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Architecture Change in A Post-Bologna World of Higher Education in Poland – Case Study.

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ABSTRACT

In 2005 Joanna Serdyńska and Jerzy Witeczek published the results of a research work which covered the first 25 years of educating students at the Faculty of Architecture, Silesian University of Technology, Poland. It aimed at measuring the attractiveness and effectiveness of studies at the Faculty, and considering how some figures, i.e. previous entrance examinations, length of studies, male-female ratio and others, have been changing in time. The research turned out to be a kind of summary of the "pre-Bologna" era in architectural education. Form 2006 on, according to Bologna process, some major changes in higher education have been made, which affected organization of studies, content of study curriculum, and ways of teaching and learning. Harmonization of studies across the Europe has left architecture with a two-cycle degree study programmes, systems of credit transfer and quality assurance, and so-called student-centered learning all in the name of better quality and a lower cost. Today, in 2013, it is possible to make first recapitulations and draw some conclusions according to the new educational pattern, and, thanks to the previous research work, one can also compare those two models in terms of educational conditions. The comparison of an old and new study curriculum complements the work. The paper deals with questions about the impact of the transition to the Bologna system on study curriculum content, changes in the ways of teaching and learning, and ways in which it affects the effectiveness of studies and the quality of education.

KEYWORDS: higher education, implementation of Bologna process, architecture, graduate's profile

1 INTRODUCTION

The paper reports the outcomes of inquiry of the graduate's profile made at the Faculty of Architecture, Silesian University of Technology. The Silesian University of Technology was established in 1945 to offer the set of study options in engineering to satisfy the needs of school leavers and provide initial vocational education for young engineers in the vicinity of their homes. The history of the Faculty of Architecture dates back to the beginnings of the University, when Architecture was still a department

at the Faculty of Civil Engineering. In 1977 the Faculty of Architecture was established and it has been an independent unit ever since.

The goal of the inquiry was to discover in what way the higher education reform influenced the graduate's profile. It was made to examine the changes which occur as a result of implementation of two-cycle study programmes within the architecture and urban planning area of studies due to resolutions of the Bologna Declaration. It was possible because the present inquiry was the second one conducted at the Faculty of Architecture SUT. The first one, made in 2005, turned out to be a summary of the pre-Bologna era. It revealed some trends in the graduates' profiles during the first 25 years of the existence of the faculty. The question of whether the tendencies observed during the first inquiry would still stay the same after the transition to the Bologna system was equally interesting.

Both inquiries were based on graduates' files: a questionnaire for a candidate for studies and a protocol of a diploma examination, stored in the university archive. There were, however, changes in the questionnaire for a candidate for studies. The one used during the first inquiry is no longer in operation, the present one is a simplified version; it lacks information about parents' education and occupation. Therefore, it is no longer possible to evaluate the influence of the father's and mother's education/occupation on the candidate's choice of the area of studies. When defining a graduate's profile on the basis of available documents, the data was analysed in three groups:

- environmental prerequisites: place of residence, school location and a kind of education prior to studies,
- length of studies,
- gender ratio.

2 ENVIRONMENTAL PREREQUISITES

Studies at the Faculty of Architecture have always been attractive for secondary school leavers - that is possibly the reason why candidates for studies have to take an entrance examination from the beginning of the faculty. It is still valid today, even though according to the Ministry of Science and Higher Education regulations, it is recommended that the score at maturity examination (high school exit exam which must be passed in order to apply for higher education) should be the only criterion in the enrolment process. Education reform aimed at abolishing entrance exams and basing candidates' admissions primarily on results of maturity examination. (Performing entrance examination must be approved by the Ministry and is only accepted when the maturity examination is not sufficient to measure knowledge and skills required for the studies).

The reform of higher education meant implementing the Bologna model and led to replacing one cycle, a five-year Master's degree studies, with two-cycle degree programmes: Bachelor's (undergraduate) and Master's (graduate). What was formerly the entrance examination for the five-year Master degree studies is now the entrance exam for Bachelor's degree studies; additional recruitment procedure was added to control the intake for the Master's degree studies.

In the 2005 inquiry three of the environmental prerequisites were indicated and measured:

- the candidate's place of residence,
- type of secondary school,
- home background.

