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OIKODOMOS

a virtual campus to promote the study of dwelling in contemporary Europe

WORKPACKAGE **PR EP 2**
Assessment of Learning Methodology
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Education and Culture DG

Lifelong Learning Programme

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	OIKODOMOS
workpackage PR EP 2	**Assessment of Learning Methodology**
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This report reviews and evaluates the HOUSING@21.EU learning model in order to make recommendations to inform the design and implementation of new courses that will use the virtual campus approach and facilities.

The technical evaluation of the web-based platforms is the subject of separate reports, PR EP1.

1) Evaluation Report of the Learning Model

The virtual learning space HOUSING@21.EU (Emerging forms of housing and living in 21st century Europe) was developed and implemented between 2003 to 2006, with the support of an Erasmus Intensive Programme, by partners keen to collaborate in teaching and learning about a pan-European approach to contemporary housing design. HOUSING@21.EU "aimed at integrating web-based platforms in architectural education (on) a European scale" (Madrazo and Massey, 2005). It used an online repository to facilitate the collection, study and discussion of housing case studies in partner institutions and a different web-based environment to support the creation and presentation of design proposals for innovative housing during an annual face to face workshop.

The OIKODOMOS consortium is taking this work forward with the aim of developing a structured virtual campus to support innovative pedagogic approaches that integrate on-line activities with the curricula at each partner institution.

2) Methodology

As the HOUSING@21.EU learning resources were used in academic years 2003/04, 2004/05 and 2005/06, and the current external evaluators were not involved at that time, the retrospective evaluation of the underlying model has, of necessity, been largely based on the three end of year reports. These have been supplemented by questionnaires completed recently by some of the staff and students who were involved in HOUSING@21.EU and discussions with some of the academic staff who continue to be involved in the OIKODOMOS project.

The student focused questionnaire was based on the MECA-ODL approach to evaluating quality in open and distance learning adapted to assess elearning (Riddy and Fill, 2004; Fill, 2005). An iterative process allowed current participants in OIKODOMOS to suggest amendments and additions to the questions and scoring methods. Once all contributors were agreed, the questionnaire was mounted online, previous students were alerted by email and asked to complete it. The questionnaire was mounted online at *http://interviste.lu.unisi.ch/mrIWeb/mrIWeb.dll?I.Project=OIKODOMOS* and distributed to 71 students. A total of 11 students responded. The questionnaire is given in Appendix 1, the results in Appendix 2.

The staff focused questionnaire (see Appendix 3) was based on an approach developed and used by one of the evaluators in a previous Anglo-American elearning project (Rees *et al*, forthcoming). The questionnaire was distributed by email to 14 members of staff. So far there has been one agreement to holding a telephone interview.

All the returned questionnaires and comments were analysed manually.

3) Findings

3.1) From the evaluation reports

In the first academic year, 2003/04, an external evaluator, an architect from the Barcelona City Housing Planning Office, gave positive feedback after the workshop presentations about the variety of approaches, the conceptual richness of the proposals, and the appropriate use of computer tools for designing and presenting the projects. This appears to indicate positive outputs from the workshop processes.

However, it was also reported that '*most of the participants lacked an overall view of the pedagogic purpose of the case study analysis*' and had used the web-based case study library with no clear understanding of what it should, or could, contribute to the students' learning. '*Only at the end of the project, at the joint sessions during the Workshop, was it possible to explain the tasks and the web-environment altogether. Then, the pedagogic methodology seemed to be clear.*'

The report's authors suggested that the case study library was used primarily as a data store, rather than a vehicle for learning. They recommended that teaching staff at each participating institution should '*develop their particular methodology to teach with it.*'

The report at the end of academic year 2004/05 included very little pedagogic evaluation. An interesting comment from the report's author(s) was that *'housing in 21st century Europe, remains an elusive matter in itself. The most that can be achieved in these seminars is an awareness of the European dimension of the problem of housing, without necessarily describing the precise nature of that problem, or, even less, providing concrete solutions for it.'* Although, this seemed a matter of frustration to the author(s), it does suggest that **learning outcomes,** rather than **design outputs,** would be a more appropriate basis for the assessment and evaluation of the pedagogical methods. Awareness of complexity is a valuable learning outcome for students.

