережелеріне енгізілген сәйкес өзгерістерге байланысты жоғары оқу орындарында оқытудың инновациялық әдістері мен тәсілдерінде (мысалы, кейбір қазақстандық білім беру жүйесінде аралас оқыту кеңінен таралған тәжірибе ретінде).

Зерттеудің жаңалығы - оқу процесінде жобалық басқару тәсілдері тақырыбы бойынша көптеген ғылыми зерттеулердің жоқтығымен және пән бойынша іргелі білім мен қабылдауды студенттердің қалай оңай қабылдауы мүмкін екендігімен расталады.

Осы жұмыстың қорытындысы ретінде, алынған деректер студенттердің жобаны басқару және бизнеске қатысты модульдер туралы қабылдауы мен кері байланысы туралы берілген. Сауалнаманың нәтижелері пәнді оқытудың қолданбалы әдістерінің қаншалықты тиімді және пайдалы болғанын көрсетеді, бұл авторларға алынған мәліметтерді талдауға және оларды оқу үдерісінің сапасын жақсартуға мүмкіндік береді.

Түйін сөздер: жобалық менеджмент, жобаларды басқару тренингі, жобаға бағытталған оқыту, IT менеджмент.

Аннотация. Цель исследования направлена на предоставление результатов обзора прикладных методов преподавания бизнес-дисциплин и «Управление проектами» как отдельного курса в высших учебных заведениях и разделение опыта преподавания авторами данного предмета.

Выбранная методология исследования представляет собой обзор литературы по теме путем поиска последних научных публикаций по смежным темам, таким как «Методы управления проектами в обучении», «Инновационные методы обучения» и «Применение управления проектами в высшем образовании». Кроме того, для усиления исследования была выбрана количественная методология в виде опроса.

Актуальность исследования заключается в инновационных методах и подходах преподавания в высших учебных заведениях в связи с быстро меняющейся средой и соответствующими изменениями, вносимыми в образовательную отрасль и ее нормативные положения (например, включение смешанного обучения, что получило широкое распространение в казахстанской образовательной системе в результате пандемии 2020 г.).

Оригинальность исследования подтверждается отсутствием большого числа научных исследований по теме подходов управления проектами в процессе обучения и как фундаментальные знания и восприятие предмета могут быть легко восприняты слушателями.

В результате этого исследования получены данные об обратной связи и отзывах студентов о дисциплинах, связанных с управлением проектами и бизнесом. Результаты данного опроса показывают, насколько эффективными и полезными оказались применяемые методы преподавания предмета, что позволяет авторам анализировать полученные данные и использовать их для повышения качества учебного процесса.

Ключевые слова: управление проектами, обучение управлению проектами, проектно-ориентированное обучение, менеджмент в ИТ.

Introduction

Project management (PM) has become a part of prevalent business sectors nowadays. Its frameworks and techniques have been established from traditional to innovative ones [1]. Technological progress has huge impact on PM and its tools too. Moreover, some of business wish not to formalize PM approach applied in the business, and, as a result, most of them lead to project failures or lack of time, budget or schedule. According to C. Austin et al., formalities of PM approaches are widely incorporated in such industries as construction, healthcare, information technology but not in higher education [2]. As for education industry, PM approaches could be successfully applied in both management and teaching process. Thus, relating to the last, purpose of this research is to provide with results of review of applied methods of Project Management in teaching business disciplines and "Project Management" as a separate course in higher educational institutions and share this experience results with the interested stakeholders.

For the purposes of the research, the chosen methodology is literature review on topic via seeking recent scientific publications on contiguous themes such as «Project Management methods for teaching», «Innovation methods of teaching» and «Application of Project Management in Higher Education». Moreover, quantitative methodology in the form of survey was chosen to strengthen the research.

To deliver project management to students as a separate knowledge in more accessible way authors believe that the application of project management innovative approaches, tools and techniques would escalate significantly the students' perception and understanding of this module if tutors apply them while giving particular tasks in seminar classes. According to G. Levina, the traditional approach in professional education is organized based on method of learning while project approach of education is about establishing, «arising» of knowledge

during the process of realization of project development itself [3].

Moreover, the COVID-19 pandemic has extremely affected the educational system and traditional methods of teaching. In few cases the lectures might be substituted by online lectures which saves time for both instructors and students. However, according to personal experience of authors, the level of students' involvement into the subject could significantly decrease.

