

Chapter 4: Risk and Change Management

Weeks 4–5 & 10 |
CLO3, CLO5



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Risk •



Change



Analysis



Virtual Teams



Why Risk & Change Matter?

Risk and change are unavoidable in all projects, especially in **digital and virtual environments**.

They must be **anticipated, analyzed, and managed systematically** to ensure project success.



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What Is Risk?



According to PMI (2021), **risk = the effect of uncertainty on project objectives.**

Risks may be:

- **Threats** (negative events)
- **Opportunities** (positive potential)



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+/- **Effects** •  **Objectives** •  **Probability**

Types of Risk Analysis

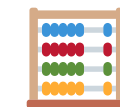
1) Qualitative Analysis



Matrix

- Uses probability/impact ratings (High–Medium–Low)
- Fast and subjective
- Tools: Risk Matrix, SWOT, Delphi

2) Quantitative Analysis



Calculations

- Uses numerical models
- EMV, Monte Carlo, Decision Tree
- Forecasts cost/schedule outcomes

12
34

Data model



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Qualitative Tools (Visual Examples)

- Risk Matrix (probability × impact)
- SWOT (Strengths, Weaknesses, Opportunities, Threats)
- Delphi (expert consensus)



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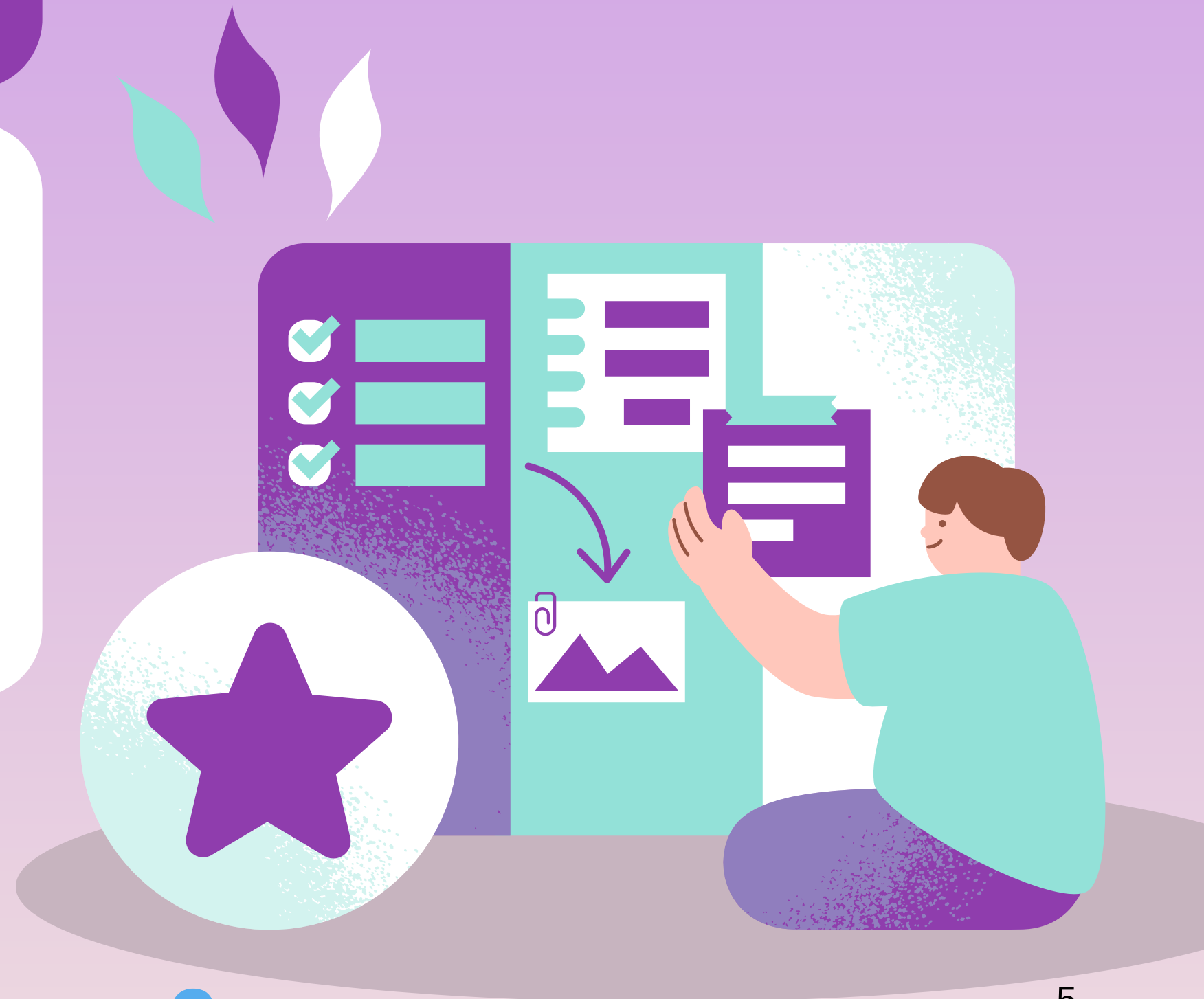
Grid •