As in the previous year, cultural and communication difficulties were acknowledged, particularly with respect to group working during the Workshop. '*The differences in the student's knowledge, the distinctive approaches towards architecture adopted by the Schools, the cultural differences, and last but not least, the difficulties to communicate fluently in English, add a social dimension to the Workshop that transcends the purely academic goals.'*

In 2005/06, one institution (Sint-Lucas) introduced a group work approach to the case study aspects. This appears to have been proposed because of the large number of students taking the module, with forty-two students organised into seven groups of six. '*Each group was assigned a theme taken from the levels and dimensions the site is organised in: social, economical and technological levels and the individual, communal and urban dimensions. Each group searched for new case studies and cases already inserted in the database that fitted their chosen theme the best. During the courses the students presented their work to the whole group using the website.'*

The report suggested that some students disliked what was seen as *'focusing on processes'* rather than producing designs. However, the report was enthusiastic about what it termed *'a constructivist model of education that places the student at the center of the learning activity'*, claiming that the *'interaction of physical and virtual activities, along with the structured sequence of tasks, moving from the analysis of existing cases to the design of new proposals, has proved to be pedagogically meaningful both for students and faculty'.*

3.2) From the student questionnaires

The evaluators are aware that the number of respondents (11) is low and that they are relying on memories of teaching and learning that took place some time ago. Therefore, any findings should be treated with some caution. In particular, it has not been possible to do a detailed analysis of whether and how the case study repository and work shops supported specific learning aims and intended outcomes. This is addressed in the recommendations section below.

Appendix 2 shows the student responses to the questionnaire, giving the total number selecting each possible response to each question. There is nothing in these responses to give cause for concern. Indeed, the majority of these respondents appear to have found the case study repository easy to use, well supported and helpful to their learning, especially in conjunction with the seminars, and the design workshop well organised, enjoyable, beneficial and appropriately assessed. Opinions are more evenly split over whether the case study method suited all learning styles (Q4), the usefulness of the discussion forums (Q10/11), and whether the case study approach facilitated critical consideration of the issues (Q14/16).

Two students entered comments that indicate some aversion to the constructivist approach to learning:

> "… *this self learning stuff, where students have to search everthing there selfs is not a good way for me."*
>
> "...*I like to get good and interesting lectures of people who know what they are doing. Not hours of searching something, you don't even know whehter it's a good thing or not."*

Another comment suggested that the case study repository was somehow peripheral, not central, to student learning:

> "… there is not much time to study architecture itself and such learning space was only as some extra thing, not perceived as some real tool to improve or to learn something. I think that there are not many chances to this space become real learning space, more like something that can give another look on architectural things and thinking."
>
> A student suggested a possible improvement that might make the discussion forum more effective:
> "...if it comes to case studies I wish that they conceived more opinions of their makers. I prefer it that they was something like one case study a week and conversation about it on forum which shows building at the same time. because talking about something not seeing it at the same time can make bad impression or thoughts."

3.3) From the staff questionnaires and interviews

The questionnaire was sent to 13 members of staff who participated in the HOUSING@21.EU project, from which there were no responses returned and one staff member agreed to be interviewed. Informal discussions with HOUSING@21.EU tutors at meetings supports much of what was recorded in the interview, but the lack of responses means the information provided can only provide points for reflection rather than well founded results.