The distribution of graduates according to the place of residence in 1978-2003 period was far from normal – graduates originated mainly form cities of 100 000 and more inhabitants. The situation changed in 2013. In 1978 there were 98% of graduates from cities of 5000 and more inhabitants, in 2013 BSc students whose homes were located in towns of 5000 or more inhabitants made 97% of the whole number of graduates. According to the Statistical Yearbook of the Silesian Voivodship, in 2012 78% of the Silesian population lived in cities with more than 5000 inhabitants. This means a significant shortfall of students form rural areas. Among the most popular places of residence during the period 1978-2013 were

mainly cities located in the Silesia region. The three most popular cities in 1978 were: Katowice, Gliwice, Bytom and in 2013: Katowice, Gliwice and Dąbrowa Górnicza.

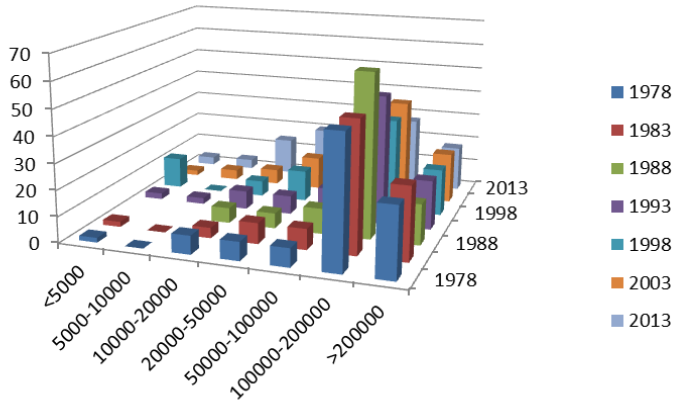
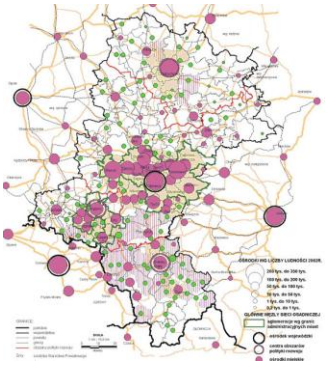


Figure 1: BSc graduates by the place of residence.

It was discovered during the research that a secondary school hometown has even more impact than the place of residence. The candidates form schools located in the most urbanized areas are more likely to become architecture graduates. The maps below show similarities between distribution of urbanized areas and the most frequent students' suppliers. The vast majority (76%) of BSc graduates come from schools located in the Silesian region. The second biggest supplier of the BSc students is the Mazowieckie voivodship (7%). It looks like the vicinity and accessibility by the means of transport are the main factors determining whether or not the candidate will be the student of the Faculty of Architecture SUT.



urbanized areas
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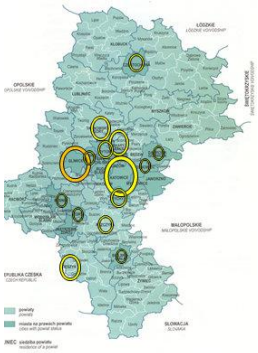


most frequent students' suppliers

Figure 2: BSc graduates by secondary school hometown.

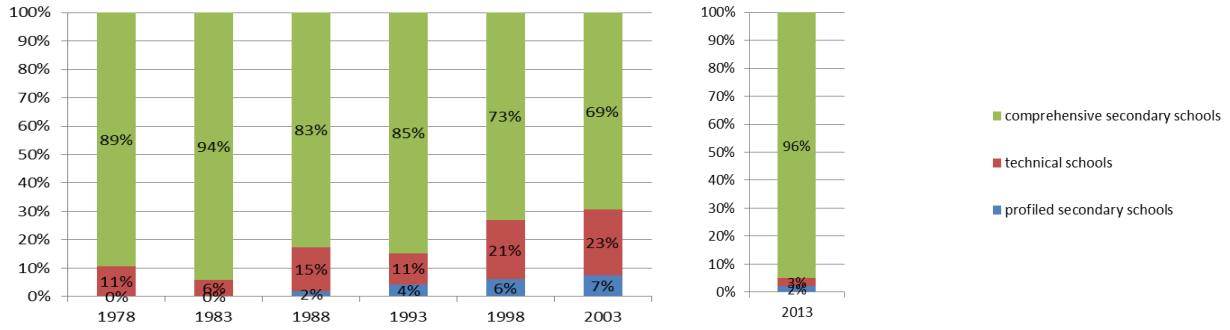
3 SCHOOL BACKGROUND

The reform of the educational system realised in Poland from 1 September 1999 led to converting the two-stage system of education into a three-stage structure. It didn't, however, change the conditions of admission to studies - second degree secondary schools leavers who passed their maturity examination are allowed to apply for the studies. Schools offering the maturity examination are still the same as they were before the reform (only the duration of education has been reduced by one year):

- 3-year comprehensive secondary schools, (liceum ogónokształcące)
- 3-year profiled secondary schools, (liceum profilowane)
- 3-4-year lukewarm professional technicians, (technikum)

(Fundamental vocational schools graduates can proceed to the maturity examination under the condition of completing the two-year supplementing comprehensive secondary school or the three-year-old supplementing technical vocational school).

