

## Team Simulation Project: Check-in 1 Summary

### *Research Question and Simulation Design*

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**Research Question:** Does a highly confident but less knowledgeable leader outperform a highly competent but hesitant leader in team decision-making?

**Task Design:** Have the leaders lead a team to make a presentation and present it. The knowledgeable team leaders will have prior knowledge of the subject while the less knowledgeable ones will not have any. Group members will stay consistent but the team leaders will be alternated out.

#### **Team Composition Variables:**

- Number of agents: 4
- Agent roles: Leaders, team members
- Key attributes/variables
  - **Team Leader 1:** High confidence, High competent  
Personality traits: extroversion, accountable, assertive  
Expertise areas: Knowledgeable, Leadership
  - **Team Leader 2:** High confidence, Low competent  
Personality traits: Collaborative, supportive, empathetic  
Expertise areas: Public speaking,
  - **Team Leader 3:** Low confidence, High competent  
Personality traits: Introvert, hesitant  
Expertise areas: Leadership, Technical knowledge, strategic planning, problem solving
  - **Team Leader 4:** Low confidence, Low competent  
Personality traits: Introverted, Hesitant, lack confidence, Ignorant  
Expertise areas: basic project management, basic communication skills
- Same Team members
  - **Team member 1**  
Personality traits: Analytical, detail-oriented, reliable  
Expertise areas: Data analysis, research, technical writing

- **Team member 2**  
 Personality traits: creative, innovative, adaptable  
 Expertise areas: Design, user experience, marketing
- **Team member 3**  
 Personality traits: Introverted, Collaborative, supportive  
 Expertise areas: conflict resolution
- **Team member 4**  
 Personality traits: Indecisive, low adaptability  
 Expertise areas: research

- Experimental variables: The Team will alternate between the 4 leaders, with the 4 group members staying consistent

### **Outcome Metrics:**

- Process metrics: [communication patterns, participation rates, etc.]
  - We want to test which agent communicates and leads the best, and while leading the team.
- Performance metrics: [task completion time, solution quality, etc.]
  - We want to test which agent generates the highest outcome and efficiency by comparing between confidence and competence.
- Team experience metrics: [satisfaction, psychological safety, etc.]
  - We wanted to test how far a confident and competent person can fake it until they make it while contributing equality to the team. We also will test group satisfaction to see the experience working under the leaders.

### **Connection to Course Concepts:**

*[Describe what you hope to learn from this simulation and how it connects to team leadership concepts from the course. Reference specific theories, models, or frameworks we've discussed.]*

In connection to the course, we have learned that an extroverted person is more likely to be the leader because they are the one that speaks up. We