

MISSION DE-BRIEF REPORT

Behavioral Assessment & Crew Dynamics Analysis

Mission: Stellar Dawn
Date: October 24, 2025
Group ID: Class 9B - Cohort Alpha
Duration: 87 Minutes

EXECUTIVE SUMMARY

This report summarizes behavioral data, collaborative patterns, and individual decision-making metrics observed during the Stellar Dawn simulation.

This assessment is not based on self-reporting. The data below is derived from tracking over 1,200 discrete interactions, decisions, and response times during a high-pressure collaborative problem-solving exercise.

Key Findings Snapshot

- **Overall Team Performance:** The crew successfully navigated the primary crisis but struggled with information bottlenecks during the mid-mission phase.
- **Leadership Dynamic:** Leadership was Distributed. While student M.C. held the Captain title, strategic direction often originated from technical roles (A.P. and J.W.) during domain-specific challenges.
- **Area for Growth:** Cross-console collaboration scores were in the 34th percentile, indicating a tendency for students to silo information rather than broadcast it to the team.

How to use this report:

Use Section 1 for whole-class feedback on teamwork dynamics. Use Section 2 (Individual Profiles) for parent-teacher conferences and personalized instruction planning.

SECTION 1: CREW METRICS & TEAM DYNAMICS

This section analyzes how effectively the six students functioned as an interdependent unit.

COMMUNICATION EFFICIENCY 78/100 Proficient Information volume was high, but closed-loop communication (confirming receipt) was inconsistent at 67%. Impact: Critical engineering data was missed by the Captain during the minute 30-40 crisis phase.	DECISION LATENCY 4.2 sec Average Response Time This crew made decisions rapidly, indicating high engagement and confidence. Caution: In complex scenarios, latency dropped to under 2 seconds, suggesting impulsive choices.
COLLABORATION PATTERNS 34 Cross-Console Events Pattern: Siloed Working 60% of all collaboration originated from just two students (E.V. and J.W.). Remaining four rarely initiated exchange.	LEADERSHIP EMERGENCE Distributed Authority Shifted by Problem Type Tactical Tasks: Led by M.C. (Captain) Data Analysis: Led by A.P. (Science) Information Flow: Managed by E.V. (Comms)

Teacher Note: Distributed leadership is a healthy dynamic indicating students respected domain expertise over hierarchical titles. Consider highlighting this pattern during class debrief.

SECTION 2: INDIVIDUAL ANALYTICS

A.P.**Science Officer**

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Behavioral Insights

A.P. demonstrated high analytical capability but required significant warm-up time to engage socially with the team.

Key Moment (Timestamp 00:41:15)

During the cascade failure event, the team was focused on engine symptoms. A.P. silently analyzed secondary data streams and identified the root cause (sensor malfunction). They hesitated for 30 seconds before sharing this critical information. Once shared, the mission trajectory immediately stabilized.

Engagement Arc

- **Phase 1 (Minutes 0-30):** Passive. Responded only when directly questioned.
- **Phase 2 (Minutes 31-60):** Reactive. Began answering unprompted questions with data.
- **Phase 3 (Minutes 61-87):** Proactive Strategic Advisor.

TEACHER-READY SUMMARY

Aisha shows exceptional analytical reasoning when given time to process. Her biggest barrier is social confidence in high-stakes moments. She has the data but doubts her authority to interrupt others to share it.

Core Competency Scores

Communication Clarity	8
<i>When she spoke, her instructions were precise and data-backed.</i>	
Collaboration Initiative	6
<i>Rarely initiated contact with other consoles.</i>	
Decision Confidence	6
<i>Hesitated to execute solutions even after identifying them.</i>	
Adaptability	9
<i>Thrived when mission parameters shifted unexpectedly.</i>	
Situational Awareness	8
<i>Maintained the best big picture view of the entire crew.</i>	

M.C.**Captain**

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Behavioral Insights

M.C. naturally stepped into the authority role, demonstrating strong command presence and rapid decision-making under pressure.

Key Moment (Timestamp 00:15:20)

During the initial launch sequence anomaly, M.C. issued three correct commands in under 10 seconds, preventing an early mission abort. Their ability to prioritize tasks under time pressure is a major strength.

Challenge Area

M.C. frequently overrode input from specialists without appearing to process it. At minute 55, the Engineering Officer advised against a specific maneuver; M.C. executed it anyway, resulting in minor hull damage.

TEACHER-READY SUMMARY

Marcus is a decisive, natural leader who is comfortable with responsibility. His growth area is active listening. He needs to learn to pause and validate input from his team before locking in a course of action.

Core Competency Scores

Communication Clarity	8
<i>Clear, directive commanding voice.</i>	
Collaboration Initiative	7
<i>High volume of output, low volume of intake.</i>	
Decision Confidence	9
<i>Extremely willing to make the final call.</i>	
Adaptability	6
<i>Struggled when his initial plan was proven unworkable.</i>	
Situational Awareness	6
<i>Hyper-focused on his own console; missed cues from others.</i>	

SECTION 3: CLASSROOM APPLICATION GUIDE

Based on the data collected during the Stellar Dawn mission, here are recommended strategies for follow-up instruction.

1. Whole-Group Debrief Discussion Starters

Use these questions to facilitate a 15-minute class discussion about the experience.

"The data shows that during the crisis at Minute 40, communication volume doubled, but closed-loop confirmations dropped by half. Why do you think we stop listening when things get stressful?"

"We observed Distributed Leadership. Did it feel like one person was in charge, or did it shift? When did you feel like the leader?"

2. Future Grouping Strategies

Suggested pairings for upcoming collaborative class projects based on complementary behavioral profiles.

Strategy: Balancing Decisiveness with Analysis

Pair: M.C. (High Confidence / Low Listening) with A.P. (High Analysis / Low Confidence)

Objective: Coach M.C. to ask A.P. for data before deciding. Coach A.P. to interrupt M.C. when necessary.

Strategy: Improving Information Flow

Pair: E.V. (Strong Communicator) with J.W. (Siloed Worker)

Objective: Task E.V. with extracting necessary information from J.W. periodically during the project.

Questions about this report? Contact us at info@mobilespaceadventures.org