# Project Brief Template

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**Instructions**: Copy this template for each new project. Fill out all sections before moving from seed to active status. Update regularly as the project evolves.

## Project Information

**Project Title**: [Clear, descriptive title]

**Project ID**: [Unique identifier, e.g., IDEEAS-2024-001]

**Current Stage**: [ ] Seed [ ] Active [ ] Completed [ ] Archived

**Research Thrust**: [ ] AI-Powered Pedagogy [ ] Decision Architectures [ ] Cognitive Modeling [ ] Sustainable Systems

**Start Date**: [YYYY-MM-DD]

**Expected Completion**: [YYYY-MM-DD]

**Last Updated**: [YYYY-MM-DD]

## Team and Roles

**Project Lead (DRI)**: [Name and role]

**Principal Investigator**: [Name]

**Team Members**: - [Name] - [Role] - [Specific responsibilities] - [Name] - [Role] - [Specific responsibilities] - [Name] - [Role] - [Specific responsibilities]

**External Collaborators**: [If any]

**Mentoring Relationships**: - [Graduate student] mentored by [Postdoc/Faculty] - [Undergraduate] supervised by [Graduate student/Postdoc]

## Project Overview

### Research Question(s)

[1-2 clear, specific research questions that this project addresses]

### Hypothesis/Expectations

[What do you expect to find? What are your theoretical predictions?]

### Significance and Impact

[Why does this research matter? How does it advance the field? What are the potential applications?]

### Connection to Lab Mission

[How does this project align with the lab’s mission and research thrusts?]

## Background and Literature

### Key Literature

[3-5 most important papers/sources that inform this work] - [Citation 1] - [Brief summary of relevance] - [Citation 2] - [Brief summary of relevance] - [Citation 3] - [Brief summary of relevance]

### Theoretical Framework

[What theories or models guide this research?]

### Gap in Knowledge

[What specific gap does this research fill?]

## Methodology

### Research Design

[Experimental, observational, mixed-methods, etc.]

### Participants/Data Sources

* **Population**: [Who/what are you studying?]
* **Sample Size**: [Target N and justification]
* **Recruitment**: [How will you recruit participants/gather data?]
* **Inclusion/Exclusion Criteria**: [If applicable]

### Data Collection

* **Methods**: [Surveys, interviews, experiments, archival data, etc.]
* **Instruments**: [What tools/measures will you use?]
* **Timeline**: [When will data collection occur?]
* **Location**: [Where will data collection happen?]

### Analysis Plan

* **Quantitative**: [Statistical methods, software]
* **Qualitative**: [Coding approach, analysis framework]
* **Mixed Methods**: [Integration strategy]

### Tools and Resources

* **Software**: [R, Python, NVivo, etc.]
* **Hardware**: [Special equipment needed]
* **Data Storage**: [Where and how data will be stored]
* **Computing Resources**: [HPC, cloud computing, etc.]

## Ethical Considerations

### IRB Status

[ ] Not required [ ] Submitted [ ] Approved [ ] Modifications needed

**IRB Number**: [If applicable]

### Ethical Issues

[Privacy, consent, potential harms, data security, etc.]

### Risk Mitigation

[How will you address potential ethical concerns?]

### Responsible AI Practices

[If applicable - bias, fairness, transparency, safety considerations]

## Project Timeline and Milestones

### Phase 1: Planning and Setup [Dates]

* Literature review completion
* IRB approval (if needed)
* Tool/instrument development
* Pilot testing
* Team training

### Phase 2: Data Collection [Dates]

* Participant recruitment
* Data collection milestone 1
* Data collection milestone 2
* Data quality checks
* Collection completion

### Phase 3: Analysis [Dates]

* Data cleaning and preparation
* Preliminary analysis
* Full analysis completion
* Results validation
* Interpretation and discussion

### Phase 4: Dissemination [Dates]

* First draft of findings
* Internal presentation
* Conference abstract submission
* Manuscript preparation
* Publication submission

### Key Deadlines

* [Conference deadline]: [Date]
* [Grant report due]: [Date]
* [Thesis chapter due]: [Date]
* [Other important deadlines]

## Deliverables and Outputs

### Academic Outputs

* Conference presentation(s): [Which conferences?]
* Journal article(s): [Target journals?]
* Thesis/dissertation chapter
* Workshop or tutorial

### Practical Outputs

* Software/tools
* Dataset for sharing
* Policy recommendations
* Educational materials
* Industry report

### Open Science Outputs

* Code repository
* Data sharing (if appropriate)
* Reproducible analysis
* Documentation and tutorials

## Resources and Budget

### Personnel

* [Role]: [Hours/week] x [Weeks] = [Total hours]
* [Role]: [Hours/week] x [Weeks] = [Total hours]

### Equipment and Software

* [Item]: [Cost]
* [Software license]: [Cost]

### Travel and Conferences

* [Conference]: [Estimated cost]
* [Research travel]: [Estimated cost]

### Other Expenses

* [Participant compensation]: [Cost]
* [Materials]: [Cost]

**Total Estimated Cost**: $[Amount]

**Funding Source**: [Grant, department, etc.]

## Risk Assessment

### Technical Risks

* [Risk]: [Likelihood] - [Impact] - [Mitigation strategy]
* [Risk]: [Likelihood] - [Impact] - [Mitigation strategy]

### Timeline Risks

* [Risk]: [Likelihood] - [Impact] - [Mitigation strategy]
* [Risk]: [Likelihood] - [Impact] - [Mitigation strategy]

### Resource Risks

* [Risk]: [Likelihood] - [Impact] - [Mitigation strategy]

### Contingency Plans

[What will you do if major assumptions prove wrong or key resources become unavailable?]

## Success Metrics

### Primary Success Criteria

* [Specific, measurable outcome]
* [Specific, measurable outcome]

### Secondary Success Criteria

* [Additional positive outcomes]
* [Learning objectives achieved]

### Minimum Viable Outcome

[What’s the minimum result that would still be valuable?]

## Communication and Reporting

### Internal Reporting

* **Weekly Check-ins**: [Day/time with whom]
* **Monthly Reviews**: [Schedule and participants]
* **Milestone Reports**: [When and to whom]

### External Communication

* **Stakeholder Updates**: [If applicable]
* **Collaborator Meetings**: [Schedule]
* **Public Communication**: [Social media, blog posts, etc.]

## Notes and Updates

### Decision Log

[Record major decisions made during the project] - [Date]: [Decision] - [Rationale] - [Who decided]

### Lessons Learned

[Update throughout the project] - [What worked well?] - [What would you do differently?] - [Unexpected findings or insights?]

### Change Log

[Track major changes to the project plan] - [Date]: [Change] - [Reason] - [Approved by]

**Review Schedule**: This brief should be reviewed and updated monthly during active phases, and at each stage transition (seed → active → completed).