The lack of a description and common understanding of the learning expected to take place, especially within the Design Workshop, and the differences in grading schema between institutions merit further discussion in OIKODOMOS. The variability in the levels of engagement of the students with the online materials and processes pre Design Workshop, and the potential impact on the success of the combined Design Workshop should also be considered. A summary of the main comments is given below:

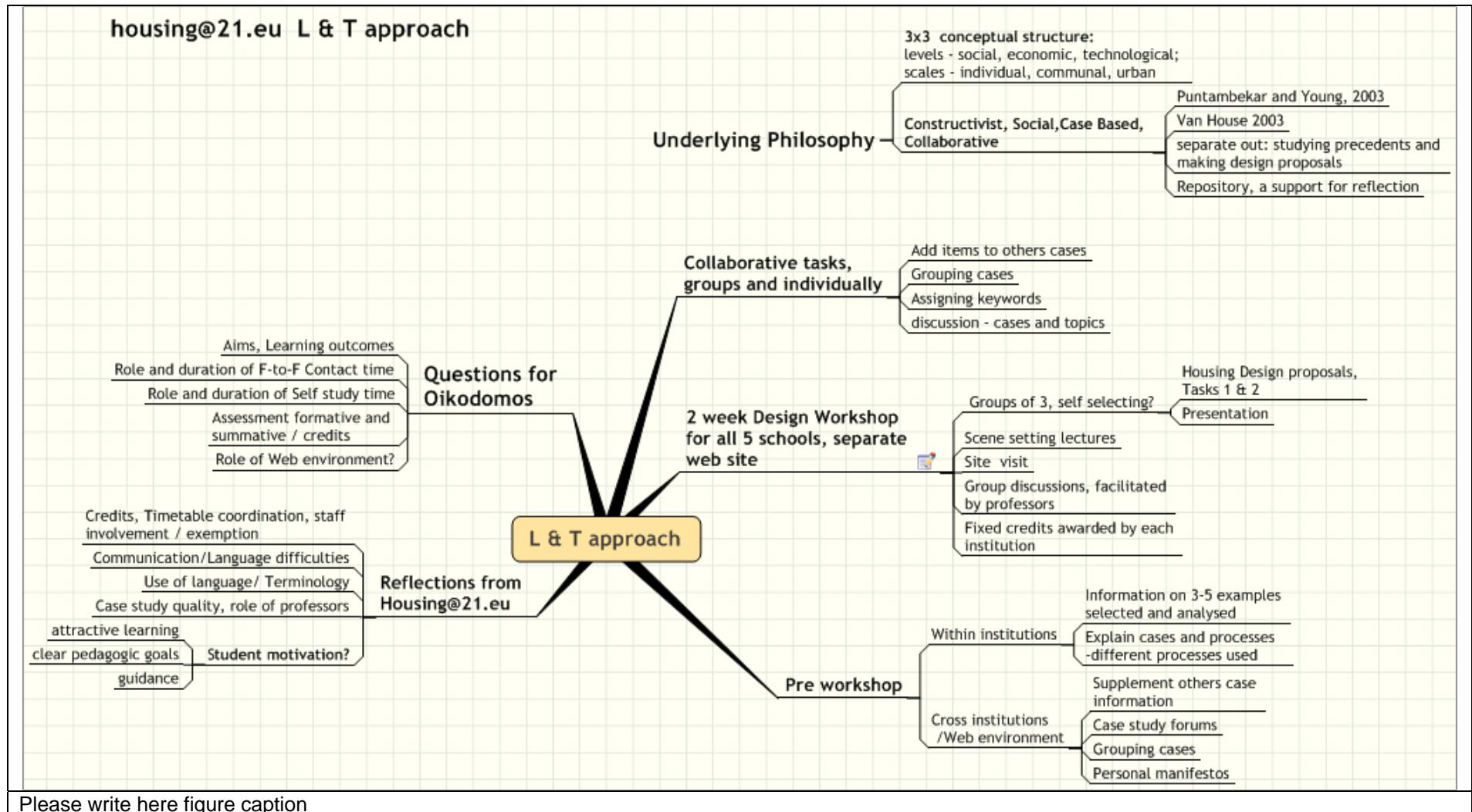*General use of the environment*
- Effective use of the environment during in-house courses required an appropriate lead in and preparation time
- Integrating the use of the case studies within courses during the second year of involvement proved difficult. The environment was found to be slow to respond and to lack some features which made setting up and use of the resources time consuming and frustrating (see PR EP1, Assessment of Existing Web Based Platform report)
- the forums (discussion environment) were not used effectively for the discussion of project related tasks, probably because of the need for integration with other course activities.