The paper consists of several chapters. The first chapter is mostly about known PM approaches. The next chapter is literature review, how research on teaching methods of PM were carried out in different universities and the obtained results. The last chapter is about personal experience of paper authors while teaching project management.

Materials and methods

For this research, literature review of recent publications on topics which may should cover topics such as "Project management in education", "Innovative approach in teaching", "Application of Project Management in Higher Education", "Business education". Additionally, to make the research more accurate and evidence-based on authors' teaching experience and result of continuous interaction with students at Astana IT University (AITU), the survey results were introduced which are usually conducted in the end of each trimester to see the overall level of students' satisfaction on studies and its major components. The results of survey allow instructors and lecturers of AITU to receive feedback to have a room for improvement in their teaching methods and approaches, materials prepared for lectures and practice classes, criteria used for assessment and, perhaps, adjust towards the needs and wants of students as main stakeholders in educational process.

Literature review

Project management approaches applied in teaching

First of all, authors would like to outline what is project management approach and general types of them known in PM area and how they are incorporated

in teaching methods at educational institutions. The next chapter would be about how PM is interpreted in education system and which PM approaches are most applied in teaching.

Project management approach includes means, techniques, different philosophies and frameworks that are applied to deliver the project during all lifecycle stages. There are known several types among of which the most applicable in most industries are: Agile, Waterfall, Scrum, Kanban [4]. Mentioned above philosophies and frameworks could be applied to education area both in management and teaching itself, especially for business and management related students.

However, study process is not limited to these approaches and methodologies. Since the trends in pedagogy and education have been changing rapidly due to the world circumstances (e.g., COVID-19 pandemic), innovative techniques and methods of teaching arise and are successfully being implemented to teaching process. One of them could be online learning and its derivative - blended format. As mentioned above, the recent disease that had occurred all over the world forced the education system to move forward along with technological progress. Communication software solutions such as Zoom, Microsoft Teams, etc. became vital tool for most business and got their development and improvement as well since recent events required to update the applications and add more features and opportunities while users meeting online. For instance, in education tutors had to see the presence and level of interest of students at lectures by seeing more faces during online lesson. In other words, lecturer could see more windows with students' images on the other side of screen. Especially, it was crucial during conducting online examinations for students which could transmit the images in high quality and less noises. Thus, since agile philosophy is applicable to the challenges of business environment, we could call the pandemic case as an example of agility.

Another approach would be connected not with the format of teaching, but with the given material to students to understand within the topic. The method of

business cases is quite new to teaching. According to Association for Project Management (APM), «a business case provides justification for undertaking a project, program or portfolio. It evaluates the benefit, cost and risk of alternative options and provides a rationale for the preferred solution» [5]. Thus, the goal of current PM approach in teaching is to make students to play a role of real project manager and create their own product based on lectures and their understanding of discipline. It is worth mentioning that there is no or almost no input data on the initial stage except main goal and means for the activity [3].

Case study approach is also quite popular type in teaching business disciplines. That method allows students to critically analyze the given scenario, to work individually or in teams which also develops both types of working, model the situation and evaluate the case from different perspectives and find solutions to particular problems. Moreover, solving case studies helps students to consolidate given knowledge on particular topic or issue; define weak gaps of discipline and work them out.

The last approach that would be discussed in this article is using games the aim of which to teach, but not entertain the listeners. According to A. Schmid, M. Schoop, game-based approaches become popular among students as means to study since they have more motivational power and opportunity to receive feedback [6].

Project management in education
Project management as a separate university degree program has become quite recently. Often it is offered as a single course, series of practice class or a part of some degrees such as technical engineering or construction. Like in medicine or design domain, PM faces challenges in learning a practice, it needs to solve the problems connected to «teaching more or less standardized practices» via best practices, tools and techniques for reaching a final result of product uniqueness [7].

Situation with PM as a separate degree is historically proven since PM was established as practically oriented field between 1950s and 1960s. At that time, PM was not taught at educational institutions.

