



Teaching through research

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This paper presents the teaching experience in engineering the author acquired while at the Universität Karlsruhe (TH), Germany and the opportunities this experience gives for a further academic career in her home country of Romania. The author obtained a Diplom-Ingenieurin (diploma engineer) degree in architecture from the Universität Karlsruhe (TH) and did research, first within two Collaborative Research Centres funded by the DFG, the German Research Society, and then within a Research Training Network, funded by the same organisation. Research can be seen as a resource for teaching, when students, from undergraduate till doctorate level can be involved in larger research projects of more experienced scholars.

Presently the author is a fellow with a reintegration grant at the ERGOROM '99 foundation and researcher at the Conservation and Restoration Chair, Department for History and Theory of Architecture and Heritage Conservation of the "Ion Mincu" University of Architecture and Urban Planning, both in Bucharest, Romania. Among the tasks is the support of teaching activities through documentation materials. Also students are involved in research projects of the department in which she participates and she collaborates with them.

The first experience was as student of architecture within the Collaborative Research Centre 315 "Preserving historically relevant constructions", in 1998. The author was in this context receiver of teaching through research. She participated at a building survey in Poland of a textile factory which counted towards the seminars to be completed to obtain the diploma degree as "advanced building survey". The building survey itself was one of the results of the subproject on "The building survey as mean of the history of architecture research" and one of many to contribute to the doctoral research of one of the employed researchers of the institute participating to the Collaborative Research Centre. An exhibition contribution of the Institute for Architecture History of the Universität Karlsruhe (TH) was contributed to the UniSchau 2000, the jubiliary programme of the university to the programme point "Human and society": "Built past - current research projects and selected individual studies".

The second experience was as postgraduate research assistant within the Collaborative Research Centre 461 "Strong earthquakes". Within the subproject "Modelling and simulation" the author was involved in another kind of building survey, this time at urban scale, of 1500 buildings in Bucharest. Prior to the survey she developed a questionnaire to be filled on site and after the survey she wrote a report on how the data from the survey shall be transferred into an ArcView database. This report contributed to training of a diploma work within the institute, a diploma work for a Civil Engineering degree, specialisation construction management.

The third experience was as a fellow within the Research Training Network 450 "Natural Disasters". This time the author supervised one individual study and two diploma works within her own topic of research, "Applicability and economic efficiency of seismic retrofit measures on existing buildings". The first was an individual study on "Costs calculation in the seismic retrofit of existing buildings", the diploma works were on "Building survey system for the representation of the load bearing structure" and respectively "Construction management at the strengthening measures for seismic retrofit". All works led to a Civil Engineering degree, specialisation construction management. These latter were part of "learning through teaching" for the authors, at postgraduate level.

Although the building survey, a speciality the author learned and taught through research is one of the main specialties of the chair where the author is now researcher, in Romania architects are not trained as engineers, as in Germany. So the transfer of knowledge from the experience she has will be also an interdisciplinary transfer.

The author will present the opportunity which teaching through research presents for teaching cross disciplines and the challenges she encountered in this context.