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The Development of Good Practices in Cooperation With the Use of Educational Offer of Academic Centers for Employees of an International Corporation

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The paper describes the genesis of the industry's needs for training employees whose main purpose is to stimulate ones to be more innovative. Responded to this demand, academic centers helped in the development of training strategies and concepts. The paper brought the closer concepts of training in range and effect that they have brought. An attempt was made to approximations, summary, and evaluation of programs that have been implemented in the framework of academic consortia, among governments founds, academic development, and companies competing in the regional and international telecommunication markets. Analyzed cases of such cooperation, for programs in which several people were involved, as well as beneficiaries of the projects in which were several thousand employees. Efforts made in these programs indicate good practice for those who would like to emulate or improve programs. Experiences that were collected and described in this paper are the ideal start for similar initiatives that may be taken without regard to the scale and location of economic participants.

Keywords: international corporation human resources standards, the highest rate of employment of university graduates, leaders of innovation, students in labour market

Creativity, contests on innovation, and common research projects of companies and universities can not only enrich educational offer and actively support students, but also motivate employees to achieve professional success, which nowadays is more important than education, graduation, or any training. The employers and universities who want to gain an intellectual, innovative, and creative advantage are interested in creating such standards of recruiting, motivating, and finding leaders of innovation that would not only give them an edge over competition, but also enable them to maintain top position in the market for a longer period of time (Marszałek, 2008).

The idea of the cooperation is anything but new; companies, local governments, and people in general have been always interested in it. Ways to make education effective have been sought for ever since the term of education was established. That knowledge is better absorbed via an experiment, practice, or a case study, it has been obvious for a long time as well. A teacher cannot only base on theory and a practitioner just on experience. Therefore, there have been different ways of stimulating by both government institutions and local authorities. One of the examples is a long-term project initiated by the Ontario Ministry of Environment

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(OME) which obliged teachers of technical subjects to foster the involvement of local business and industry in their curricula.

The table below presents a comparison between a typical curriculum in an academic institution and a training session for corporate workers (Barnett, Parry, & Coate, 2001) (see Table 1).

Table 1

Curricula Comparison Source: R. Barnett, G. Parry, and K. Coate Conceptualising Curriculum Change

Traditional curriculum	Modern curriculum
Focused on:	Focused on:
General knowledge	Utility knowledge (how to exactly do something)
Written communication	Oral communication
Personal education	Interpersonal education
Internal education	External education
Gaining basic skills	Gaining expert skills
Cognitive activity	Problem-solving activity
Understanding	Gaining information
Explaining concepts	Defining problems
Transmission of theoretical knowledge	Exchange of experience and transmission of working knowledge
Statement-based learning	Experiment-based learning

The Polish Telecommunications (TP) Equity Group has increased employee engagement in the innovation and production processes by introducing certain aspects of cooperation with academic centers. An additional advantage has been the acquisition of the best students and positive corporate image.

The main goal of this paper is to analyse the outcomes of introducing solutions from the innovative contests held from year 2002 to 2012 within the TP Equity Group. The work compares four subsequent editions of an innovative contest at the TP Equity Group with four examples of projects devoted to cooperation with academic centers, which are the following:

(1) “Your Perspective” program for students from the biggest universities in Poland;

(2) “The Land of the Rising Innovation” project prepared with the help of lecturers from the Institute of Psychology at the Jagiellonian University in Cracow, and in the years 2009-2011 processed from the IT (Information Technology) perspective by the CL S.A. company, which has so far provided TP with IT workshop systems;

(3) “Become an Engineer of the Future” project based on workshops, training programs, and industrial projects which involves cooperation between an academic mentor appointed by the Silesian University of Technology and an industrial one being a TP Equity Group employee;

(4) Mentor-like supervision over a TP Equity Group brand ambassador for the Silesian University of Technology.

Results of the research which are aimed to start a discussion about advantages and disadvantages of a contest as a motivation tool for students and employees are presented at the end of the paper.

