EFFECTS OF INDUSTRY-ACADEMIA COLLABORATIVE EDUCATION IN RE-DESIGN APARTMENT PROJECT

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There are about 4500 apartments standing around KIT with mostly identical room layouts, and recent years have seen increased vacancy among the older buildings.

According to the investigation results, more than 2000 apartments were built between 1985 and 1995.

It is necessary to carry out a large-scale renovation of most of these apartments that were built 20 years ago.

Students design their own living environment by renovating the aging student apartment rooms to add new values to old buildings.
It is an academic-industrial collaboration practice, in which students collaborate with the apartment owners, architects and construction companies for the renovation.

<table>
<thead>
<tr>
<th>Year</th>
<th>Project Renovation</th>
<th>Project New construction</th>
<th>Number of participants Postgraduate</th>
<th>Number of participants Undergraduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2 rooms</td>
<td></td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>2011</td>
<td>3 rooms</td>
<td>20 rooms</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>2012</td>
<td>6 rooms</td>
<td>32 rooms</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>2013</td>
<td>10 rooms</td>
<td>12 rooms</td>
<td>6</td>
<td>22</td>
</tr>
</tbody>
</table>
Flow of RDA project

**April-June**
- Recruitment and selection of students
  - Understanding of the RDA project
- Research of current situation
  - Research in the surrounding environment and the current status of the building

**May-June**
- Understanding of the renovation
  - Brainstorming
  - Creating a proposal, Presentation

**July-September**
- Design
  - The acquisition of Design skills

**October to December**
- Construction
  - Collaboration with construction company
  - Acquisition of Construction technology
- Evaluation and improvement
  - Publication of room evaluation
  - Evaluation by stakeholders

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**Student**
- Instructor
  - Research
  - Concept making
  - Design, Presentation

**Owner**
- Project participation
  - Organizing request matters
  - Meeting with students
  - Construction contracts

**Constructor**
- Determination of project participation
  - Practical advice
  - Estimation
  - Construction

**Architect**
- Proposals confirmation
  - Adjustment of design description
  - Supervision guidance
  - Criticism
Propose an idea to the apartment owners

- Students propose directly to the apartment owners an idea.
- Grasp the tenants' needs correctly and to find new ideas.
- Think problems found from the point of view of the students, who actually live there.
A Unique Proposal Backed by Analysis

Eagle House (2010) has large dirt floors and double doors and windows through which to display plants.
Sunflower Apartments (2010) to maximize workspace by designing plumbing as compact as possible and installing magnetic paint-covered walls for freely hanging pictures and drawing were approved.
Think while touching the actual construction

- Total thinking of the building
- On-site Communication with workers
- Sharing and Management of Information
- Ability to Manage Schedule
- Attitude to try to learn
Eagle House
(2010)
Lifestyle with plant
Sunflower Apartments (2010)

The wall by the magnet paint

Kitchen can be used as a desk
Little Pit (2013)

Storage using the wall
Apartments with a community space

Ciel blue (2012)
Various feedback from the community

Resident recruitment briefing

Briefings for apartment owners

Consider Possibility of Completed Apartments Being Used Meaningfully
**SURVEY RESULTS**

**Q:** Did you develop your consciousness about architecture through the practice project?

- Increased: 92%
- Increased somewhat: 8%

**Q:** Were you able to become conscious of the society and broaden your perspective through the project?

- Increased: 76%
- Increased somewhat: 24%

**Q:** Were you able to deepen your understanding of the social significance and responsibility of the job architecture through the project?

- Increased: 80%
- Increased somewhat: 20%

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Bar charts showing the increase in communication skills, presentation skills, problem detection/resolution ability, time management ability, and research capacity.

- Increased: Blue
- Increased somewhat: Red
- Did not really increase: Yellow
- Did not increase: Green