

Workplace Health and Safety

It's all fun and games until...

Game Development Foundations

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Topics

- Safety Procedures and Instructions
- Responding to Emergency Incidents
- Identifying Hazards
- Assessing Risk and Implementing Controls
- Equipment Checks
- Responsibilities of:
 - Self
 - Staff
 - Fellow Students

Occupational Health and Safety

- Office environments contain many potential hazards
- Your health and safety is mandated by legislation
- This lecture aims to:
 - Raise awareness
 - Help you identify existing and potential problems
 - Encourage consultation
 - Offer solutions and advice
- This stuff is important. It affects you directly, don't dismiss it!

Responding to Emergency Incidents

- Know the location of the emergency exits
- Know the location fire extinguishers
- Know the emergency assembly point
- Know the location of reception

First Aid

- First Aid available for on-campus students
 - Staff trained in first aid
 - First aid kits



Identifying Hazards

- A hazard is a source (or potential source) of harm, injury, ill health or disease
- Anything which might cause injury or ill health to *anyone* at or near a workplace is a hazard

Identifying Hazards

- 5 main hazard categories:
 - Mechanical hazards
 - Physical hazards
 - Chemical hazards
 - Psychological hazards
 - Electrical hazards



Identifying Hazards

- Mechanical hazards
 - filing cabinets that tend to tip; tripping hazards
- Physical hazards
 - glare or reflections from screens; chairs with inadequate back support
- Chemical hazards
 - vapours in the atmosphere like paint, solvents; airborne particles like photocopier toner
- Psychological hazards
 - the need to perform excessive workloads under pressure; being bullied by a co-worker or supervisor; repetitive work; insufficient task variety
- Electrical hazards
 - damaged electrical cords or overloaded power points

Risk

- Risk means:
 - the likelihood of harm arising from exposure to any hazards and,
 - the consequences of that harm.
- Hazards and risks are not the same thing

Levels of Risk

- The *likelihood* of something going wrong is not always the same
- The *consequences* of something going wrong are not always the same



Assessing Risk

- We can use the Risk Matrix to calculate how much risk a hazard presents
- Assess risk according to likelihood and consequence
- All risk levels require action

| | Consequences | | |
|------------|--------------|----------|-------|
| Likelihood | Minor | Moderate | Major |
| Likely | | | |
| Possible | | | |
| Unlikely | | | |

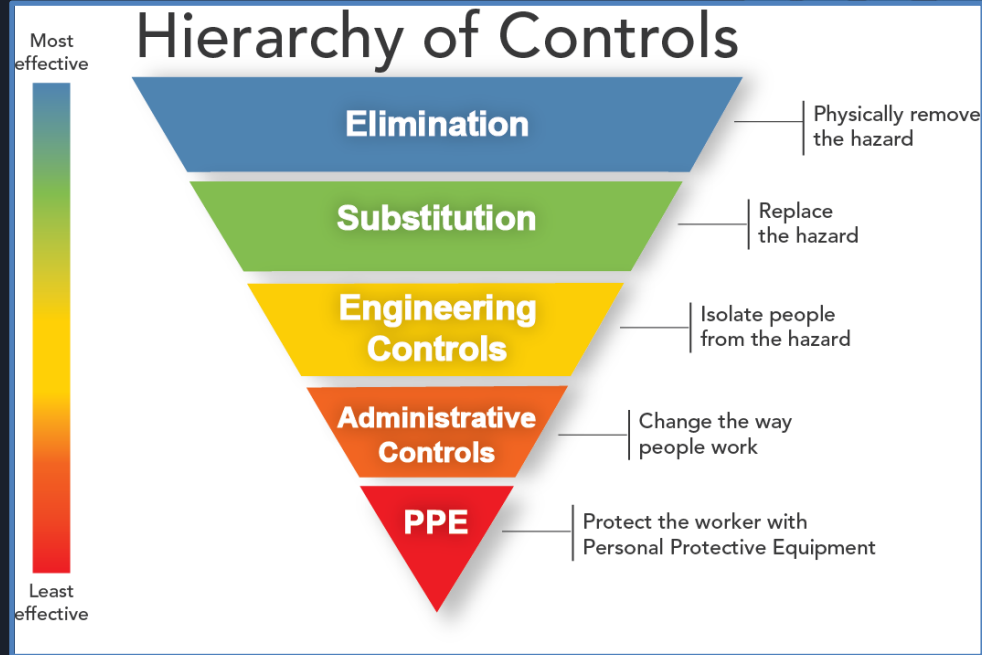
| |
|---|
| Intolerable Risk Level. Immediate action required |
| Tolerable Risk Level. Risks must be reduced so far as is practicable. |
| Broadly Acceptable Risk Level. Monitor and further reduce where practicable. |

