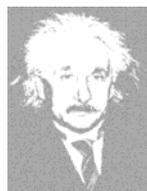


*The significant problems we face  
cannot be solved at the same  
level of thinking we were at when  
we created them."*

Albert Einstein



BP Shagula, CSP

Human Performance Coordinator

208-360-0314



# The Blame Cycle

Human  
Error

More flawed defenses  
& error precursors

Individual counseled  
and/or disciplined

*Blame  
Cycle*

Latent organizational  
weaknesses persist

Reduced trust

Management less  
aware of jobsite  
conditions

Less  
communication



# *Principles*

1. **People are fallible**, and even the best make mistakes.
2. Error-likely situations are **predictable, manageable, and preventable**.
3. Individual behavior is **influenced** by organizational processes and values.
4. People **achieve** high levels of performance based largely on the **encouragement and reinforcement** received from **leaders, peers, and subordinates**.
5. Events can be **avoided** by understanding the reasons mistakes occur and applying the lessons learned from past events.

- 
- ◆ What similarities can we draw between this video and our D&D environment?
  - ◆ What alligators do we have in D&D? (Let's make a list!).
  - ◆ Are you a Kenny?

# **Is 99.9% Good Enough?**

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**1 hour of unsafe drinking water per month**

**2 unsafe landings per day in Atlanta, GA.**

**50 dropped babies per day**

**116,000 lost pieces of mail per hour**

**20,000 incorrect drug prescriptions per year**

**22,000 checks deposited in wrong accounts per hour**

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Aoccdrnig to rscheearch at an Elingsh uinervtisy, it deosn't mttar in waht oredr the ltteers in a wrod are, the olny iprmoetnt tihng is taht the frist and lsat ltteer is at the rghit pclae. The rset can be a toatl mses and you can sitll raed it wouthit porbelm. Tihs is bcuseae we do not raed ervey lteter by it slef but the wrod as a wlohe.

# *Error – likely Situation*



Unintentional  
deviation from  
preferred behavior



Job Site Conditions

- Task
- Individual

Degree of mismatch due to  
***error precursors***

## Active vs Latent Errors

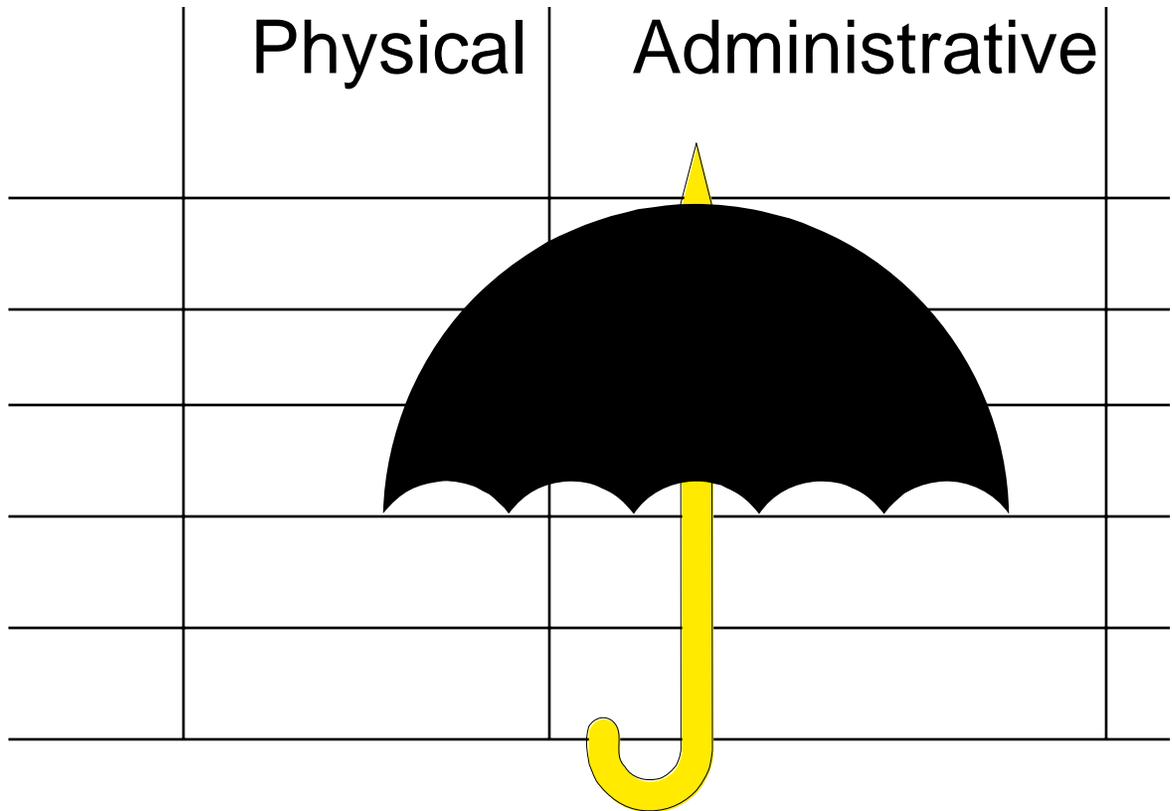
### ◆ ERRORS

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- Active (most visible, most recent)
- Latent (performed earlier, created flaw that surfaces later)
  - When analyzed it is clear that most unacceptable outcomes were preceded by numerous latent errors

◆ **Cumulatively latent errors create latent organizational weaknesses**

- ❖ Create Awareness
- ❖ Detect and Warn
- ❖ Protect
- ❖ Recover
- ❖ Contain
- ❖ Enable Escape



Flawed defenses allow active errors or their consequences to occur.

Source: Maurino (1995)

# Anatomy of an Event

Flawed  
Defenses