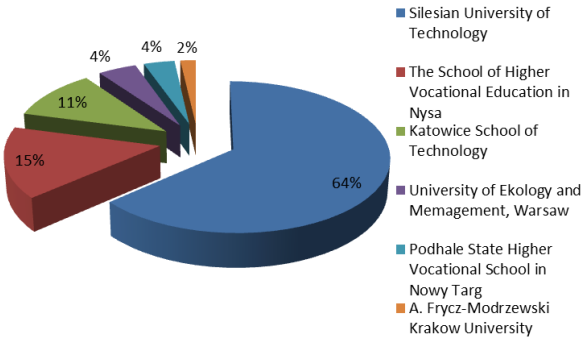
There was a vast majority of comprehensive secondary schools' matriculates among the graduates from the Faculty of Architecture between 1978 and 2003. The analysis of a type of secondary school graduates ratio showed, however, that there was a feeble, but constant trend to increase the number of other than comprehensive secondary schools' matriculates. During this period the number of lukewarm professional technicians' graduates rose form 11% up to 23%. This allowed to have some hopes for the increase in the breadth of secondary school background of architecture students. The inquiry of 2013 shows, however, the setback of this trend – today 96% of graduates come from comprehensive secondary schools and additional about 2% from profiled secondary schools, and only about 3% of graduates are lukewarm professional technical schools leavers.

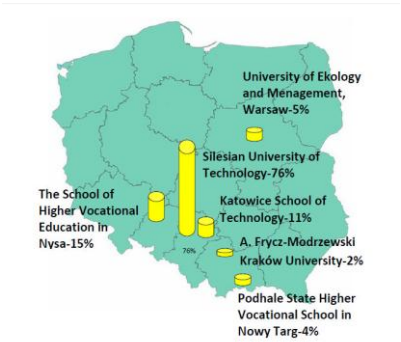


before the reform after the reform

Figure 3: BSc graduates by the school type.

In terms of the MSc studies, the vast majority of graduates come from the Faculty of Architecure SUT (76%); the second supplier is The School of Vocational Education in Nysa (15%) and the third - Katowice School of Technology (11%). The three others are: University of Ecology and Management in Warsaw (5%) Podhale State Higher Vocational School in Nowy Targ (4%) and A. Frycz-Modrzewski Karakow University (2%). 87% of MSc graduates come from higher schools located within the Silesia. Silesian University of Technology, which was established over 60 years ago to provide a place of study closer to a place of living, still serves mainly people living in the proximity of Gliwice. The harmonization of study curriculum across Europe and replacing one cycle Master degree study program with two cycles has not affected the diversity of architecture students. Implementing two-cycle studies has not led to broadening the MSc students background also – only BSc graduates who studied within the architecture and urban area are allowed to apply for the MSc studies.



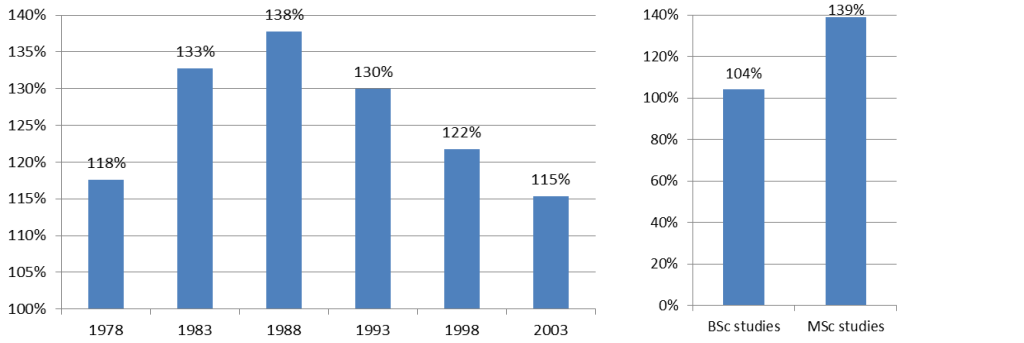


MSc graduates by type of BSc school MSc graduates by BSc school location.

Figure 4: MSc graduates by the BSc school.

