# Assignment 1: Decision Claim

### Identifying and Framing Your Design Research Question

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**Due:** End of Week 2
**Weight:** 15% of final grade
**Length:** 2-3 pages + 1 visual summary
**Format:** PDF submission via course portal

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## Assignment Overview

**A1: Decision Claim** establishes the foundation for your semester-long research brief. You will identify a specific design object (building element, space type, or system) and articulate a testable claim about its performance, impact, or optimal configuration. This assignment focuses on **problem framing** — converting design intuitions into questions that evidence can answer.

### Learning Objectives

By completing this assignment, you will:

1. **Identify a suitable design object** at an appropriate scale for evidence-based investigation
2. **Frame a testable claim** that can be evaluated with available data and methods
3. **Define stakeholders** who would benefit from evidence about your claim
4. **Articulate the decision context** where your evidence would be applied
5. **Scope your investigation** realistically within course constraints

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## What Is a "Decision Claim"?

A **decision claim** connects a specific design choice to a measurable outcome that matters to identifiable stakeholders. It moves beyond aesthetic preference to ask: *What evidence would help us choose between alternatives?*

### Good Decision Claims Have Four Elements:

#### 1. Design Object (What you're investigating)

- Specific enough to test systematically
- Broad enough to generate useful evidence
- Accessible for data collection within semester timeframe

**Examples:** - Window-to-wall ratios in Hong Kong residential towers - Ceiling height in collaborative workspaces
- Green roof configurations for urban buildings - Wayfinding signage systems in hospital environments

#### 2. Performance Dimension (What you're measuring)

- Clearly defined and measurable
- Connected to stakeholder concerns
- Achievable with available tools and methods

**Examples:** - Energy performance, daylighting quality, thermal comfort - User satisfaction, space utilization, productivity metrics - Construction cost, maintenance requirements, lifecycle impact

#### 3. Stakeholder Group (Who needs this evidence)

- Specific decision-makers who would use your findings
- Clear understanding of their constraints and priorities
- Realistic access for validation and feedback

**Examples:** - Residential developers in dense urban markets - Corporate facility managers optimizing workplace design - Hospital administrators balancing patient outcomes and costs - Municipal planners developing green infrastructure policies

#### 4. Decision Context (When/how evidence would be applied)

- Real situations where choices must be made
- Clear alternatives being compared
- Specific decision criteria and trade-offs

**Examples:** - Early design phase when major systems are being selected - Retrofit decisions for existing building portfolios - Policy development requiring performance standards - Post-occupancy evaluation informing future projects

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## Assignment Requirements

### Core Deliverables

#### Part 1: Problem Statement (1 page)

Write a clear, concise problem statement addressing:

**Design Object Description** - What specifically are you investigating? (Be precise about scale, typology, context) - Why is this object/system/space important in contemporary practice? - What design variables or alternatives will you focus on?

**Current Decision-Making Process** - How are decisions about this object typically made now? - What information do decision-makers currently use? - What gaps or uncertainties exist in current practice?

**Proposed Claim** - State your testable claim in one clear sentence - Explain why you believe this claim might be true (initial hypothesis) - Identify what evidence would support or refute your claim

#### Part 2: Stakeholder Analysis (1 page)

Identify and analyze your primary stakeholders:

**Primary Decision-Makers** - Who would directly use your evidence to make design decisions? - What are their main concerns, constraints, and success criteria? - How do they currently evaluate alternatives for your design object?

**Secondary Stakeholders** - Who else is affected by decisions about your design object? - What outcomes matter most to these groups? - How might their priorities conflict with primary decision-makers?

**Evidence Requirements** - What type of evidence would be most convincing to your stakeholders? - What level of precision/confidence would they require? - What format would make your findings most actionable for them?

### Part 3: Scope and Constraints (0.5-1 page)

Realistically assess what you can accomplish this semester:

**Available Resources** - What data sources are accessible to you? - What tools and methods can you realistically learn and apply? - What time and budget constraints will shape your approach?

**Manageable Scope** - How will you narrow your investigation to be achievable? - What limitations will you acknowledge upfront? - What would constitute "success" for this project?

### Part 4: Visual Summary (1 page)

Create a single-page visual that communicates: - Your design object with key variables highlighted - Your proposed claim as a testable question - Your primary stakeholders and their decision context - The type of evidence you plan to collect

This can be a diagram, infographic, or annotated photographs — choose the format that best communicates your concept.

