

Essential Skills for
Effective
Leadership in STEM

DEVELOPING CORE LEADERSHIP SKILLS



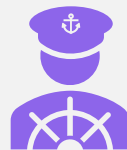
IMPORTANCE OF CORE LEADERSHIP SKILLS



- Strong leadership skills enhance team performance, collaboration, and innovation.



- Essential for building trust, fostering inclusivity, and guiding teams through challenges.



- Effective leadership in STEM is critical for addressing complex problems and driving advancement.

EMOTIONAL INTELLIGENCE (EI) IN LEADERSHIP



- Emotional Intelligence (EI) involves self-awareness, self-regulation, empathy, and social skills.



- EI allows leaders to manage their own emotions and understand others, enhancing team cohesion.



- High EI is linked to improved decision-making, conflict resolution, and resilience.

BUILDING SELF- AWARENESS



- Self-awareness helps leaders recognise their strengths, weaknesses, and emotional triggers.



- Techniques include reflection, seeking feedback, and self-assessment tools.



- Regular self-assessment improves adaptability and interpersonal effectiveness.



SELF-REGULATION TECHNIQUES

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- Self-regulation is the ability to control emotional responses, essential during high-stress situations.
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- Techniques include deep breathing, mindfulness, and focusing on long-term goals.
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- Regulated leaders maintain composure and encourage stability within their teams.



EMPATHY IN LEADERSHIP

- Empathy allows leaders to understand and connect with team members' perspectives.

- Builds trust, encourages open communication, and fosters a supportive environment.

- Empathic leaders are more effective at managing conflict and motivating their teams.

COMMUNICATION SKILLS FOR LEADERS



- Effective communication involves clarity, active listening, and adaptability.