SWOT Lens •



Expert group



Quantitative Tools (Visual Examples)

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- **EMV (Expected Monetary Value)**
- **Monte Carlo Simulation**
- **Decision Trees**



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EMV •



Simulation •



Decision path

Risks in Virtual Teams

- Special risks in digital environments:
- Platform reliability
- Cybersecurity threats
- Data sharing & confidentiality
- Miscommunication
- Time zone issues



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System failure •



Cybersecurity •



Time zones



Risk Response Strategies (PMBOK)



1. **Avoid** – remove the risk entirely
2. **Mitigate** – reduce probability/impact
3. **Transfer** – outsource the liability
4. **Accept** – acknowledge + prepare backup



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Avoid •



Mitigate •



Transfer •



Accept

Mitigation Planning



- Proactive prevention measures
- Example: Training team members on digital tools
- Clear protocols reduce errors
- Improve security & communication clarity



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Skills •



Training •



Protocols

Contingency Planning

“What if” scenario planning:

- **Backup communication platforms**
- **Secondary data storage**
- **Substitute leadership roles**
- **Clear decision rules**



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Backup •



Alternatives •



Emergency plan

The Risk Register

A living document that includes:

- **Identified risks**
- **Owners**
- **Response strategies**
- **Review dates**



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Register •



Ownership •



Review cycle

What Is Change Management?

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Change management = **Guiding individuals and teams from current → desired future state (Hiatt, 2006).**

It reduces resistance and enhances adoption of new processes.



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Transition •



Resistance •



Future state

Major Change Models



Lewin (Unfreeze → Change → Refreeze)

Simple method for initiating structured change.

Kotter's 8 Steps

Urgency → Vision → Wins → Anchoring

ADKAR Model

Awareness → Desire → Knowledge → Ability → Reinforcement



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Unfreeze •



Urgency •



ADKAR steps

Knowledge Transfer in Virtual Teams^{...}

Lewin (Unfreeze → Change → Refreeze)

Simple method for initiating structured change.

Kotter's 8 Steps

Urgency → Vision → Wins → Anchoring

ADKAR Model

Awareness → Desire → Knowledge → Ability → Reinforcement



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Unfreeze •



Urgency •



ADKAR steps

Barriers to Knowledge Transfer

- **Poor communication discipline**
- **Lack of shared understanding**
- **Weak documentation**
- **Low psychological safety**
- **Fragmented tools**



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Miscommunication



Missing files



Gaps

Building Team Resilience



Resilience = capacity to **withstand, adapt, and grow** amid uncertainty.

- Dimensions (Mallak, 2017):
- Preparedness
- Flexibility
- Learning orientation
- Supportive culture



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Resilience •



Flexibility •



Learning

Adaptability in Digital Teams



Enabled by:

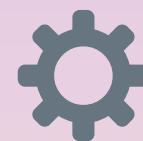
- Growth mindset (Dweck, 2016)
- Use of collaborative tools
- Rapid decision cycles
- Psychological safety



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Growth •



Agility •



Safe climate

Summary



- Risks must be analyzed qualitatively & quantitatively
- Effective responses: avoid, mitigate, transfer, accept
- Contingency planning = essential for continuity
- Change models guide team transition
- Knowledge transfer requires structure + trust
- Resilience turns disruption into innovation



