APSC 101 Study Notes Intro to Engineering II

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1. Professional Skills

1.1. Tuckerman's Stage of Development

Tuckerman's Stages of Development: Forming, Storming, Norming, Performing

Tuckman's Stages of Team Development



1.1.1. Important Notes

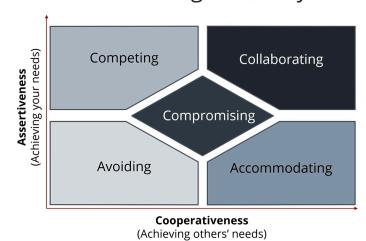
- relationships within members get BETTER over time
 - ▶ this includes storming, as team members are more willing to speak their minds
- conflict occurs at all stages

1.1.2. Good vs Bad Norming

- Good norming is healthy
- Bad norming -> team dysfunction
 - e.g. one team member routinely misses meetings and team does nothing

1.2. Conflict Management

Conflict Management Styles



Avoiding: Good when tensions high.

Accommodating: Good when the issue matters more to the other party.

Competing: Good when issue is self-critical and immediate.

Compromising: Good if time is short and relationships/problem must be balanced. **Collaborating**: When you have time to work towards finding the ideal solution for everyone.

Good teams change their style as situation demands.

2. Risk Management

 $Risk = Severity \times Likelihood$

 $Risk \neq Hazard$

Risk: *Possibility* of harm, consequences, or damage.

Hazard: Capacity of equipment, material, or processes to cause

harm.

2.1. Risk Sources

Preventable: Controllable.

General time management issues included, such as not anticipating delays.

Strategic: Taken for possibility of greater reward.

For example, rushing through decision making stages for earlier project completion, this is a strategic risk, not preventable.

External: Outside of control.

2.2. Risk Tools

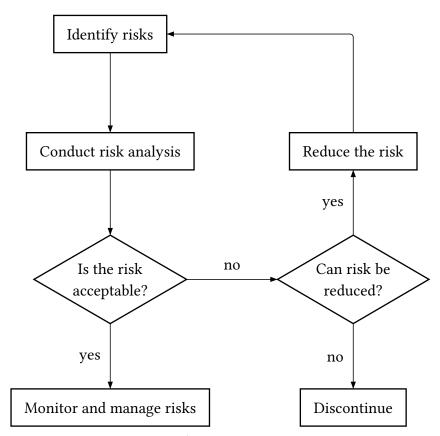


Figure 1: Risk Management Process

| | | RISK SOURCE | | | | |
|---------------|-----------------------|-------------|-----------|----------|--|--|
| | | Preventable | Strategic | External | | |
| 7 | Safety | | | N/A | | |
| gory | Technical | | | | | |
| Risk Category | Project Management | | | | | |
| R | Operational | | | | | |

Table 1: Risk Classification Table

A risk classification table is a tool used to identify and classify risks based on their severity and likelihood.

Figure 2: Risk Matrix

| | | Severity | | | | |
|------------|---|----------|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| | 5 | | | | | |
| po | 4 | | | | | |
| Likelihood | 3 | | | | | |
| Like | 2 | | | | | |
| | 1 | | | | | |

Table 2: Risk Register