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## Differentiated Expectations

While all students complete the same core deliverables, expectations vary by program level:

### Undergraduate Students

- **Focus:** Clear problem identification with instructor guidance
- **Scope:** Well-defined, smaller-scale objects (single building element or system)
- **Stakeholders:** Primary focus on one main stakeholder group
- **Evidence:** Straightforward metrics accessible through existing data or simple measurement

### MArch Students

- **Focus:** Professional memo format suitable for practice contexts
- **Scope:** Building-scale or neighborhood-scale investigations
- **Stakeholders:** Multiple stakeholder groups with competing priorities
- **Evidence:** Industry-relevant metrics and decision criteria

### PhD Students

- **Focus:** Research question suitable for systematic investigation
- **Scope:** Multi-building or policy-scale questions
- **Stakeholders:** Complex stakeholder networks including regulatory bodies
- **Evidence:** Methodologically rigorous approaches with uncertainty quantification

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## Examples of Strong Decision Claims

### Example 1: Residential Energy Performance

**Design Object:** Window-to-wall ratios in Hong Kong high-rise residential buildings
**Claim:** "Optimizing window-to-wall ratios can reduce residential cooling energy by 15-25% while maintaining acceptable daylighting levels"
**Stakeholders:** Residential developers, building owners, energy policy makers
**Decision Context:** Early design phase for new residential developments

### Example 2: Workplace Productivity

**Design Object:** Open office acoustics and spatial configuration
**Claim:** "Strategic placement of acoustic treatments can improve reported productivity by 20% without major space reallocation"
**Stakeholders:** Corporate facility managers, workplace designers, HR departments
**Decision Context:** Office renovation decisions and workplace strategy planning

### Example 3: Public Space Usage

**Design Object:** Seating arrangements in urban plazas
**Claim:** "Flexible seating configurations increase space utilization by 40% compared to fixed bench arrangements"
**Stakeholders:** Urban planners, park departments, public space designers
**Decision Context:** Public space design guidelines and renovation priorities

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## Assessment Criteria

Your assignment will be evaluated on:

### Clarity and Feasibility (40%)

- **Clear problem definition**: Is your design object specific and well-bounded?
- **Testable claim**: Can your claim be evaluated with evidence?
- **Realistic scope**: Is your investigation achievable within course constraints?

### Stakeholder Understanding (30%)

- **Relevant stakeholders**: Have you identified appropriate decision-makers?
- **Decision context**: Do you understand when/how your evidence would be used?
- **Evidence requirements**: Do you know what would convince your stakeholders?

### Communication Quality (20%)

- **Professional presentation**: Is your document clear, well-organized, and error-free?
- **Visual effectiveness**: Does your visual summary communicate key concepts clearly?
- **Appropriate audience**: Is your writing suitable for your intended stakeholders?

### Research Potential (10%)

- **Interesting question**: Will investigating this claim generate useful knowledge?
- **Methodological feasibility**: Can you reasonably collect relevant evidence?
- **Broader relevance**: Could your findings inform similar decisions elsewhere?

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## Common Pitfalls to Avoid

### Scope Issues

- **Too broad**: "How to design sustainable buildings" (instead: focus on one specific system/element)
- **Too narrow**: "The optimal paint color for my bedroom" (instead: scale up to stakeholder relevance)
- **Too abstract**: "How to make beautiful architecture" (instead: focus on measurable performance)

### Claim Problems

- **Untestable**: Claims about aesthetic preference or cultural meaning
- **Already proven**: Well-established relationships documented in literature
- **Impossible to measure**: Outcomes requiring unavailable data or methods

### Stakeholder Misalignment

- **No real stakeholders**: Academic exercise without practical application
- **Unrealistic access**: Stakeholders who won't engage with student research
- **Mismatched priorities**: Evidence that doesn't address stakeholder concerns

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## Getting Started

### Week 1 Activities

1. **Browse examples**: Look at evidence-based design studies in journals and practice
2. **Identify interests**: What design decisions intrigue you? What performance questions do you have?
3. **Talk to practitioners**: What design decisions do working architects struggle with?
4. **Check feasibility**: What data and methods are realistically available to you?

## Resources for Topic Development

- **Building performance databases**: Energy Star, LEED project database, local building surveys
- **User experience research**: POE studies, occupant satisfaction surveys, space utilization data
- **Professional publications**: Architectural Record, Journal of Green Building, Environment and Behavior
- **Local contexts**: Hong Kong buildings, climate, regulations, and construction practices

## Getting Help

- **Office hours**: Wednesdays 4-6pm at KB722, or by appointment
- **Peer discussion**: Week 1 in-class workshop for topic development
- **Online forum**: Course Slack for questions and idea sharing
- **Writing center**: HKU academic support for clear technical writing

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**Remember:** A strong Decision Claim sets up your entire semester project. Invest time in getting this foundation right — it will make all subsequent assignments clearer and more focused.

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*This assignment launches your journey into evidence-based design thinking. Choose a question that genuinely interests you and matters to real decision-makers.*