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Insight •



Change •



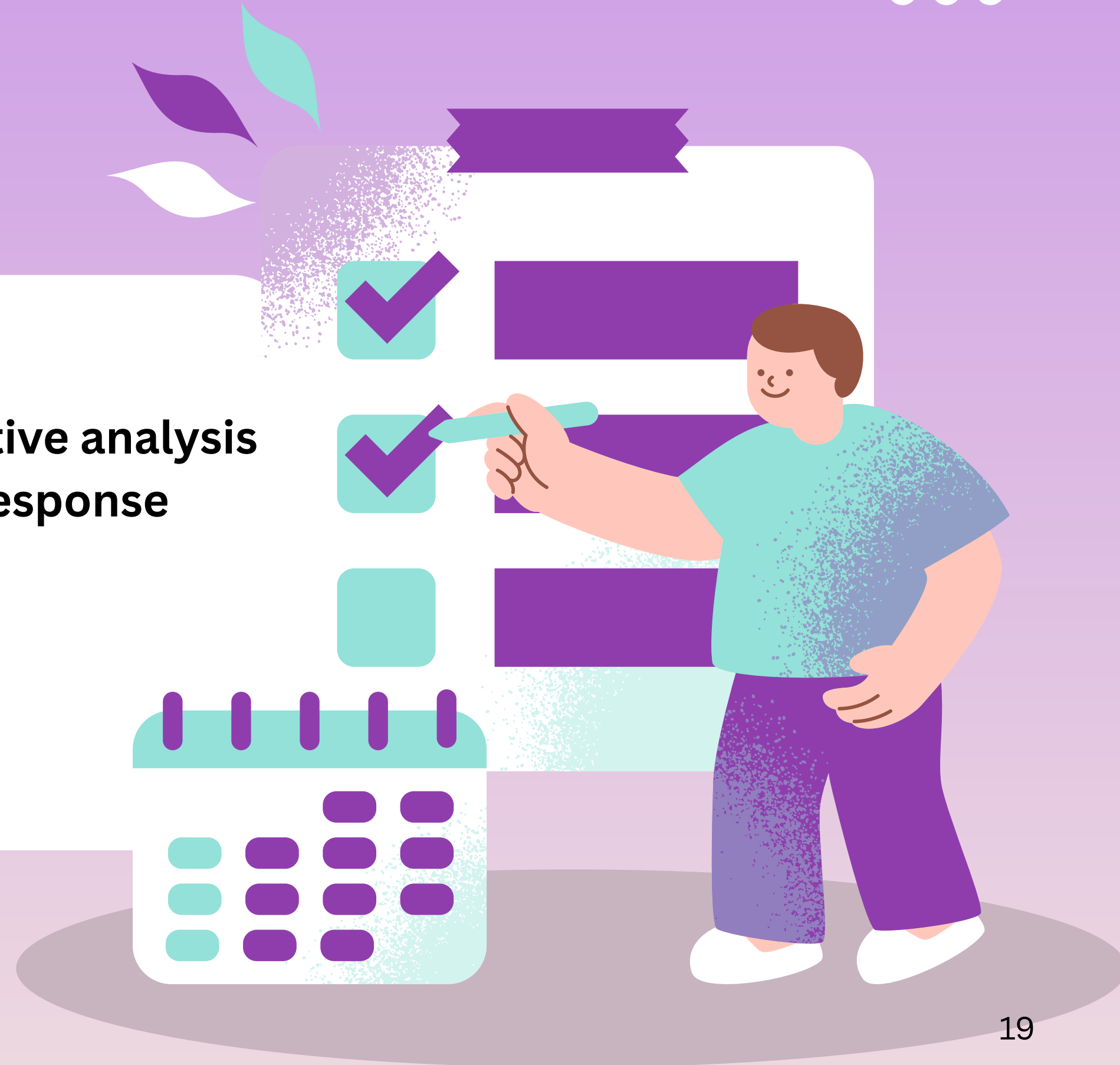
Success

Review Questions

- Differences between qualitative vs quantitative analysis
- How mitigation & contingency support risk response
- Which change model fits virtual teams best?
- Barriers to knowledge transfer?
- How to cultivate resilience?



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Thank You



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