Summer workshops
- staff and students need to have time to get to know each other before the workshop, so that they can work effectively as groups/ teams more quickly on arrival
- Differences in the level of the students led to some senior students expressing frustration at learning less than their junior colleagues
- There needs to be discussion between the tutors on the grading of work so that all tutors have a common expectation, or at least mutual understanding, of the grading of students work
- the students interacted very well socially, and the workshop served to enhance cross-cultural understanding

3.4) Learning and Teaching Approach summary

Information on the Learning and Teaching approach is summarized in the MindMap below. This has been derived from the survey results, discussions at meetings and content of reports, and includes *Questions* for discussion in developing the work of OIKODOMOS, and *Reflections* taken from HOUSING@21.EU reports and comments by participants. These are further articulated in the *Recommendations* given below.

housing@21.eu L & T approach

- **Underlying Philosophy** — Constructivist, Social, Case Based, Collaborative
  - 3x3 conceptual structure: levels - social, economic, technological; scales - individual, communal, urban
  - Puntambekar and Young, 2003
  - Van House 2003
  - separate out: studying precedents and making design proposals
  - Repository, a support for reflection

- **Collaborative tasks, groups and individually**
  - Add items to others cases
  - Grouping cases
  - Assigning keywords
  - discussion - cases and topics

- **Questions for Oikodomos**
  - Aims, Learning outcomes
  - Role and duration of F-to-F Contact time
  - Role and duration of Self study time
  - Assessment formative and summative / credits
  - Role of Web environment?

- **2 week Design Workshop for all 5 schools, separate web site**
  - Groups of 3, self selecting?
    - Housing Design proposals, Tasks 1 & 2
    - Presentation
  - Scene setting lectures
  - Site visit
  - Group discussions, facilitated by professors
  - Fixed credits awarded by each institution

- **L & T approach**

- **Reflections from Housing@21.eu**
  - Credits, Timetable coordination, staff involvement / exemption
  - Communication/Language difficulties
  - Use of language/ Terminology
  - Case study quality, role of professors
  - Student motivation?
    - attractive learning
    - clear pedagogic goals
    - guidance

- **Pre workshop**
  - Within institutions
    - Information on 3-5 examples selected and analysed
    - Explain cases and processes -different processes used
  - Cross institutions /Web environment
    - Supplement others case information
    - Case study forums
    - Grouping cases
    - Personal manifestos

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4) Recommendations

Despite the low number of staff and student responses that have been collected between January and March 2008, it is possible to draw on the previous reports and those responses to make a small number of recommendations to improve the learning model that will underpin OIKODOMOS.

4.1) Summary

HOUSING@21.EU was designed to support a constructivist model of education, and this has been proven to be effective, and appreciated by the students. The future OIKODOMOS platform should maintain the underlying design philosophy but refine the organization and access to resources, and integrate the discussion facilities to be more fluidly accessible from the other resources.

- To facilitate the platform re-design more attention should first be given to elaborating the pedagogical requirements as a basis for finalising the technical specification of the platforms.

To move towards collaborative provision of courses partners need to:

- Be more consistent in their use of the environment across the partnership, to facilitate collaborative interactions of students in advance of, and during, the design workshops.

- Develop consistent documentation for courses and modules which are to be made available across the partnership. To be in line with the Bologna Process recommendations this means specification of competencies and learning outcomes, and ensuring that these are mapped through content, learning and teaching methods, to assessment approaches. (Consistency will be fundamental to any collaborative developments of courses and materials.) This includes fully documenting and explaining the educational justification for allocation of credits for students work.

4.2) Specific recommendations

It is important to distinguish between the **outputs** from using the platform and resources – that is the annotated case studies and the designs – and the **learning outcomes** – what the students should know, understand and be able to do at the end of their course of study. If desirable learning outcomes are that students will be aware of the complexity of the issues impacting on housing development and able to critically evaluate different design proposals, then this should be stated and formally assessed with appropriate credits awarded.

