SOCIETY. INTEGRATION. EDUCATION
Proceedings of the International Scientific Conference. Volume II, May 27th - 28th, 2016. 223-230

THE CAREERS OF THE EDUCATION IN TECHNOLOGY GRADUATES

Henryk Noga
Uniwersytet Pedagogiczny w Krakowie, Poland

Abstract. *A very important indicator of the usefulness of studies is the graduates' career advancement. It indicates to what extent studies facilitate or speed up the professional career. The research concerned the careers of Education in Technology graduates and their professional adaptation. An attempt to assessment the quality of education has also been made. After graduation students are able to assess the quality of education and its impact on their lives and professional careers.*
Keywords: *academic education, Education in Technology, professional adaptation, quality of education, research.*

Introduction

Demographic decline, the growing difficulties in recruiting new students, the competition between universities, as well as a wide choice of university and degree course (often paid) makes the quality and relevance of education take on a new importance. Increasingly important are new and rational evaluation methods which take into account students' and graduates' assessment, their evaluation of the usefulness of studies, their lives and professional careers.

The studies of graduates are being carried by universities and other institutions such as: Graduate Careers Australia, Virginia Tech, Association of Graduate Careers Advisory Services and others.

Research on graduates' jobs and careers

The research was conducted in the region of Małopolska among graduates from Education in Technology at Pedagogical University of Cracow. The study included the citizens of Cracow and other cities and villages from the region. The study was conducted on a group of 100 graduates who completed the EiT course in 2014 and 2015.

The main objective of the research was to find answers to the questions: How the completion of Education in Technology course has affected the lives of respondents? What were the motives of studying precisely this course? Do graduates use knowledge gained at the university in their professional work? Do they work in their profession? How has their professional status changed after

DOI: http://dx.doi.org/10.17770/sie2016vol2.1379

graduation? Whether they would choose this field of study again, if there was such a possibility?

During the studies 40 % of respondents were professionally active (36 % were employed, 4 % was self-employed). Most of them were men (24 %). The remaining part of surveyed group was unemployed (6 %) and high school graduates (54 %). These indicators determine the nature of the university and ways of teaching. It is a course both for high school graduates who enrolled in full-time education or extramural courses, and for those professionally active who want to gain knowledge. The professional status of the graduates before starting the studies is presented in Tab. 1.

Table 1 **The professional status of graduates before starting the studies**

What was the professional status of respondents before starting the studies?	**Women**		**Men**		**Total**	
	(amount)	**(%)**	**(amount)**	**(%)**	**(amount)**	**(%)**
Employed	16	16	20	20	36	36
Unemploayed	2	2	4	4	6	6
Self-employed	0	0	4	4	4	4
High school graduate	21	21	33	33	54	54
Total	**39**	**39**	**61**	**61**	**100**	**100**

As illustrated in the Tab. 2., after graduation employment status of the respondents has somehow changed. Some of them, so far employed, has set up their own businesses; part of self-employed increased from 4 % to 8 %. Secondly, the share of the unemployed (unemployed and high school graduates) decreased from 60 % to 7 %. In general, the employment rate increased from 40 % to 93 %. It is worth noting that it is a high rate of employment among people capable of working in Poland, including people with higher education. The employment rate is very high according to foreign studies too: 78,5 % of 2014 computer science and IT graduates in UK were employed six months after graduation (*What do graduates do?*, p. 20), 35 % of 2014 Virginia Tech graduates were employed or self-employed (Post-Graduation Report: 2014-2015 bachelor's degree graduates), 81,9 % of surveyed Australian bachelor' degree computer science graduates were in full-time, part-time or casual employment four months after graduation (Guthrie, p. 12).

Table 2 **Change of professional status after graduation**

Has the professional status change upon completion of your studies?	**Women**		**Men**		**Total**	
	(amount)	**(%)**	**(amount)**	**(%)**	**(amount)**	**(%)**
Yes, I've found a job.	15	15	20	20	35	35
Yes, I got promoted.	3	3	13	13	16	16
No, I'm still unemployed.	4	4	3	3	7	7
No, I still have the same job.	9	9	17	17	26	26
I started my own business.	3	3	5	5	8	8
I have changed my profession.	5	5	3	3	8	8
Total	**39**	**39**	**61**	**61**	**100**	**100**

Every fifth graduate of EiT works in education, a similar number in small businesses and large corporations. Their own businesses runs 12 % of respondents. Research carried among bachelor degree's graduates in Australia resulted in entirely different outcomes: 63,6 % of full-time employed graduates were employed by large employers, 16,1 % by small employers and 15,4 % by medium ones (Guthrie, p. 9). The structure of EiT graduates' employment is presented in Tab. 3.