Therefore, practitioners started to find their own structures as the International Project Management Association (IPMA), the Project Management Institution (PMI) [8]. Then, they shared best practices and tools known in PM and standardized procedures into so-called Books of Knowledge (BoK). Later, it became a foundation for certification systems of PM. Usually certification consist of tests based on BoK definitions and assessment of PM expertise of examination taker. Thus, such certification procedure became base for training professionals and proof of their competence. As a result, experience is the main tool to best practices in PM [7]. On the other hand, since certification and high instutialization of PM have established now, they lead to low flexibility. It means reluctance to changes and critical perspectives. Therefore, they have low impact on education practices [7].

According to Egginton, research on PM education is focused on methods and techniques of practice transfer into course format and further development of expertise or maturity of project managers [9]. There is a difference between classical and critical approaches in PM and how they are taught in education. The first approach means finding ways to simplify and divide projects into piles for easy management of them while the second type is concentrated on thorough study of project and defining the level of complexity. Therefore, it is rather challenging to include them into study curriculum. At the same time, most tutors of PM modules create tasks or activities aimed to critically analyze the given issue or case and make students think of its complexity [7].

Another point for project-organized and problem-oriented teaching is considered to be «an effective means of improving the quality of specialists training» [10]. Authors of research claim that by using this approach of teaching students have higher involvement in the subject. However, the challenge occurs in the part of assessing overall project complexity since it is connected to the level of maturity of students and their readiness to perceive the case. Also, while working in teams all members may not take the responsibility in full to carry out their part to work on. Therefore, the workload of particular students rises significantly during the given

time for the task [10].

Even students gain new skills when they work on planning independently, sometimes tutor is not able to examine the contribution of each member of a team. As a result, team gets overall one grade, but not individually which is not fair in some sense. While working on projects, students also gain new skill of analyzing systematically. From the tutor perspective, it is more time consuming than classic lecture preparation and seminar organization. Working in teams become familiar thing for students and lecturer could have some insights obtained from students brainstorming [10].

It is worth mentioning that project management is not only project planning and scheduling, but also involves activities connected with controlling ongoing processes of project during its inception until end of exploitation, in other words all stages of lifecycle. The same tendency could be observed from different university curricula – the accent is made on project planning and use of software such as Microsoft Project for these means rather than monitoring and controlling [11]. Therefore, authors claim that practical value of obtained theoretical knowledge about project management is vital.

According to the paper, students at Victoria University (Australia) have module called «IT Project Management» that is compulsory for postgraduate students of the «Master of Business» degree and elective for other business-related programs. The curriculum for the current module consists of lectures and workshops. Assignments are given for students to work in teams where they solve cases by answering questions and deliver the results in form of oral presentation. The format of assignment is designed to simulate the case and allow students to become real project managers and use Microsoft Project for tracking the project progress and make changes if required so. Authors state that the aim is to provide students with cases of enough complexity that it is not quite easy to accomplish and at the same time could be solved in the given time. Moreover, the assignment is executed in real-time so that the last four weeks of semester the students could briefly present their progress in the beginning of lecture for 10 minutes («project meeting»). By this, tutor

is able to outline the project changes over the past week. Authors claim that such sessions allow students to simulate how project managers work in real labor conditions. Via playing certain roles in teams, students know about scheduling, budgeting and have understanding of right usage of special software [11].

In the end of course, the students took part in survey about how satisfied they were on the course considering the given format of mixed lectures, workshops and assignment in the format of cases. Majority of responses were positive mentioning the work with software. As a result, the taught course of project management shows that students have higher involvement in the study process when the format of classes is non-traditional. Including «online work enabled listeners to engage in the material in novel way». However, authors of research say that there is a room for challenge when it comes up to creating exercise, giving feedbacks for students and giving support after their submission of tasks [11].

Another similar to previous study was conducted at University Kuala Lumpur Malaysia Institute of Information Technology (MIIT). According to I. Ibrahim, Project Management is compulsory discipline for students of Information technology faculty. The challenge of teaching subject is in its syllabus that is mostly theoretical and therefore is unattractive for students [12]. As a result, instructors at MIIT chose the method including mixed theory in the form of lectures and questions afterwards, computer assignments applying software, and final project to defend where students could perform the obtained knowledge. However, author claims that the success of chosen method is subjective due to the number of participants, level of their knowledge and awareness of subject, instructor' approach and other factors. For purpose of better understanding of Project Management, the students should have prerequisites done such as industrial placement performed and the final year course takers are eligible [12]. Moreover, the students' academic performance is also taken into consideration since it would affect the general level of listeners and their in-class performance. While taking the course of PM, students would have enough

