

THE GLASGOW SCHOOL OF ART

Mackintosh School of Architecture
The Glasgow school of Art , Scotland, UK
PhD of Architectural Study

Research Title :

**Parametric design methodologies for complex buildings, with
particular reference to hospital design.**

Research Questionnaire Survey

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- For CAD Consultants -

Research Brief:

This study focuses on the subjective use of CAD software applied in hospital design process in relation to the software's performance during design stages.

Questionnaire Instructions:

This questionnaire has three parts –

3 Sections present only one answer to each question.

*Please answer all questions.

You will be asked about your professional backgrounds such as design media and software experience.

CAD Specialist

* Associated office Title: _____

1. How many years have you used CAD software packages?

- 1-2 years.
- 3-5 years.
- 5-10 years.
- Over 10 years.

2. Which of the following design media you use at the design process?

- Freehand sketches.
- Physical models.
- Conventional CAD (AutoCAD or Micro station) & 3D models.
- Parametric Tools – BIM software (Revit or Archi CAD).
- Algorithmic Tools – Grasshopper or Generative Component.

a) Creativity cluster

3. To what extent do you think that using CAD software created novel/innovative design idea about materials? * *To what extend ...means the level or effect here*

(For example: Varied design patterns and materials been used in the final facade design)

- None
- Slightly
- Moderately
- Above average
- Immensely/Greatly

4. To what extent do you think that using CAD software created variation in building design shapes? * *To what extend ...means the level or effect here*

- None
- Slightly
- Moderately
- Above average
- Immensely/Greatly

5. To what extent do you think that using CAD software achived novel idea overall in design scheme/final project?

- None
- Slightly
- Moderately
- Above average
- Immensely/Greatly

6. Did CAD software help you to engage with a greater level of detail in design schemes ?

(For example: 3D software provides real-time visualizations for the design process.)

- None
- Slightly
- Moderately
- Above average
- Immensely/Greatly

7. To what extent do you think that using CAD software enhanced the management of complex in design schemes ? * *To what extend ...means the level or effect here*

(For example: Multi-layers of drawing or design phasing revise.)

- None
- Slightly
- Moderately
- Above average
- Immensely/Greatly

b) Technical cluster

8. To what extent do you think that using CAD software increased the netness/*connection* in design schemes ?
- None
- Slightly
- Moderately
- Above average
- Immensely/Greatly
9. Did CAD software help you in the planning process of design schemes ?
- None
- Slightly
- Moderately
- Above average
- Immensely/Greatly
10. To what extent do you think that using CAD software has encouraged you to adopt symmetry in the final design compositional scheme ?
- None
- Slightly
- Moderately
- Above average
- Immensely/Greatly

11. Did CAD software help you to express a greater level of meaning
(Architectural message) in design schemes ?

(Architectural message includes spatial concept , functional design ...etc)

- None
- Slightly
- Moderately
- Above average
- Immensely/Greatly

c) Aesthetic judgment

12. Did CAD software help you to create a greater level of likeableness and
visual appeal the finished schemes ?

- None
- Slightly
- Moderately
- Above average
- Immensely/Greatly

13. To what extent do you think that using CAD software has helped you to
produce the finished scheme/product that you think are worth displaying?

- None
- Slightly
- Moderately
- Above average
- Immensely/Greatly

The end of questionnaire

Thank you for taking time to complete this questionnaire, your contribution is extremely valuable and will help improve the CAD design in hospital practice today and its potential for future healthcare facilities.

All information collected will be kept strictly confidential for research purpose only and will remain anonymous.

If you have any questions, please do not hesitate to contact me via email on :
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