Research Materials

The “Your Perspective” program is a number of initiatives undertaken by the TP Equity Group in the

years 2008-2013 in cooperation with the 16 biggest universities in Poland which resulted in:

(1) 103 trainee positions at the TP Equity Group;

(2) 122 workshops at universities in Poland;

(3) 141 TP Equity Group ambassadors (specially selected groups of students whose role is to inform their fellow students about the program, workshops, and job opportunities);

(4) 500 participants of the 11 Student Orange Club meetings;

(5) 2,320 workshop participants at the universities;

(6) 6,410 participants of the "Your Perspective" contest.

One of the results of the "Your Perspective" program was the development of new initiatives, such as "Innovations Farm"[1] or "Open Middleware 2.0 Community"[2], which enabled students and academics to exchange ideas about the latest trends on the IT and telecommunications markets during a series of workshops.

The "Land of Rising Innovation" is the name of the project which was carried out from April 2009 to January 2011 for the TP Equity Group (Doniec, 2012). Its curriculum had been developed on a basis of an innovative education method which constitutes an integrated system of several co-existing teaching forms, i.e., e-learning, virtual classes, and workshop lessons. The Creative Problem Solving (CPS) (West, 1997) was discussed as a heuristic method [i.e., experience-based techniques with a set of tips, but not an algorithm (Weber, 1984)] of a complex problem-solving approach which increases chances of finding effective and innovative solutions to a problem as well as of subsequent implementation of innovations (Amabile, 1996; Roffe, 1999). Workshops prepared by lecturers from the Jagiellonian University in Cracow were held with the use of the "blended-learning" method as two one-day stationary workshops and three six-hour e-learning sessions (Matusiak, 2008; Niecka, Orzechowski, Słabosz, & Szymura, 2005).

The project was financed from the Human Capital Operational Program which includes a contribution of 85% from the European Union (EU). The total budget provided for the project is 973,000 PLN. Thanks to the money, 408 people from 30,000 TP Equity Group employees were trained.

The "Become an Engineer of the Future" project has been carried out from October 2012 to the end of year 2015 and financed form the EU-funded Operational Program entitled "Human Capital. Higher education and science, strengthening and improving qualifications of the academic staff as well as increasing the number of graduates corresponding to the requirements of knowledge economy"[3]. Each workshop consisted of five six-hour sessions whose subject matter had been prepared together by the academic mentor and the industrial mentor. Until the end of 2015, about 224 full-time BSc-level IT students from the Faculty of Automatic Control, Electronics, and Computer Science of the Silesian University of Technology are supposed to take part in the workshops. The workshop initiatives have followed directly from the industry and included the implementation of IT instruments in the industrial manufacture of automatic equipment, automotive industry, IT, telecommunications, and other areas.

The table below shows the course of the initiatives undertaken by the TP Equity Group (see Table 2).

[1] Retrieved from http://twojaperspektywa.pl.
[2] Retrieved from http://www.tu.rd.tp.pl/portal/.
[3] Retrieved from http://www.zip.aei.polsl.pl/index.php/o-projekcie.

Table 2

The "Become an Engineer of the Future" Project

Year	2012	2013	2014
No. of student participants/subjects completed	8/2	4/1	4/1
Student's positive opinion of the company	0 of 8	4 of 4	?
No. of technical innovations developed	0	4	?

Note. Source: the author's analysis.

The course on the subject "Selection of Teletransmission System Alarms as Illustrated by the Network of Orange Business Service (OBS)" offered the students the following practical tasks:

(1) Configuration of a VPN (Virtual Private Network) network for an OBS customer;

(2) Assignment of an IP (Internet Protocol) address for the OBS router interface;

(3) Router configuration for an OBS customer with a view to constant monitoring of the service;

(4) Distribution of the Equant and the SEAiS (system records subscribers and network elements) databases for an OBS customer;

(5) Visit at the OBS Service Management Center (presentation of an access node and a scale model of a terminal equipment).

The second subject "Permanent Analysis of the Condition of the Telecommunication xDSL Service Named Business Everywhere" involved workshops on:

(1) Establishing connection in the VPN (FR) technology for an OBS customer;

(2) Establishing connection in the VPN (ADSL) technology for an OBS customer;

(3) Router configuration at the PE (Provider Edge);

(4) Router configuration at the CE (Customer Edge).