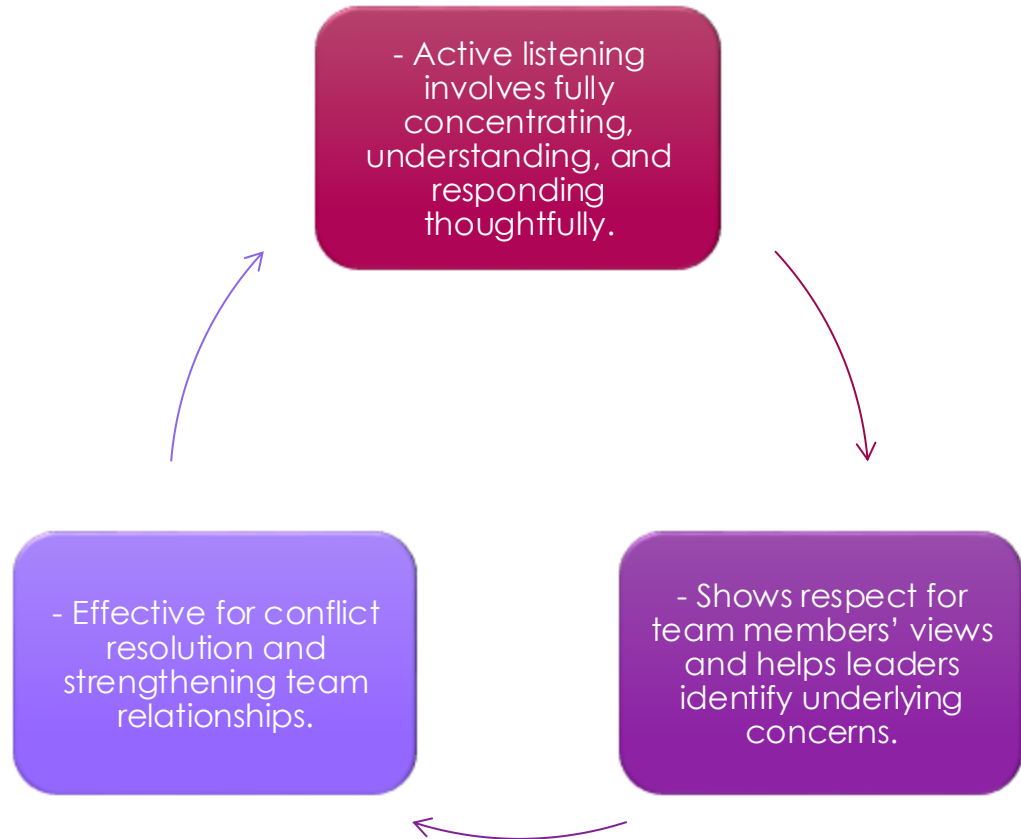


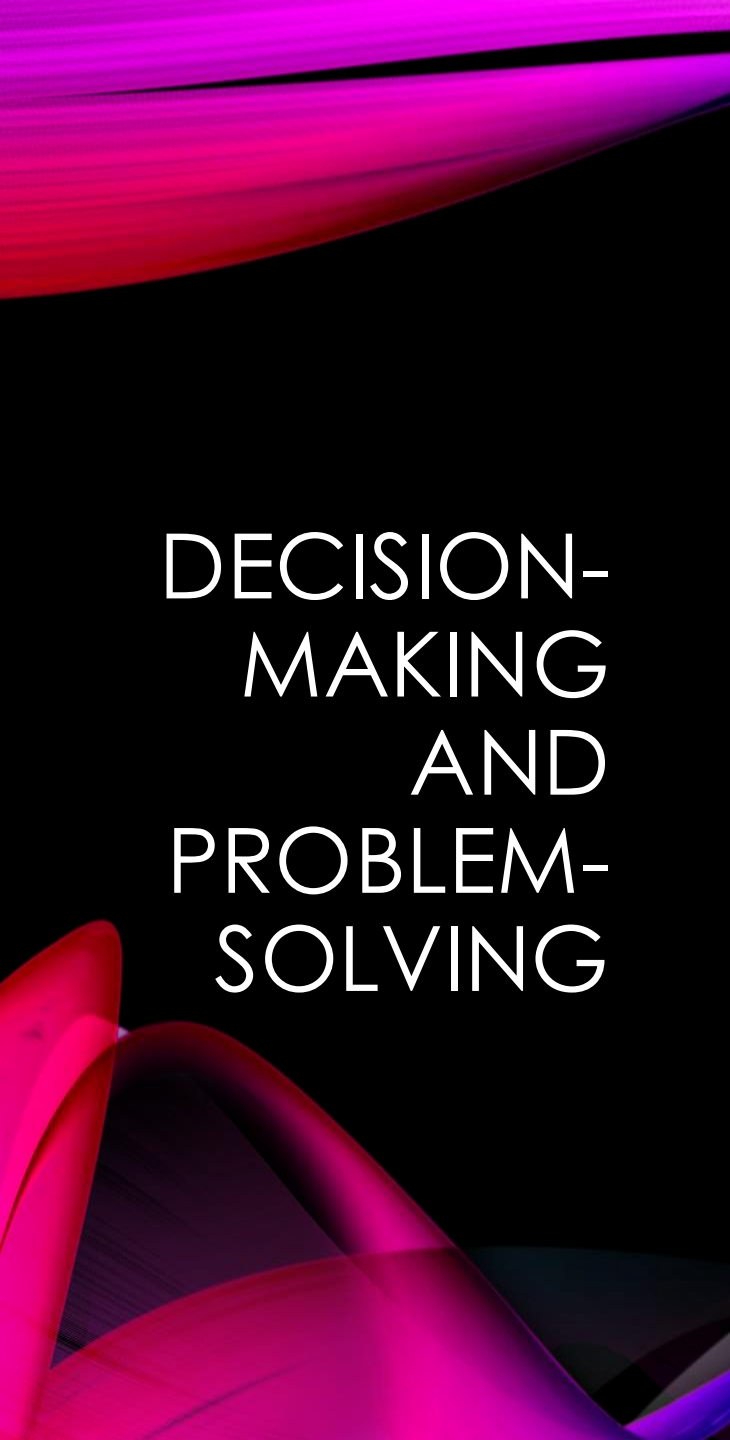
- Key to providing feedback, facilitating discussions, and setting expectations.



- Communication enhances transparency, alignment, and trust within the team.

ACTIVE LISTENING IN LEADERSHIP





DECISION- MAKING AND PROBLEM- SOLVING

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- Leaders often make complex decisions requiring analytical thinking and problem-solving skills.
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- Techniques include cost-benefit analysis, prioritisation, and collaborative problem-solving.
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- Effective decision-making helps navigate challenges and achieve team goals.

DECISION- MAKING FRAMEWORKS



- Cost-Benefit Analysis:
Weighing benefits and risks
to make informed
decisions.