theoretical base and expertise level for conducting their research and developing final projects. Although they supervised by tutors, sometimes the last also could not have enough time or resource to help a student. Thus, obtained knowledge would allow the student to work on his/her work on their own. By this experience, final year students are facilitated to finalize their works and graduate from university and have an experience of conducting real case of final projects [12]. Author says that it is «win-win» situation for student and tutor/supervisor. As for students, they would know how to anticipate some results while planning the preliminary research for final projects and the projects done in the end. And as for instructors, they could observe how students' progress on their capability and provide with help if needed so [12].

In MIIT, project management course is assessed via coursework (60 %) and final exam (40 %). The coursework is a mixture of project proposal, project folio, presentations, final projects, groupworks on tasks [12]. In the end of term, students were asked to fill in the survey for assessing the given material of the module. As a result of it, majority of respondents said that the applied approach for module teaching had positive impact. Students commented that they liked the format where knowledge is presented as a «guideline in developing project processes» [12]. While creating the module syllabus, author said that it was expected students would be more involved into project activities and the goal was to «provide students with experiential exposure for their own benefit» [12]. To sum up, the study showed that combined multiple methods of teaching is quite successful and beneficial for instructors and students as it facilitates processes of teaching and learning.

Another research has been done in order to answer the question if game-based learning could be more effective for educating project management than other approaches. For this purpose, the students of a university in Hong Kong were offered to have module of «Technology PM» as an elective at postgraduate engineering level [13]. The number of students was 50 where majority of them had engineering background whereas others either in business or social science. The game designed in syllabus of this course was the simulation of new product development from the scratch till the stage of closing of project. The project had clear goals to achieve, constraints to mind and other special criteria that should be followed by students [13].

While working in teams, students had to go through few lifecycle stages. At first stage, teams had to develop the idea, objectives of product and strategy of working according to given time, budget and specific requirements to flying object which is the product. Later, they had planning stage, execution/monitoring stage and closing stage. For assessing the module, students had to submit: a) team report where they documented all action undertaken and results achieved; b) peer evaluation for assessing each other's performance during the tasks and final product; and c) individual reflection and assessment where they gave personal feedback for the task and learning insights. Moreover, instructor had tested the students twice for assessing their performance – in the midway and in the end of course [13].

As a result, the applied project-action learning (PAL) method was quite satisfying for most of class. In the feedbacks students mentioned that they learnt PM by doing real project in simulation. It did not much matter for them how good or bad was the product, the process of working on the product itself was more vital for students. Also, the competitiveness of teams motivated to perform better within their small groups and go through all stages of lifecycle by discussing with mates.

Analysis

Application of project management methods of teaching at Astana IT University for «Business and Management» programme students: experience of authors

The students of «Business and Management» at Astana IT University study several project management- and business-related disciplines during three years for Bachelor's degree as their core and elective modules. They include fundamentals such as «Business Administration», «Management»,

«Principles of Economics», «Technological entrepreneurship» as the cores; «Design of business processes», «Quality Management», «Financial Management» as the electives. Further studies include «Project Management», «Business Analytics», «Change Management», «Agile Management in Virtual Environments», «Management of IT Operations», «IT Management and Audit», «Management of IT Risks» and «Business Project Simulation» [14].

Authors of the paper, having work experience in real business of different areas (space industry, higher education, construction), taught most of the previously mentioned modules using project-oriented approach. They assume that it is much more compelling and absorbing for students to be involved in study process rather than giving lectures and written assignments. Lectures are designed in combination with fundamental theory and examples from real industry. Tutorials are mostly for developing students' teamwork skills where students split into groups of 3-4 people and solving cases, practicing the theory on real examples. Moreover, giving real business cases, especially from local Kazakhstani big companies makes students think of how real industry is working within the framework of project management and how major solutions are made.

To consider a real example, the module «IT Project Case» is taken. This subject is studied by 2nd year students at AITU and does not require a prerequisite. It is designed for information exchange relating different IT projects, their realized activity, results achieve, lessons learnt, conclusions and recommendations. Case studies of IT projects could assist as examples for solving similar issues and opportunities and for excellence replication [14].