The third subject "Configuration of Access Devices for the IP VPN OBS Service" resulted in the development of a solution called "Automatic Configuration Generator" which makes it possible to automatically program the OBS telecommunication devices.

The fourth subject will be devoted to improvements to the Automatic Configuration Generator and an attempt to include the IP VPN OBS service into the process of establishing a distribution network.

Despite its limited scope, the project perfectly illustrates the process of a corporate image change. It could be easily observed how direct contact and cooperation influence the change of opinion about the company and its services. During the first class, students sat a test about telecommunication services they knew; however, they could not point out any. When asked a question, "Could you recommend any TP Equity Group service to your fellow students?", they promptly replied, "No". During the last class, the students were given the same test and the answers were completely different. They could name at least several TP Equity Group services and they strongly recommended them.

The Industrial Mentor Program has been the smallest and the most modest initiative compared with the ones presented above; it is meant for selected students of technical and economic majors from the biggest Polish universities. The project involves a subject-matter-related support offered by the industrial mentor, who is chosen among the TP Equity Group employees, to the brand ambassador at the university. The industrial mentor took part in a two-day training session which included such subjects as coaching, mentoring, and training; on the other hand, the student gained the knowledge concerning recruitment process, job counselling,

and self-presentation. Next, the mentor and the student together created a program for university open days which covered lectures, equipment presentations, and contests for the academic community.

Comparison

Generally speaking, the mode of learning theory through practice is widely appreciated. The development of modern forms of communication, such as teleconferencing, remote presentations, and problem-solving focused learning materials on the Internet, has obviously strengthened the relations between education and business (Alavi, Wheeler, & Valacich, 1995).

Many business-education cooperation programs of supporting and financing the education field have been successful within the EU. One of the oldest ones, carried out since late 1980s as a part of the Da Vinci project by the EUROPEA Association, has dealt with the revitalization of rural areas; its new edition is named "Coping with Challenges on Vocational Education and Training. Good Practices in Cooperation School-Business and in Entrepreneurial Competences Learning" (COPCHAVET)[4], and is aimed at agricultural and business schools, as well as at farms and farm-tourism companies.

In North America, the concept of "business-education partnerships" can probably boast the biggest number of scientific studies[5]. There have been attempts to classify and define areas of cooperation, law regulations, and strategies.

In case of Asia and Australia, scholars have proposed more radical terms of cooperation, scholarships, or trainings for students; they suggested that these aspects become a part of company's strategy and be carried out statutorily[6].

Not all scientists support the view that the business-education partnership is always successful, especially when taking ethical aspects into consideration. Companies manipulate their image only to gain measurable financial profits. The question of success is sometimes exaggerated and is mostly the only motivation that discriminates the terms of cooperation between business and education (Matten & Moon, 2004).

Results

Table 3 summarises the most important initiatives aimed at motivating employees of the TP Equity Group in terms of their undertaking and proposing innovative solutions.

All the projects and initiatives undertaken at the TP Equity Group are in close connection with the annual performance review as for every proposed and accepted initiative an employee gets points in the course of the evaluation process; authors of the best projects can even receive an additional bonus.

The supplemented TP Equity Group workshop offer resulted in improvement to the submitted innovative projects, which at first sight are not obvious when looking at Table 3. This is the quality of developed innovations. There are two parameters for each category in the years 2004-2006. For instance, in the category 1 (organizational improvements), in the year 2004, the number of submitted projects was 51 with 35 of these implemented next year, which means 68% effectiveness of the proposed solutions. In 2006, the comparison looks similar as there were 161 proposed projects and 107 accepted (66%), but only 15 projects among the

[4] Retrieved from http://europea.org/projects/copchavet/.
[5] Retrieved from http://en.wikipedia.org/wiki/Business-education_partnerships.
[6] Retrieved from http://www.asiaeducation.edu.au/aust_curr_strategy_landing_page.html.

accepted ones turned out suitable for implementation in the following year. The remaining 92 ones were accepted and classified by the committee accordingly: 36 projects as not having enough operational details and 56 as projects considered good but lacking an operational model in their implementation strategy. As a result, the real effectiveness rate of the proposed solutions in the year 2006 was only 9.3%.