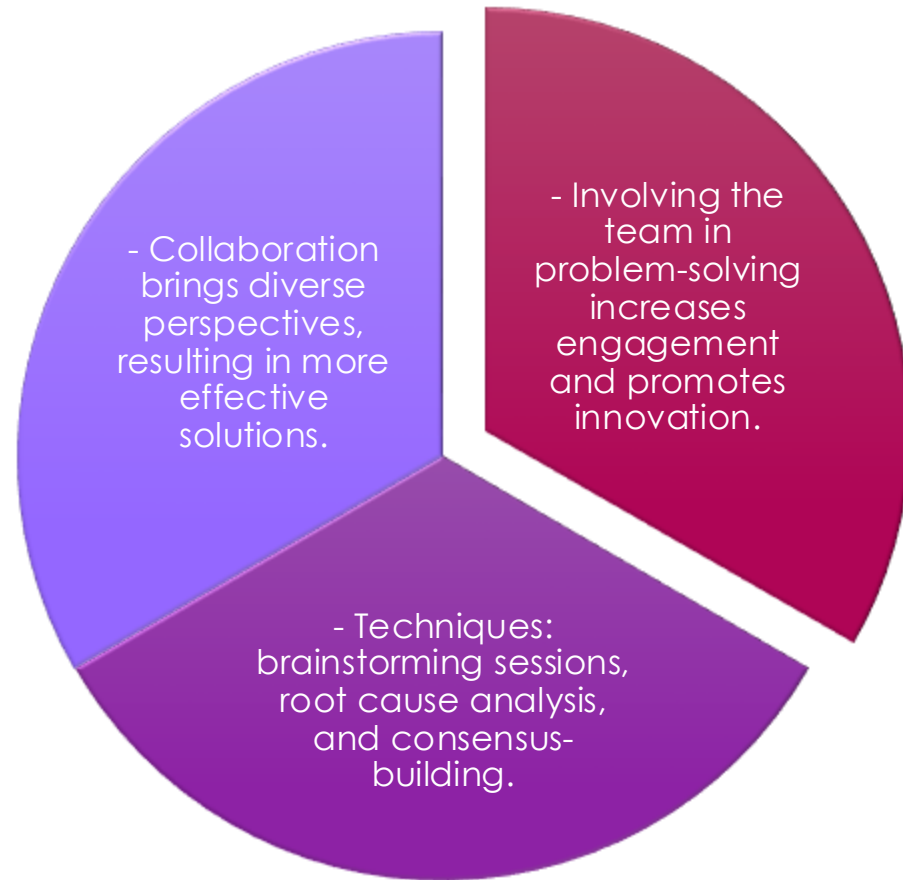


- Eisenhower Matrix:
Prioritising tasks based on
urgency and importance.



- SWOT Analysis: Evaluating
strengths, weaknesses,
opportunities, and threats
for balanced decisions.

COLLABORATIVE PROBLEM- SOLVING



CONFLICT RESOLUTION AND NEGOTIATION



- Leaders must address conflicts constructively and find mutually beneficial solutions.



- Skills include active listening, empathy, and reframing conflicts towards shared goals.



- Constructive conflict management strengthens team trust and cohesion.



DELEGATION AND EMPOWERMENT

- Effective delegation distributes tasks, empowering team members to take ownership.

- Leaders should select tasks based on team members' strengths and development needs.

- Empowerment fosters confidence and skill-building within the team.

GIVING AND RECEIVING FEEDBACK



- Constructive feedback supports individual and team growth.



- Methods: specific, actionable feedback; balancing positive and improvement-focused points.



- Receiving feedback openly promotes a culture of continuous improvement.

RECOGNISING AND REWARDING TEAM MEMBERS



- ACKNOWLEDGING TEAM MEMBERS' EFFORTS BOOSTS MORALE AND MOTIVATION.



- METHODS INCLUDE PUBLIC RECOGNITION, PRIVATE APPRECIATION, AND TEAM ACKNOWLEDGMENTS.



- FAIR AND INCLUSIVE RECOGNITION STRENGTHENS TEAM UNITY AND SATISFACTION.

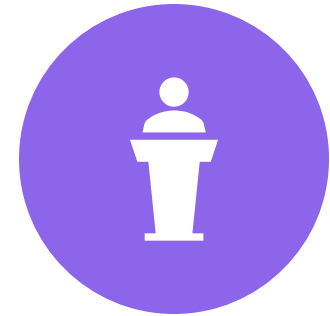
ACTIVITY: LEADERSHIP SKILLS SELF-ASSESSMENT



- PARTICIPANTS COMPLETE A SELF-ASSESSMENT ON COMMUNICATION, EI, AND PROBLEM-SOLVING.



- IDENTIFY TWO TO THREE SKILLS FOR IMPROVEMENT AND ACTION STEPS (E.G., FEEDBACK SESSIONS).



OUTCOME: DEVELOPMENT OF A PERSONALISED PLAN FOR CONTINUOUS LEADERSHIP GROWTH.

RESOURCES FOR LEADERSHIP SKILL DEVELOPMENT



- BOOKS: 'EMOTIONAL INTELLIGENCE' BY DANIEL GOLEMAN, 'THE ART OF COMMUNICATION' BY THICH NHAT HANH.



- ARTICLES: HARVARD BUSINESS REVIEW ON DECISION-MAKING AND CONFLICT RESOLUTION.



- TOOLS: SELF-ASSESSMENT QUESTIONNAIRES AND GOAL-SETTING TEMPLATES.

ADDITIONAL LEARNING RESOURCES



- Online Courses:
Leadership and
communication courses on
platforms like Coursera and
LinkedIn Learning.



- Mentorship Platforms:
Connect with mentors to
develop leadership skills.



- Team Exercises: Practice
scenarios to enhance
delegation, feedback, and
conflict resolution.



KEY TAKEAWAYS

- Core leadership skills such as EI, communication, and decision-making are essential for effective STEM leadership.

- Continuous development of these skills fosters team trust, innovation, and resilience.

- Leaders set the tone for a supportive, growth-oriented culture.

INSPIRATIONAL
QUOTE

"The function of leadership is to produce more leaders, not more followers." - Ralph Nader



True leadership empowers others, inspiring confidence and capability within the team.