The use and discussion of the case studies could be made more relevant and central to student learning, by:

- providing clear descriptions of the learning expected of the students (outcomes) and the associated learning, teaching and assessment processes,
- building in sufficient time to allow the case studies work to be properly integrated within institutional courses,
- explaining the pedagogic rationale clearly on a page within the learning environment so that students can access it at any time;
- encouraging teaching staff to use the repository within taught classes;
- incorporating one or more formative exercises based on a case study with an appropriate level of credit;
- encouraging students to post questions and answers about the formative exercises to a discussion forum that can be moderated by teaching staff,

Specifics for the Design Workshops:

- selection of students to ensure compatible levels within working groups
- ensuring adequate language skills, perhaps by setting a pre-requisite level and providing guidance on how they may be obtained
- agreeing a common set of learning outcomes and associated grading schema for the summer workshops

- ensuring sufficient interaction between students and tutors pre-workshops to allow formation of working teams

References

Fill, K. (2005) 'Student-focused Evaluation of eLearning Activities'. Short paper presented at the *European Conference on Educational Research*, University College Dublin, Ireland, September 2005.

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Puntambekar, S. and Young, M. F., (2003) 'Moving toward a theory of CSCL'. In B. Wasson, S. Ludvigsen and U. Hoppe (eds), *Designing for Change in Networked Learning Environments.* Kluwer Academic Publishers, London, pp. 503-512.

Rees, P., Durham, H., Mackay L. and Martin, D. (eds) (forthcoming) *E-Learning for Geographers: Online Materials, Resources and Repositories*. Hershey, PA: IGI Global Publishers.

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Van House, N. A. (2003) 'Digital Libraries and Collaborative Knowledge Construction'. In A. P. Bishop, N. A. Van House, and B. P. Buttenfield (eds), *Digital Library Use*. Cambridge and London: The MIT Press, pp. 271-295.

Appendix 1: Student Questionnaire

Evaluation of Platforms and Process in the preparatory courses and seminars taking place at your School, previous to the Summer Design Workshops
Please score each criteria according to the values given below. We would appreciate any comments or thoughts giving more information about the reasons for your score:

A – strongly agree, **B** – agree , **C** - disagree, **D** – strongly disagree, **E** – don't know

	Evaluation Criteria					
1	There was a full description of the learning activity, including learning objectives.	A	B	C	D	E
	Comments					
2	The Case Study Repository was easy to use.	A	B	C	D	E
	Comments					
3	Required tools were included (e.g. to add items / keywords/ cases ; to group cases)	A	B	C	D	E
	Comments					
4	The content suited my way of learning	A	B	C	D	E
	Comments					
5	The content created by contributors to the repository was relevant, appropriate and clear.	A	B	C	D	E
	Comments					
6	All the materials in the learning space were easy to access	A	B	C	D	E
	Comments					
7	The processes to get technical and academic support were adequate.	A	B	C	D	E
	Comments					
8	Response times to questions from learners were adequate.	A	B	C	D	E
	Comments					
9	The Case Study Repository was a useful support for reflection	A	B	C	D	E
	Comments					

10	I studied opinions and discussions on the Case Study Repository forums.	A	B	C	D	E
	Comments					

11	I found students contributions to the discussions helpful	A	B	C	D	E
	Comments					

12	I found professors contribution to the discussions helpful	A	B	C	D	E
	Comments					

13	I enjoyed using the Case Study Repository	A	B	C	D	E
	Comments					

14	The Case Study Repository enabled me to find out about critical issues collaboratively	A	B	C	D	E
	Comments					

15	Using the Case Study Repository in conjunction with seminars was a good way to learn	A	B	C	D	E
	Comments					

16	The learning process encouraged analysis of the connections between social, economical, technological aspects and urban-architectural concepts.	A	B	C	D	E
	Comments					

Please include any suggestions for improving the HOUSING@21.EU learning space.

