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## SUMMARY OF DOCTORAL THESIS

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### **Offices of academic teachers – world trends and the level of their acceptance at Polish Higher and Further Education based on the following examples**

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#### **I. Introduction**

Spatial arrangement of offices intended for academic workers in Higher and Further Education in Poland usually remains unchanged from the erection of a building. Sometimes there are centuries (e.g. Jagiellonian University in Cracow), in other cases “merely” decades (post-war buildings). However, new numerous needs and factors have lately appeared, which should meaningfully influence the shape of academic teachers’ office workplace. Higher and Further Education reform in Poland and technological development are among them. Therefore, the author of the thesis decided to investigate the issue of arranging academic workers’ office workplace in Poland and throughout the world.

Initial recognition of the issue enabled to observe the **research problem**, which is insufficient knowledge about arranging academic workplace for academic teachers. Two **theses** were advanced in this thesis:

1. Office workplace of academic workers of Higher and Further Education in Poland does not fulfill the new requirements and they do not satisfy users’ needs.
2. Polish academic workers of Higher and Further Education do not accept new solutions for office space promoted in English and American circles.

The author endeavoured to prove the above mentioned theses through realization of the following **aims**:

Analytical part:

1. Gathering, analyzing and extending knowledge concerning arranging academic workplace for academic teachers
2. Determining needs, conditions and measures necessary for effective office work by academic staff in the buildings of Higher and Further Education
3. Identification (in selected, several buildings of Silesian University of Technology in Gliwice and Institute of Physics at Silesian University) of the level of adjustment of office space meant to be used by academic workers to conduct their duties.
4. Learning, on the basis of the chosen examples, about the attitude of Polish academic teachers towards new office solutions suggested to them.
5. Recognition of limitations and possibility of adaptation of existing buildings to modern demands of scientific and office work.

Synthetic part:

6. Building the *checklist* to facilitate gathering information about needs characteristic for certain positions and certain Higher and Further Education.
7. Creating elements to support the programming of academic office.

However, the overriding aim was to form tools enabling academic teachers to improve conditions of their office work in case of modernization of existing buildings as well as those new designed.

## **II. Research methods**

The thesis consists of two parts, each of them corresponding to a different research method – in the first part the literature research was used and in the second one – own research – case studies. Methodology was based on grounded theory, therefore researches were the multistage process with an intent to constant improvement of the following research steps, thus in case studies there were used the following research techniques: questionnaire (two departments), simulation workshop, interviews/focus meetings, photography, outlining, observing, architectural and functional analysis. After conducting the first questionnaire research (Institute of Physics at Silesian University) the scope of research was restricted to technical departments of the university – Silesian University of Technology in Gliwice.

The studies were divided into two parts with regard to the investigated object – those in which academic teachers were engaged (participatory research) and expert research (without user participation – functional and architectural analysis).

### **III. Outcome**

All office space which was visited during the research was arranged in cellular layout and they were situated in corridor buildings, one or two way. The most common works carried out in the office were preparing for classes, writing articles and checking/analyzing outcome and searching through the Internet, reading, writing, reviewing and assessing students' works, electronic mail service and telephoning. In almost every case climatic conditions in offices of researched people were found to be the great problem, appearing in the spring-summer period (very often - stuffy, hot, blinding sunlight) as well as in the autumn-winter period (rarely). Moreover, overcrowding in offices appeared to be a very frequent problem, which was caused by confined space in these workplaces, intensified by a great number of documents stored in all possible places (on the floor, in the wardrobes, on the sills). Another problem observed during the research was tutorials and receiving guests in the academic offices. This practice caused distraction of other coworkers (one person is consulting somebody, the rest is being exposed to noise generated by such a meeting). The subjects often admitted that they do their academic work at home, mostly due to the lack of time while being present at the university, inconvenient climatic conditions and distraction caused by above mentioned reasons. Not ergonomic equipment was also repeatedly encountered, which the subjects were trying to compensate in different ways, e.g. putting boxes under the computer monitor, adding the second desk to obtain a bigger and more comfortable L-shaped desk. The research showed factors which have fundamental importance for academic teachers' working comfort. These are workplace and its location (according to the four quarters of the globe, windows, entrance), place of tutorials, place of receiving guests, working conditions (including microclimate), furniture and equipment, storage, place intended for eating meals, place for chair meetings.

The studies proved that respondents do not accept office innovative solutions. The major criticized elements were excessive openness of suggested office arrangements (fear of even more distraction, on the other hand single rooms were not accepted either) and the issue of behavioural needs – privacy, territoriality, sense of security.

Analysis of the buildings enabled to notice that the form (construction, elevations, layout of installation and ventilating duct) of Polish and British researched buildings most often hinders conducting thorough change of arrangement of spatial layout, which may become a necessity in connection with constant technological development.

### **IV. Conclusions**

Conclusions can be divided into two groups – to exploit in practice and to use them in further research work. Practical conclusions comprise of two groups – corresponding to aims

presented in the introduction – the *checklist*<sup>1</sup> was created and the group of elements supporting programming in the form of a table presenting advisable conditions, equipment and location of academic teachers' office, ideograms showing submitting solution proposals some of the observed problems and so called carpets of work (exemplary solutions to some positions together with surfaces). The second group of conclusions is concentrated on aspects, which, according to the author, could become the object of further research in the field of projecting offices for academic teachers and refining participatory research methods applied in architecture. One of them is an issue of exploiting mock-ups during the research where the respondents were asked to build their ideal office – their suggestions were very close to conditions in which they were working at that time (slight innovativeness). According to the author, the reason of that may be the lack of knowledge of alternative office solutions for academic workers, therefore she suggested repeating research but with previous training of respondents, e.g. in 3D cave system or organization of a trip to a building where innovative office strategies are realized. In regard to the discussed issue, there appears the next topic recommended for further research – if, and if yes, to what extent the results of simulation research would differ in case when different presentation of models for office space for academic teachers were used, for example only in animation simulating walk around the office presented on a computer monitor or in a previously mentioned cave 3D or in a real model in scale 1:1. The next subject suggested for further investigation is to verify to what extent it is possible to generalize the results from this research over other Higher and Further Education in Poland (technical, humanistic, artistic, etc.). The answers gathered during visual assessment imply the necessity of further detailed research. The research is not definitive since it was not much put to the test. It should be considered more as a pilot research and an attempt to introducing and testing a new additional research method.

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1 *Checklist* – In this work checklist means systematized list of elements, which should be checked, and which one ought to ask about while gathering data in programming phase in order to create the object which fulfill needs of user as an organization and the final user.