4 LENGTH OF STUDIES

Higher education reform in Poland made the BSc studies last at least 3.5 years, and the MSc studies - 1,5 years. At the Faculty of Architecture, 5-years one-cycle Master's degree study programme has been replaced with 4-years Bachelor's and 1,5-years Master's study programmes – the overall regular length of studies has increased from 5 to 5,5 years. The interesting question was how long it actually takes an average student to complete their studies. The analysis of the graduates' files of 1978-2003 period shows that in the beginning, the length of studies was extending, and reached its peak in the late eighties. An average student in 1988 prolonged their studies by 39% of their regular duration - the average length of studies was about 6,8 years – almost 2 years more than the regular time. From 1988 on a reversal of the trend can be observed - the length of the studies started to decrease constantly, and reached its historical minimum in 2003.



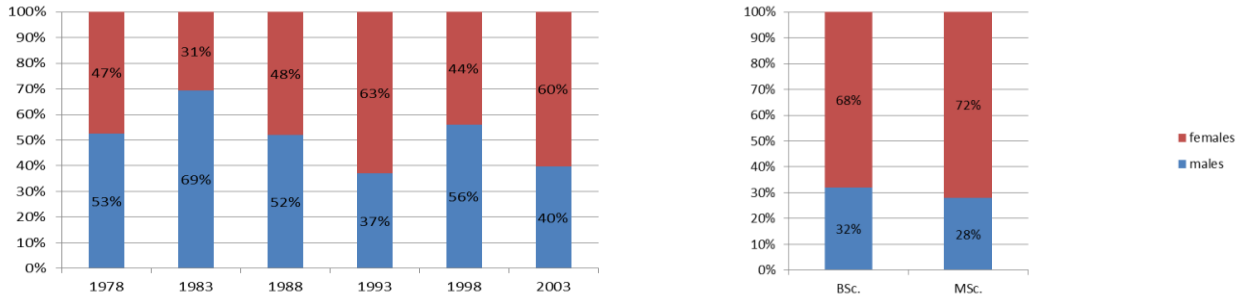
before the reform after the reform

Figure 5: Length of studies

Then came the reform, and now the effectiveness of the BSc studies is extremely high (104%) - 92% of students graduate in regular time. The effectiveness of MSc studies, estimated as 139%, is the lowest ever. It looks like students eager to graduate from BSc studies within the second cycle suddenly lose their interest in competing the MSc studies.

5 GENDER RATIO

For quite a long time there was a natural gender balance in the group of architecture students. In the last years before the reform the number of women started to grow constantly, and reached 60% in 2003. In 2013 females outnumbered males. There are 68% of female students among the BSc graduates, and 72% among MSc graduates. This is really something to worry about because, as many surveys show, once out of school, many female graduates either never enter practice or leave their jobs in architecture a few years after graduation.



before the reform after the reform

Figure 6: Gender ratio

6 CONCLUSIONS

If the aim of the higher education reform was to encourage students' mobility, then it has so far failed at the Faculty of Architecture SUT. Architecture at the Silesian University of Technology is as far from crossing regional borders as it were in the beginning of its existence. The school is still regional; the reform of a study curriculum didn't manage to open it neither to the country nor to the world. The only exception is the students exchange within the Erasmus programme, but it was not the subject of the study.

According to the inquiry, instead of being common, the school turns out to be exclusive – students of architecture are in most cases big town residents; students from rural areas are very rare. The availability of the faculty to the small towns and villages residents is low. The faculty is most available to the leavers of schools located in the most urbanised areas. After the reform the situation has slightly improved, but still remains unsatisfactory.

The territorial influence of the Faculty didn't change; its availability among the secondary school graduates, though, has decreased. Before the reform, it was up to 29% of technical schools graduates and 4% of profiled secondary school leavers. Now the numbers have dropped to 3% and 1% respectively.

Dividing the studies in two cycles doesn't work for the architecture and urban area of studies: neither did it open the second cycle to other areas of studies graduates nor was it the opportunity for architecture students to change their field of studies. It resulted, however, with the highest effectiveness of undergraduate studies. To the contrary, the effectiveness of graduate studies is very low; with the average 139% of their regular duration it indicates the students' reluctance to complete their studies.

One of a very few constantly increasing trends is the number of females at the Faculty. It has reached as many as 68% of women within the undergraduate studies and 72% of women within the graduate studies. It should cause some concerns because, although females are very good students, they far too rarely enter and stick with practice.

The inquiry showed that, despite common expectations, the changes caused by the higher education reform were not so significant. Architecture and urban design area of studies, because of its specificity, proved not to be prone to advantages of two cycle study programme and some of the undesirable trends observed before the reform still go on.

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