Evaluation of Platforms and Process for the (summer) Design Workshop

1	I used the Case Study Repository and knowledge gained from the web-site to help achieve the goals of the design workshop.	A	B	C	D	E
	Comments					
2	The design workshop helped me understand the commonalities and differences in housing design in other European countries.	A	B	C	D	E
	Comments					
3	The topics of the design workshop should be changed. Please include any suggestions.	A	B	C	D	E
	Comments					
4	The design workshop was well organised.	A	B	C	D	E
	Comments					
5	I enjoyed working in my group at the design workshop	A	B	C	D	E
	Comments					
	I gained new insights about housing through collaboration with students and professors from other schools on the design project	A	B	C	D	E
	Comments					
	I could apply new working methods (design methods, representation techniques) to the design project, which were different to the ones used during the design studio work at my university	A	B	C	D	E
	Comments					
6	Language differences were a problem in my group.	A	B	C	D	E
	Comments					
7	The final critique session at the end of the workshop was very helpful to my learning.	A	B	C	D	E
	Comments					
8	The credit points awarded were appropriate for the learning activities.	A	B	C	D	E
	Comments					

Appendix 2: Summary of Responses from 11 Students

A – strongly agree, **B** – agree , **C** - disagree, **D** – strongly disagree, **E** – don't know

		A	B	C	D	E
1	There was a full description of the learning activity, including learning objectives.	2	7	2		
2	The Case Study Repository was easy to use.		8		2	1
3	Required tools were included (e.g. to add items / keywords/ cases; to group cases).		9	2		
4	The content suited my way of learning.		6	1	2	2
5	The content created by contributors to the repository was relevant, appropriate and clear.	3	6	1		1
6	All the materials in the learning space were easy to access.	1	8	2		
7	The processes to get technical and academic support were adequate.		7	2		1
8	Response times to questions from learners were adequate.		8		1	2
9	The Case Study Repository was a useful support for reflection.	2	6	2	1	
10	I studied opinions and discussions on the Case Study Repository forums.	1	5	3	1	1
11	I found students contributions to the discussions helpful.	1	5	3	1	1
12	I found professors contribution to the discussions helpful.	2	5	1	2	1
13	I enjoyed using the Case Study Repository.	2	5	3	1	
14	The Case Study Repository enabled me to find out about critical issues collaboratively.		6	1		4
15	Using the Case Study Repository in conjunction with seminars was a good way to learn.		7	3	1	
16	The learning process encouraged analysis of the connections between social, economical, technological aspects and urban-architectural concepts.	2	4	4	1	
Evaluation of Platforms and Process for the (summer) Design Workshop						
1	I used the Case Study Repository and knowledge gained from the web-site to help achieve the goals of the design workshop.	1	5	4		
2	The design workshop helped me understand the commonalities and differences in housing design in other European countries.	3	5	2		
3	The topics of the design workshop should be changed.	1	3	4		2
4	The design workshop was well organised.	2	7		1	
5	I enjoyed working in my group at the design workshop.	3	4	3		
6	I gained new insights about housing through	3		2		

		A	B	C	D	E
	collaboration with students and professors from other schools on the design project.		5			
7	I could apply new working methods (design methods, representation techniques) to the design project, which were different to the ones used during the design studio work at my university.	2	4	4		
8	Language differences were a problem in my group.		4	5	1	
9	The final critique session at the end of the workshop was very helpful to my learning.	1	6		3	
10	The credit points awarded were appropriate for the learning activities.	1	8			1

Appendix 3: Staff Questionnaire

*OIKODOMOS is a new project which is further developing the work of HOUSING@21.EU for supporting students learning about social housing. Your responses will be important in helping to guide further developments of the environment, process and content used within HOUSING@21.EU, and will be stored **anonymously** and analysed. The results summary will be available from the project web site,* www.oikodomos.org*.*

Please ring the option most appropriate.