Syllabus of the module covers such topics as «Features of business case in IT industry», «Project management in IT industry», «Stakeholders of the project», «Budgeting the project», «Communication in projects», «Procurement», «Risk management in projects», «Quality management in projects» and «Change management». Lectures were designed for introducing into subject whereas tutorial lessons were for solving particular business cases on corresponding topics. Majority of cases were taken from business cases collection called «Bolashak business cases» [15].

As author states in [15], «it consists of business cases that represent business activities of companies included in «Baiterek» National Managing Holding» JSC» and private companies-startups that work with structures of the Holding». Cases cover such topics as corporate governance, strategic planning, marketing, corporate finance, change management, PR, etc. Authors claim that this business cases collection book is contribution to bridging the gap between teaching theory and business practice [15].

The implemented project-oriented method for this module showed that majority of students had more involvement to the subject of each case. The given time of 5 hours a week of practice classes allowed students to read thoroughly the business case, discuss with their teammates the details, brainstorm on their answers to given questions and present to class. Such scenario encourages development of such skills as teamwork, team management (assigning roles), planning, system thinking, decision making and oral presentation.

However, despite the positive feedback of students on the course, some challenges were experienced. Since this module was taught for the first time for the first students' intake of 2019 at AITU, the module had to be held online due to Covid-19. As a result, according to authors opinion, the format was not really suitable for such case study courses. The inability to observe students' work in teams, their discussing and sharing ideas on topic, the level of involvement of each member of a team escalated difficulty of grading students' performance in class and assignments. On the other hand, lectures were quite comprehensive, but less interactive with listeners which also created some complexity in teaching the subject.

Another module that has been taught to students of AITU is "Technological Entrepreneurship" which is compulsory to each educational program. The course is devoted to the study of the principles and methods of organization, planning and control at the enterprise, the economic analysis of the production process and the

evaluation of its results, the organization and control of the production process, the business plan of the graduation project. Entrepreneurial skills and leadership qualities are considered [14].

The course is designed for teams to create their own product/startup and its main parts: business model, competitors' analysis, Minimum Viable Product (MVP) creation and cost benefit analysis. The lectures cover such topics as: Fundamentals of Technology Entrepreneurship, business idea generating, marketing, business values, business model canvas, competitiveness, MVP and business finance. During practice classes students are creating their startups/products step by step and submit written assignments delivered by parts. By the end of trimester, they defend their final MVPs, submit final reports on them and present to class.

"Project Management" course is also a compulsory module not only for students of IT Management and IT Entrepreneurship majors at last third year of studies (latter was introduced as a major in 2021 study year and have several modules differences with IT Management), but also for other IT oriented specialties too.

According to the course description, "the discipline in which the structure, objectives, project plan started in the organization will be considered. Also, the types of projects, financing and management are considered" [14]. This discipline is 4 credit with 2 hours of lectures where basic knowledge is introduced and 2 hours of seminar classes on which students have to design and develop projects according to PM framework within given scenario which may change from one academic year to another.

For the last experience of teaching PM by authors if this paper, students of Cybersecurity educational programs had to work in groups of 2-3 people and simulate the project of the city census by orienting for the last state's census. Some limitations on the scope of project, budget and schedule were given for the purposes of close to reality scenario to manipulate with. The assessment type was one whole project simulation split up for 4 deliverables as written group assignments with class presentations. As for final examination, students had written exam on theory.

Results and Discussion

In opinion of authors, the mentioned modules above (IT Project Case and Technological Entrepreneurship) should be more project- and practice-oriented, may include real business cases, especially local ones due to the specifics of Kazakhstan's economics and demands of it. It is worth mentioning that such modules involve not only project planning, scheduling, but also it requires control over ongoing processes during project's lifecycle and its main milestones [11].

The online format of IT Project Cases in its first implementation enabled students' skills to adapt to new changes as business circumstances as well as to develop self-study skills. It seemed that they preferred to analyse real cases from Kazakhstani market rather than solving business cases of business that they may have heard of, but have never experienced their product. Moreover, by the time they start this particular course, students have already learnt about principles and fundamentals of Project Management which means that they could apply their obtained knowledge on the subject to project cases given.

However, "IT Project Cases" discipline had been withdrawn from curriculum of students starting from 2021 intake due to the solution of the Academic council where the members are both teaching staff of the university and potential employers from the market.