Table 3 **The structure of EiT graduates' employment**

Where are you currently employed?	**Women**		**Men**		**Total**	
	(amount)	**(%)**	**(amount)**	**(%)**	**(amount)**	**(%)**
Own business	3	3	9	9	12	12
Public service	5	5	4	4	9	9
Small business	8	8	13	13	21	21
Large corporation	7	7	15	15	22	22
Education	9	9	11	11	20	20
Others	6	6	9	9	15	15
Total	**39**	**39**	**61**	**61**	**100**	**100**

Respondents were asked whether their work is consistent with the completed course of study. Up to 45 % of them, more men (29 %) than women (16 %) answered that only partly. Only 19 % of respondents admitted that their work is consistent with the field of study (5 % of women and 14 % of men). 35 % of respondents do not work in their acquired profession. The results are presented in Tab. 4.

Table 4 **The consistency of work with the completed course of study**

Is your work consistent with the completed course of study?	**Women**		**Men**		**Total**	
	(amount)	**(%)**	**(amount)**	**(%)**	**(amount)**	**(%)**
Yes	5	5	14	14	19	19
Partly	16	16	29	29	45	45
No	18	18	18	18	36	36
Total	**39**	**39**	**61**	**61**	**100**	**100**

In Poland, a quick change in the structure of employment has been made. The number of employees employed for a fix-term contracts has increased significantly, to 28,3 % in 2014. In UE only in Spain the share of this type of employment was comparable – 24 % (Eurostat). 57 % of the respondents had fixed-term contracts. It was higher than the average in Poland. The share of part-time work (including contracts for work and others) was only 16 % and was more than two times lower than the national average. This means that the professional status of the respondents was more stable than other employees in Poland. Accurate statistics reflecting the nature of the contract of employment of surveyed graduates shows Tab. 5.

Table 5 **The type of contract of employment with the current employer**

What is the type of employment contract with your current employer?	**Women**		**Men**		**Total**	
	(amount)	**(%)**	**(amount)**	**(%)**	**(amount)**	**(%)**
Fixed-term	13	13	44	44	57	57
For an indefinite period	17	17	9	9	26	26
Contract for work	0	0	1	1	1	1
Others	9	9	7	7	16	16
Total	**39**	**39**	**61**	**61**	**100**	**100**

The graduates who have not undertaken the job in their profession have been asked for the reasons of such situation. The opinions about the lack of job offers (33 %) and low salaries in education (37 %) predominated. Reasons for not working in the profession divided by gender shows Tab. 6.

Table 6 **The reasons for not taking the job in the learned profession**

Why haven't you taken the job in the learned profession?	**Women**		**Men**		**Total**	
	(amount)	**(%)**	**(amount)**	**(%)**	**(amount)**	**(%)**
Lack of job offers	6	33	5	33	11	33
Low salary	7	39	5	33	12	37
Working in diffrent profession	6	28	5	33	11	30
Total	**18**	**55**	**15**	**45**	**33**	**100**

Another question asked was: Has graduation affected the professional advancement? Over 55 % of respondents has granted the negative response (25 % of women and 30 % of men). The remaining group stated that graduation had an impact on their career advancement. The answers of the respondents are illustrates in the Tab. 7.

Table 7 **The impact of studies for professional advancement**

Has graduation affected your professional advancement?	**Women**		**Men**		**Total**	
	(amount)	**(%)**	**(amount)**	**(%)**	**(amount)**	**(%)**
Yes	14	14	31	31	45	45
No	25	25	30	30	55	55
Total	**39**	**39**	**61**	**61**	**100**	**100**

Respondents were then asked whether graduation resulted in an increase in their salaries? Less than half, 42 % of respondents has granted a positive reply. The other part of the surveyed group said that completion of the studies had no effect on their salaries (58 %). Respondents answers are shown in the Tab. 8.

Table 8 **An increase in salaries after graduation**

Has graduation resulted in an increase in your salary?	**Women**		**Men**		**Total**	
	(amount)	**(%)**	**(amount)**	**(%)**	**(amount)**	**(%)**
Yes	15	15	27	27	42	42
No	24	24	34	34	58	58
Total	**39**	**39**	**61**	**61**	**100**	**100**

Satisfaction (or dissatisfaction) with the job is a synthetic indicator often studied by sociologists and economists (Tab. 9.). The first three questionnaire

answers (very satisfied, satisfied, meets my expectations) have been chosen by 75 % of the surveyed population. This result is much better than in other studies (Kabaj, 2003).

However, 18 % of respondents answered that they are not satisfied, they had higher expectations, the work does not meet their ambitions and they treat work only as a source of incomes. Despite these ratings only 6 % of respondents want to change the workplace. This last indicator reflects the actual dissatisfaction with the job, but also a chance to change jobs for better, more interesting in the local labor market.