Background information

Name: **Gender:**   Male   Female

Nationality:

Age range: 20-25 / 26-30 / 31-40 / 41-50 / 51-60 / over 60

Institution: HFT, Fachhochschule Stuttgart

W&K, Sint-Lucas, Ghent/Brussels

BTU, Bialystok

UL, Liverpool

URL, Barcelona

In which course(s) were you using HOUSING@21.EU

Level of study: Undergraduate   Masters

Which Year(s) of study did you use:

Housing@21.eu learning space: 1 2 3 4 5

Did you participate in a summer Design Workshop using HOUSING@21.EU?

	Yes	No	
If yes in which study year:	03-04	04-05	05-06

Evaluation of Platforms and Process in the preparatory courses and seminars taking place at your School, previous to the Summer Design Workshops

Please score each criteria according to the values given below. We would appreciate any comments or thoughts giving more information about the reasons for your score:

A – strongly agree, **B** – agree , **C** - disagree, **D** – strongly disagree, **E** – don't know

	Design Evaluation Criteria	A	B	C	D	E
1	The case study repository was easy to use.					
	Comments					
2	Required tools were included (e.g. <u>to add items / keywords/ cases ; to group cases)</u>	A	B	C	D	E
	Comments					
3	All the materials in the learning space were easy to access	A	B	C	D	E
	Comments					
4	The processes to get technical support were adequate.	A	B	C	D	E
	Comments					
5	There was a clear link between use of HOUSING@21.EU and assessment of students (formative or summative)	A	B	C	D	E
	Comments					
6	The case study repository enabled the students to explore critical issues collaboratively	A	B	C	D	E
	Comments					
7	The learning process encouraged analysis of the connections between social, economical, technological aspects and urban-architectural concepts.	A	B	C	D	E
	Comments					
8	The students found the discussion forums useful for developing their group work	A	B	C	D	E
	Comments					
9	The case study repository was a useful support for reflection	A	B	C	D	E
	Comments					

10	Using HOUSING@21.EU improved learning outcomes for my students (e.g improved knowledge / understanding / skills)	A	B	C	D	E
	Comments					
11	I enjoyed using the HOUSING@21.EU Case Study Repository	A	B	C	D	E
	Comments					
12	Changes are needed to improve HOUSING@21.EU so that it supports teaching and learning more effectively	A	B	C	D	E
	Comments (Please specify any changes you would like)					

We would also like to talk with you about your experiences of using HOUSING@21.EU. If you are willing to talk with us please provide your email address and/or phone number and we will be in touch:

……………………………………………………………………………..

…………………………………………………………………………………

Please return the completed questionnaire to katalisys@aol.com or get in touch with us if you have any questions.

Thank you for your time

Appendix 4: Questions to guide the semi-structured interviews with staff:

OIKODOMOS: Questions to guide the semi-structured interviews with **staff**:

1) What went well? Why?

2) What did not go well? Why?

3) What, if anything could have been done differently?
    (if the extent of using the resources in HOUSING@21.EU not covered, ask specifically)

4) Please describe your use of the case study library as a tool to support learning?

5) How did you asses what the students learnt?
    For example moderating the web discussions
        Process, Final output, Other
    When viewing the design proposals
    (If not clear ask "What is the link between the processes of teaching, learning and assessment?")

6) What significant outcomes are you aware of from HOUSING@21.EU? How would you value them?
    (if Housing@21 environment not mentioned, ask specifically)

7) Did you disseminated HOUSING@21.EU outcomes
    a) locally?
    b) nationally?
    c) internationally?

8) How did HOUSING@21.EU affect
    d) you personally?
    e) your colleagues?
    f) your students *(if appropriate; if not mentioned ask about no. of students using the resources)*?

9) What are your expectations of the OIKODOMOS follow on project? What will be your role in   it, if any?
    (if acting on feedback from evaluation not mentioned, ask specifically)

10) What would you like to be the lasting impact of OIKODOMOS?

11) Is there anything else you'd like to say about the project processes or intended outcomes?