AIA Research Primer

AIA Research Categories

Research may be
- ***Basic research*** (fundamental scientific investigation)
- ***Applied research*** (applying basic research findings to specific situations)
- ***Developmental research*** (developing applied research results for general situations)

Currently the AIA looks at research within the following context.

Three categories of ***basic*** consequence: building typology, practice issues, or materials and methods of construction.

Four domains of ***applied*** architectural knowledge: Leadership, Practice, Design or Building Performance.

Seven broad ***developmental*** research agenda areas: Social, Technological, Environmental, Cultural, Organizational, Design, and Educational.

(Note—this research primer does not include market research, which is an entirely separate program within the AIA.)

Details on Architectural Research Agenda Areas:

The description of each agenda area below includes four sections:
      I. General definition
      II. Definition application within architecture
      III. Areas of exploration
      IV. Techniques used to gather data

Social research

I. Social research is about measuring, describing, explaining, and predicting social phenomena in general and site-specific settings.

II. In architecture, this relates to program development, design perception, estimation of design impacts, and postoccupancy evaluation.

III. Social research in architecture explores

- social and economic hierarchies

- social attitudes

- values and behaviors toward design

- factors that motivate and constrain individuals and groups in society

IV. Architectural social researchers collect data through surveys, focus groups, in-depth interviews, and postoccupancy evaluations.

Technological research

I. Technological research is about studying activity by which humans systematically manipulate their physical environment with artifacts, procedures, and organizational arrangement for the production of goods and services.

II. In architecture, this relates to the use of information systems as well materials and methods of construction.

III. Technological research in architecture explores

- Computer software (programs)—developed to alleviate rudimentary tasks

- Computer models—developed to evaluate solutions prior to acceptance

- Assessment matrix—developed to rank and order items, tasks, and outcomes

- A general procedure or method—developed to achieve homogenous results

- A product—developed either as a direct result or to achieve a desired result

IV. Architectural technology researchers collect data through use of analytical tools, mock-ups, destructive testing, and comparative evaluations.

Environmental research

I. Environmental research studies the complex aggregated factors that make up individuals' technological and natural surroundings.

II. In architecture this relates to a person's individual, built, and natural environments.

III. Environmental research in architecture explores

- Ecologies—the reciprocal actions and reactions of an entity and its individual, built, and natural environments

- Optimizations—the tendency of a system or process to seek the path of least resistance in achieving reliable operational capability

- Waste streams—the by-products of the production/construction cycle and management of the stream

IV. Architectural environmental researchers collect data through observation, measurements, establishment of baselines, flow studies, modeling, and comparative evaluations.

Cultural research

I. Cultural research is a holistic approach to "culture"—whereby culture is understood as a formative and inextricably linked dimension of all aspects of social, political, and economic life.

II. In architecture this research advances a solution-based approach to humanities and social sciences in direct collaboration with communities, organizations, and groupings of people who share common traits.

III. Cultural research in architecture explores

- A series of actions or method of procedure regularly followed, characteristic of an individual or group, also known as ritual pattern

- Genetic developments, i.e., relating to or determined by the origin, development, or causal antecedents of culture

- Generic situations that imply a stable form and a nonproprietary nature

- Inherently political developments, i.e., assumptions that an organizational arrangement by its very nature is political in a specific way or is accepted for reasons of practical (political) necessity

- Intentionally political developments, i.e., assumptions that arrangements and uses are for political reasons; implies an artifact has politics

IV. Architectural cultural researchers collect data through observation, testing, and historical data research.

Organizational research

I. Organizational research is about attitudes, motivations, and behaviors of people within a specific organization—how the people respond to the organization and how the organization responds to the people.

II. In architecture this research revolves around how organizations arrange their spaces and how individuals occupy the space.

III. Organizational research in architecture explores

- How individual responses relate to desired corporate outcomes in terms of architecture

- How the underlying culture of the organization versus an individual resolves itself in the distinct cultures of various departments and how that affects space usage

- Space allocations

- How people move through spaces, social cohesion, and exclusion

IV. Architectural organizational researchers collect data through observation, space syntax modeling, floor area allocations, and staff satisfaction surveys.

Design Research

I. Design research involves aesthetics and technologies that enable fresh and effective solutions to challenges of individual, social, economic, and cultural importance.

II. In architecture this research revolves around systematic approaches to achieve improved design solutions and approaches.

III. Design research in architecture explores

- Evidence-based design

- Emerging design strategies and practices

- Historical antecedents; either building typology or stylistically

- Physiological studies

IV. Architectural design researchers collect data using critiques of contemporary design practice/projects, design investigation and speculation, observation, and reflection.

Educational Research

I. Education Research involves examination of methodologies, curricula, learning styles, performance standards, metrics, and rubics.

II. Educational Research in architecture examines the pedagogies of architecture and related fields.

III. Educational Research in architecture explores

- Teaching styles

- Learning styles

- Classroom / Learning environments

- Career stage pathways

IV. Educational researchers collect data using critiques of contemporary practices, speculation, observation, reflection, and surveys.