Lecture 20 – Final Lecture

Student Notes

Lecturer: George Steve Darmanin MSc. OHSEM CMIOSH

📢 **Important Reminder:**
All students **must carefully read and follow the full instructions** available at:
👉 **Health and Safety Essentials – October 2024 Resource Centre**

⚠️ **Failure to adhere to these guidelines may result in point deductions or non-compliance with assessment requirements. The below suggestions serve as guidance only and must be aligned with the official instructions.**

📌 **1. Assignment Guidelines**

Each student must submit a **1,700-word academic report** in response to **one of three assignment questions**.

✅ **Key Requirements:**

✓ **Word Count:** 1,700 words (±10%)
✓ **Referencing:** Minimum **15 sources** in **Harvard style**
✓ **Submission Deadline: 8th May 2024**
✓ **Assessment Level: EQF Level 5 (Critical Thinking & Research-Based Analysis)**
✓ **Formatting:** Follow **Resource Centre Guidelines**

According to Biggs and Tang (2011), effective higher education assessments must align with learning objectives and demonstrate the student's ability to critically engage with concepts and theories.

📌 **2. Assignment Structure Template**

📝 **Use the following structure to ensure a well-organised and logical report.**

🔷 **Title Page**

✓ Assignment Title
✓ Student Name & ID
✓ Course Name & Instructor
✓ Date of Submission

🔷 **1. Introduction (200-300 words)**

✅ Provide **background information** on your chosen topic.
✅ Clearly state the **aim of the report** (What are you analysing/discussing?).
✅ Define key concepts (**OHS risk management, leadership, automation, etc.**).
✅ Outline **how the report is structured**.

📌 **Example Opening Sentence:**
"This report analyses the impact of automation on workplace safety, focusing on risk assessment failures in the South Korean industrial robot fatality."

Reason et al. (1997) state that human error remains a key contributor to workplace accidents, necessitating robust safety management systems.

🔷 **2. Case Study Analysis (500-600 words)**

✅ **Describe the case study** (What happened? Where? What are the key details?).
✅ Identify **main OHS failures** (lack of risk assessment, leadership gaps, poor training).
✅ Use **real data or statistics** where possible to support your claims.

📌 **Example Key Finding:**
"The South Korean robot fatality occurred due to a lack of emergency stop mechanisms, inadequate hazard controls, and failure to train workers on automation safety. According to ILO (2023), 70% of automation-related workplace accidents result from human-machine interaction failures."

The International Labour Organization (ILO, 2023) reports that automation-related injuries have risen globally due to insufficient regulatory adaptation.

◆ **3. Literature Review & Theoretical Framework (500-600 words)**

✅ Explain **OHS theories, models, and best practices** relevant to your topic.

✅ Reference **key legislation, standards, and frameworks** (e.g., ISO 45001, Cap. 646, CSRD).

✅ Compare **different perspectives** (academic sources, industry reports).

✅ Link theory to your **case study findings**.

📌 **Example Academic Concept:**

"Hofstede's cultural dimensions theory suggests that high power distance workplaces discourage employees from raising safety concerns. This was evident in the Foundation Food Group case, where workers feared speaking out about safety hazards (Hofstede, 2021)."

Leadership plays a crucial role in establishing a proactive safety culture (Geller, 2001).

◆ **4. Solutions & Recommendations (300-400 words)**

✅ Propose **evidence-based solutions** grounded in OHS best practices.

✅ Recommend **realistic implementation strategies**.

✅ Address potential **challenges or limitations**.

📌 **Example Solution:**

"To prevent similar incidents, companies should implement ISO 45001-certified safety management systems, conduct emergency response training, and integrate AI-based monitoring for automation safety (Smith et al., 2023)."

ISO 45001 provides a structured framework for risk mitigation in high-hazard industries (ISO, 2018).

◆ **5. Conclusion (150-200 words)**

✅ Summarise **key findings** of the report.

✅ Restate the **importance of addressing OHS gaps**.

✅ Provide a **final thought on the future of workplace safety**.

📌 **Example Final Statement:**

"This report highlights how poor risk assessment and leadership failures contributed to fatal workplace accidents. Implementing structured OHS policies, training, and automated safety monitoring can significantly reduce such risks."

Continuous improvement in OHS requires an integration of technological innovation and human-centred risk management (Dekker, 2017).

◆ **6. References (Harvard Style)**

✅ Minimum **15 sources** (books, journal articles, government reports, standards).

✅ **List in alphabetical order** by author's last name.