What Does the Risk Level Mean?

| | |
|---------------------|--|
| Extreme / High Risk | Imminent / Serious danger. Immediate action is required – stop work. Identify and implement controls (temporary or permanent) to reduce risk to as low as reasonably practical |
| Medium Risk | Moderate danger. Action as soon as possible to implement controls (long & short term) to reduce the risk to as low as reasonably practical |
| Low Risk | Minor to negligible danger. Assess if further action can be taken. Take steps to monitor the controls so the hazard is maintained as “low” if the hazard cannot be eliminated completely |

Minimizing Risk

- Once we know the risk of each hazard we can implement processes or solutions to control the risk
- Aim to control hazards using the most effective methods first (if possible)



Controls - Example

- How could we reduce the risk of eye strain from looking at monitors?
 - We can't eliminate monitors, or substitute them with alternatives
 - Engineering controls (like automated blinds) might work
 - Administrative controls will be the most effective (ensuring regular breaks, setting up equipment properly, closing curtains to reduce glare)
 - Protective equipment could be given to workers ('gaming' glasses), but this may be impractical

Assessing Risk in the Office

- You may think that an office environment is not an inherently risky place
- Can you identify some hazards in your workplace? (the AIE classroom or your own study area)
 - What is the hazard?
 - What are the potential harm from this hazard?
 - What is the likelihood of these harm occurring?
 - So, what is the level of risk of this hazard?
- Let's look at some examples...

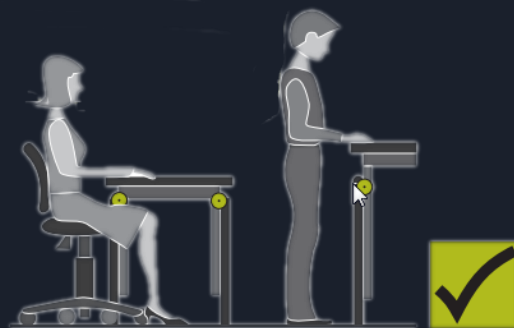
Manual Handling

- Any activity requiring lifting, pushing, pulling, moving or restraining something
- Risks:
 - Musculoskeletal disorders (body stressing)



Manual Handling

- How can we control the risk of harm?
 - Joints should be in relaxed and comfortable positions
 - Use your keyboard and mouse for short periods
 - Fixed postures should be held for short periods
 - Maintain good posture
 - Include a variety of tasks
 - Take regular breaks



Injuries caused by computer use

- Risk of eye strain from monitors
- How can we control the risk of harm?
 - Main source of light not shining in your face / screen
 - Tilt screen to avoid glare
 - Screen not too close to face, at eye level
 - Reduce contrast / brightness of screen
 - Frequently look away / focus on faraway objects
 - Have regular eye exams

Injuries caused by computer use

- Other injuries caused by computer use
 - Muscle and joint problems
 - Caused by incorrect posture / incorrect furniture
 - Obesity
 - Photosensitive epileptic seizures
 - Burns
 - From overheating laptops placed on lap
- What is the level of risk for these?
- How can this risk be controlled?



Psychosocial Factors

- What psychological hazards exist in the office?
 - Stress
 - Bullying
 - Occupational violence
 - Fatigue
- What is the level of risk for these hazards?
- How can this risk be controlled?

Equipment Checks

- Check your workstation to ensure risk is minimized
 - Chair height set so that thighs horizontal and feet rest on floor
 - Position chair/desk so work is at elbow height
 - Raise chair and use footrest if desk too high
 - Adjust backrest so convex curve fits lower back

Equipment Checks

- Check your workstation to ensure risk is minimized
 - Tilt keyboard to suit your comfort level
 - No documents between keyboard and front of desk
 - Top of screen level with eyes

Responsibilities

- Report hazards / unsafe situations / incidents
- Don't act in an unsafe way
- Maintain a safe work environment for everyone's benefit

Summary

- Office environments contain many potential hazards
- Anything that might cause harm to anyone at or near a workplace is a hazard
- Risk means the likelihood of harm from exposure to a hazard, and the consequences of that harm
- Hazards will have different levels of risk
- It is important to be able to identify hazards and assess their risk level
- Control measures should be put in place to reduce a hazard's level of risk

References

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