

Segment 1: Pain Relievers and Gain Creators

Key pains related to process and results in this particular stage of the project (e.g., identifying and selecting research questions), summarized from 4Q analysis:

- ...
- ...
- ...

→ **Pain relievers** from involving crowds?

- ...
- ...
- ...

Key gains related to process and results in this particular stage of the project (e.g., identifying and selecting research questions), summarized from 4Q analysis:

- ...
- ...
- ...

→ **Gain creators** from involving crowds?

- ...
- ...
- ...

Feasibility check: Can the design really address the pains/gains you identified?
Opportunity check: Can crowd involvement address pains/gains not considered before?

Segment 2: Strategic Design Choices

Crowd Science Paradigm Diamond
(Why involve a crowd?)

- Crowd volume: ...
- Broadcast search: ...
- User crowd: ...
- Community production: ...
- Crowd wisdom: ...

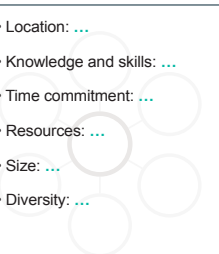


AKRD Crowd Contribution Matrix
(What does the crowd contribute?)

Activities	...
Knowledge	...
Resources	...
Decisions	...

Six Crowd Characteristics
(Who is the crowd?)

- Location: ...
- Knowledge and skills: ...
- Time commitment: ...
- Resources: ...
- Size: ...
- Diversity: ...



Feasibility check: Is the design realistic?
 What adjustments need to be made?

Segment 3: Implementation Challenges and Solutions

Key challenges and solutions specific to this particular stage of the project:

- (See chapters 4–11)

Organizational challenges and solutions that cut across all stages (see chapters 13–14):

- Dividing and allocating tasks: ...
- Coordinating crowd members: ...
- Training and enabling learning: ...
- Increasing quality and evaluating contributions: ...
- Motivating crowd members: ...
- Recruiting crowd members: ...

Research integrity and ethical issues that cut across all stages (see chapter 15):

- Ensuring quality and preventing misconduct: ...
- Recognizing effort and sharing project outputs: ...
- Role of AI: Automation, augmentation, management: ...
- Privacy, safety, institutional oversight: ...