Table 3

The Number of Projects That Were Proposed by Employees of the TP Equity Group for the Contests in the Years 2002-2012

Contests: proposed projects	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 (new formula)	2012
Category 1 organizational improvements	?/2	47	51/35	36/18	161/107	104	138	84	118	No data	144
Category 2 technical innovations	?/3	43	43/29	26/15	91/55	79	97	48	58	No data	106
Category 3 corporate image	?/1	30	27/5	21/2	79/17	71	87	42	49	No data	-
Category 4 services	?/2	45	38/5	43/7	81/19	88	108	86	130	No data	164
Category 5 BIS	No data	No data	No data	No data	No data	17	58	28	51	No data	69
Total number of proposed projects	?	165	159	126	412	359	488	288	406	578	483

Notes. BIS—idea of projects that use the second time. Source: the author's analysis based on data from the intranet[7].

The number of proposed and implemented solutions can be one of the indices; however, there are also measurable financial profits earned by the company and presented in the periodic reports for stock exchange investors or in the financial reports.

The art of creative thinking (Szmidt, 2008) is the way to develop the skills of devoid-of-stereotypes unconventional problem-solving, creative techniques, as well as of exploring, combining, and transforming creative tasks.

Conclusions

Below there are presented the most important conclusions regarding the projects:

(1) It is essential to support academic and industrial centers in their attempts of cooperation;

(2) For a company that has no research center, any forms of training or workshops disturb its production process which is the source of its profit;

(3) One benefit for a company is the possibility to avoid or reduce recruitment process, or outsource it to an academic center;

(4) In a period of economic slowdown, a company can limit forms and means of cooperation with universities;

(5) Cooperation with an academic center fosters innovation among employees;

(6) Effects of cooperation with academic centers translate into an increase in the number of ideas and innovations; however, quality and cost of implementation put these solutions at a disadvantage;

(7) Thanks to cooperation, the overall corporate image improves;

[7] Retrieved from http://ipk.centertel.pl/.

(8) Education as a non-profit activity requires subsidizing; thus, every form of well prepared, carried out, and eventually, summarized support is beneficial for both a school and a company.

References

Alavi, M., Wheeler, B. C., & Valacich, J. S. (1995). Using IT to reengineer business education: An exploratory investigation of collaborative telelearning. *MIS Quarterly, 19*(3), 293-312.

Amabile, T. (1996). *Creativity in context*. Boulder: Westview Press.

Barnett, R., Parry, G., & Coate, K. (2001). Conceptualising curriculum change. *Teaching in Higher Education, 6*(4), 435-449.

Doniec, R. (2012). The land of rising innovation: Active e-learning as an individual career path with the support of the European Community Funds. Proceedings from *the Second International Conference on Local and Regional Projects Involving Cooperation of Education, Business, and Local Government Sectors*. May 8, Katowice.

Marszałek, A. (2008). Building education and research consortia and cooperation between academia. *E-mentor, 4*(26), 4-9.

Matten, D., & Moon, J. (2004). Corporate social responsibility education in Europe. *Journal of Business Ethics, 54*(4), 323-337.

Matusiak, K. B. (2008). *Innovation and technology transfer* (expanded 2nd ed.). Warsaw.

Niecka, E., Orzechowski, J., Słabosz, A., & Szymura, B. (2005). *Creativity training*. Gdańsk: GWP.

Roffe, I. (1999). Innovation and creativity in organisations: A review of the implications for training and development. *Journal of European Industrial Training, 23*(4/5), 224-241.

Szmidt, K. (2008). *Innovation training*. Gliwice: Helion.

Weber, R. A. (1984). *Management: Basic elements of managing organizations*. New York: McGraw-Hill Inc.

West, M. A. (1997). *Developing creativity in organizations*. Hoboken: Wiley.