As for Technological Entrepreneurship, the main challenge for students was to choose the topic of startup and its technical realization in the form of website/mobile app. Some of them wished to change the topic due to the lack of required information or lack of skills for development of product.

For both taught courses authors think that another challenge would be providing objective marking of students since the technical realization for Computer Science and software development-related students would be an easy task, and Media Technologies and IT Management students, for instance, may face some difficulties. Therefore, tutors would take into account their capabilities and help to navigate while creating prototypes of their final products.

If Project Management course to be analyzed, as a result of this course, vast majority found this course exciting and novel since the Cybersecurity students were facing PM foundations for the first time. Additionally, they mentioned that most likely they could apply obtained knowledge altogether with Technological Entrepreneurship classes experience in the current and prospective careers in order to grow from developer positions to Product or Project Managers.

As it was mentioned in the beginning of paper, the survey was chosen as a methodology for this research. The Department of Quality Assurance of Astana IT University provides all students with survey in the end of each trimester for improving quality of teaching and getting their feedback on a course. The survey includes questions on teaching methods, the quality of provided materials by tutors, grading, feedback, communication, instructor's preparedness and time, language of instruction (must be English). For confidentiality purposes, the names of instructors were removed from the survey.

Table 1 – Results of university survey on teaching quality of 2nd trimester, 2021-2022 study year

№	Teaching methods	Quality of the materials provided	Quality of grading	Quality of feedback	Quality of communication	Quality of instructors' preparedness and time	Course is conducted in English
1	96	95	98	93	98	98	9
2	96	95	98	93	98	98	10
3	98	98	96	97	98	98	10
4	87	85	83	82	82	82	8
5	97	97	95	97	97	94	10
6	92	91	89	89	89	88	9
7	92	93	98	96	91	95	9
8	80	85	83	85	85	88	10
9	65	79	80	74	76	76	8
10	70	70	70	70	70	70	6
Average	**87,3**	**88,8**	**89**	**87,6**	**88,4**	**88,7**	**8,9**

Note: the data introduced has been collected by the Department of Quality Assurance of AITU

As shown in Table 1, the average mark for teaching methods was 87,3 out of 100, the quality of the materials provided – 88,8, the quality of grading – 89, the quality of feedback – 87,6, the quality of communication – 88,4, the quality of instructor's preparedness and time – 88,7, the course conducted in English – 8,9 out of 10. The given results on survey are selected from all teaching staff containing only tutors and instructors who teach «Business and Management» students. Thus, it could be assumed that the teaching methods and all accompanying details were well satisfied and have met the majority of students' anticipations.

Conclusion

To sum up, authors would like to show that project management approaches are successfully being implemented to various educational institutions and not necessarily to business related disciplines. As a result of literature review and conducted study, students are more engaged in class activities and studying process rather than traditional ones. However, this survey might be not as accurate as such due to the fact that the survey assesses only the instructor and how he/she knows well own subject, what tasks are given, how the assessment

is made and what criteria are used by teacher of specific course. Generally saying, the results are quite subjective and bias depending on personal communication built during the course between each student and instructor.

Therefore, authors claim that additional investigation as a survey or questionnaire should be made with the questions that relate not to the instructor as his/her job, but what a student thinks about the course, which improvements should be made in order to make this course more attractive and exciting for students to study in-depth later, i.e. take detailed and accurate feedback of the courses by students on the content and ways to escalate the quality of them. Based on gathered data and insights, further research shall be concentrated on the creating innovative methods of teaching of management and business-related subjects to students of AITU and approbation of them in the framework of curriculum of corresponding study programs by taking into account the majors students are studying and their prospective visions towards their careers or further studies for graduate degrees.

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ЖОҒАРЫ ОҚУ ОРЫНДАРЫНДА СТУДЕНТТЕРГЕ БИЗНЕС МОДУЛЬДЕРІН ОҚЫТУДА ЖОБАЛАР БАСҚАРУ ӘДІСТЕРІН ҚОЛДАНУ

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ПРИМЕНЕНИЕ МЕТОДОВ ПРОЕКТНОГО УПРАВЛЕНИЯ ПРИ ОБУЧЕНИИ СТУДЕНТОВ БИЗНЕС-ДИСЦИПЛИН В ВУЗАХ

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