✅ **Correct format** (example below):

📌 **Example Harvard Reference:**

📊 **Example Reference (Harvard Style):**

Example In-Text Citation (Harvard Style):

- (U.S. Chemical Safety and Hazard Investigation Board, 2023)

Full Reference for the Bibliography (Harvard Style):

- U.S. Chemical Safety and Hazard Investigation Board (2023) *Fatal Liquid Nitrogen Release at Foundation Food Group, Gainesville, GA | Incident Date: January 28, 2021 | No. 2021-03-I-GA: Investigation Report*. Washington, DC: U.S. Chemical Safety and Hazard Investigation Board. Available at: www.csb.gov (Accessed: [insert date of access]).

📌 **3. Presentation Template (10-Minute Assignment Presentation)**

📊 **Time Limit: 10 Minutes**
📌 **Slide Limit: 8-10 slides (Keep text minimal!)**

🔷 **Slide 1 – Title Slide (30 sec)**

✔️ **Assignment Title**
✔️ **Student Name**
✔️ **Date**

🔷 **Slide 2 – Introduction (1 min)**

✅ **Which assignment question did you choose?**
✅ **Why did you choose this topic?**
✅ **What do you aim to explore or analyse?**

📣 *Example:*
"I have chosen Assignment 1: Industrial Automation & Workplace Safety. I am interested in how increased automation affects workplace risk and safety culture."

🔷 **Slide 3-4 – Case Study Breakdown (2-3 min)**

✅ **Briefly describe the case study or workplace issue.**
✅ **Highlight key safety failures or challenges.**
✅ **Provide relevant statistics and visuals.**

📊 *Example:*

- 📉 **Graph of automation-related workplace injuries (ILO, 2023).**

- 🏭 **Image of an industrial robot in a factory setting.**

🔷 **Slide 5-6 – Theoretical & Regulatory Framework (2-3 min)**

✅ **What OHS theories, models, or frameworks are applicable?**
✅ **How do Maltese and EU laws (e.g., Cap. 646, CSRD, ISO 45001) relate?**
✅ **What risk assessment strategies should be in place?**

📢 *Example:*
"According to Hofstede's cultural dimensions theory, high power distance workplaces discourage employees from raising safety concerns. This can increase accident risks in automation-heavy industries."

◆ **Slide 7-8 – Proposed Solutions (2 min)**

✅ **What academic & practical solutions are relevant?**
✅ **How can OHS professionals prevent similar issues?**
✅ **Discuss engineering, administrative, and behavioural controls.**

📢 *Example:*
✓ **Implementing ISO 10218-1 (Robot Safety Standard).**
✓ **Using real-time AI monitoring to prevent hazards.**
✓ **Strengthening worker training and hazard reporting culture.**

◆ **Slide 9 – Challenges & Further Research (1 min)**

✅ **What are potential limitations to your approach?**
✅ **What aspects require further research or analysis?**

📢 *Example:*
"A key limitation is the lack of long-term studies on AI-based hazard detection in the workplace."

◆ **Slide 10 – Conclusion & Q&A (1 min)**

✅ **Summarise your main points.**
✅ **Invite questions and feedback.**

REMINDER!!!

✅ **Ensure you follow the official presentation instructions** in the Resource Centre.
✅ **Prepare slides in advance and practise within the 10-minute time limit.**
✅ **Use the rubric to self-assess before presenting.**

According to Mayer (2009), well-structured presentations with clear visuals enhance audience engagement and retention.

References:

- Biggs, J. & Tang, C. (2011). *Teaching for Quality Learning at University: What the Student Does*. McGraw-Hill Education.

- Dekker, S. (2017). *The Safety Anarchist: Relying on Human Expertise and Innovation, Reducing Bureaucracy and Compliance*. CRC Press.

- Geller, E.S. (2001). *Working Safe: How to Help People Actively Care for Health and Safety*. CRC Press.

- Hofstede, G. (2021). *Culture's Consequences: International Differences in Work-Related Values*. Sage Publications.

- International Labour Organization (ILO). (2023). *World Employment and Social Outlook 2023*. Geneva: ILO.

- ISO (2018). *ISO 45001: Occupational Health and Safety Management Systems - Requirements with Guidance for Use*. International Organization for Standardization.

- Mayer, R.E. (2009). *Multimedia Learning*. Cambridge University Press.

- Reason, J. (1997). *Managing the Risks of Organizational Accidents*. Routledge.

- Smith, T. et al. (2023). *AI and Workplace Safety: Future Challenges and Solutions*. Springer.

📢 **Students must ensure they fully comply with all official assignment and presentation guidelines. The above serves only as a suggested framework.**

End