Table 9 **Level of job satisfaction**

What is your job satisfaction level?	**Women**		**Men**		**Total**	
	(amount)	**(%)**	**(amount)**	**(%)**	**(amount)**	**(%)**
Very satisfied	9	9	12	12	21	21
Satisfied	14	14	26	26	40	40
Meets my expectations	4	4	10	10	14	14
Doesn’t meet my expectations	3	2	8	8	10	10
Only source of income	3	3	4	4	7	7
Not satisfied	1	1	0	0	1	1
I intend to change	5	5	1	1	6	6
Total	**39**	**39**	**61**	**61**	**100**	**100**

The employed graduates were asked about the employees’ qualities that employers pay attention to in the recruitment process. The answer to this question is important for improving the learning process. According to respondents the most important are: vocational skills, professional education, teamwork, flexibility, work experience and the age of the employee. The answers of respondents are illustrated in Tab. 10.

Table 10 **Employees' qualities employers pay attention to**

To what qualities the employer paid attention hiring you?	Women		Men		Total	
	(amount)	(%)	(amount)	(%)	(amount)	(%)
Vocational skills	21	23	34	25	55	24
Professional education	17	18	24	18	41	18
Flexibility	15	16	26	19	41	18
Teamwork	20	22	21	16	41	18
Experience	12	13	14	10	26	12
Age	8	8	15	12	23	10
Total	**93**	**41**	**134**	**59**	**227**	**100**

Conclusions

Conducting studies on the further fate of Education in Technology graduates and their professional adaptation, I made efforts to assess the quality of education. The subject of education are students, so they and only they, after graduation can assess the quality of education and its impact on their lives and careers. Therefore, the survey included questions that show an actual assessment of the suitability of professional graduates of this field of study.

The most synthetic indicator is reduced to the question of whether graduates would choose EiT once again if they could? The answer to this question is the sum of experiences from studying and employment after graduation. The majority of respondents answered "Yes" to this question.

It is interesting that the majority of graduates positively evaluates the impact of studies at their personal and professional lives. The most interesting however is that there are more graduates positively assessing the impact of studies at their personal life (75 %) than professional career (65 %). Both results are very high.

A very important indicator of the usefulness of the studies is the professional advancement. It shows that studies made it easier or accelerated the professional advancement.

References

Barański, A., & Rozwadowska-Skrzeczyńska, J. (1998). *Szkoły niepubliczne: przepisy i wyjaśnienia*. Warszawa: Wydawnictwa Szkolne i Pedagogiczne.

Czubaj, M. (2004). Niższe szkoły wyższe. Raport. *Polityka,* 40 (2472). Downloaded from http://archiwum.polityka.pl/art/nizsze-szkoly-wyzsze,395164.html

Depešová, J., & Tomková, V. (2001). Tradičné technológie a 21. storočie. In: *Premeny Slovenského školstva na prahu nového milénia* (pp. 410-413). Nitra: PF UKF.

Dmochowska, H. (Ed.) (2015). *Mały rocznik statystyczny Polski 2015*. Warszawa: Zakład Wydawnictw Statystycznych.

Eurostat. Dane statystyczne dotyczące zatrudnienia. Downloaded from http://ec.europa.eu/eurostat/statistics-explained/index.php/Employment_statistics/pl#Umowy_o_prac.C4.99_w_niepe.C5.82nym_wymiarze_czasu_pracy_i_na_czas_okre.C5.9Blony

Frycki, S. (1989). *Przemiany w treściach kształcenia ogólnego*. Warszawa.

Guthrie, B. (2015). *Graduate destinations 2014. A report on the work and study outcomes of recent higher education graduates*. Melbourne: Graduate Careers Australia Ltd. Downloaded from http://www.graduatecareers.com.au/wp-content/uploads/2015/07/Graduate_Destinations_Report_2014_FINAL.pdf

Kabaj, M. (2003). *Partycypacyjny system wynagrodzeń. W kierunku kapitalizmu partycypacyjnego, wysokiej wydajności i godziwej płacy*. Warszawa: IPiSS.

Kupisiewicz, C. (1995). *Koncepcje reform szkolnych w wybranych krajach świata na przełomie lat osiemdziesiątych i dziewięćdziesiątych.* Warszawa: Wydawnictwo Żak.

Łobocki, M. (1984). *Metody badań pedagogicznych*. Warszawa: PWN.

Okoń, W. (1998). *Nowy słownik pedagogiczny*. Warszawa: Wydawnictwo Żak.

Post-Graduation Report: 2014-2015 bachelor's degree graduates. Downloaded from http://www.career.vt.edu/scripts/PostGrad2006/Report/PostGraduationReportByMCU.asp?College=00&Major=ALL&Cohort=2014-2015&SortBy=M

Vargová, M. (2003). *Conditions of New Approaches in Technology and Vocational Education. Slovak Republic. In: UNESCO – The Development of new Approaches in Technology and Vocational Education in the Countries in Transition – the Countries of Central Europe and Souht Africa. An Internation Pilot Project. Participation Programme for Years 2002-2003*, 183 711 16 ONG, 286-288.

What do graduates do? October 2015. Downloaded from http://www.hecsu.ac.uk/assets/assets/documents/wdgd_2015.pdf