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Behavior Based Safety BPS 2323

Introduction to Behavior Based Safety

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Introduction to BBS by Sukadarin E.H.

ACKNOWLEDGEMENT

I sincerely thankful to Miss Junaidah Zakaria, who also taught this topic in the Occupational Safety and Health Program, Universiti Malaysia Pahang. Without her assistance, this work might not be possible.

The Prophet Muhammad (s) said: *“There is reward for kindness to every living thing.”*
.Bukhari and Muslim.



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Chapter Description

At the end of this chapter, student should be able to explain the overview principle of Behavior Based Safety

Expected Outcomes

Students able to explain:

- What is Behavior Based Safety (BBS)
- Why BBS is important

References:

1. Andrasik, F. et al (1981). "Behavior Modification & Work Related Problems". Academic Press.
2. Geller, E. Scott (2001). "Working Safe, 2nd ed". Lewis Publishers.
3. Geller, E. Scoot (2005). Behavior-Based Safety and Occupational Risk Management. *Behavior Modification*. 29(3):539-561.
4. Heinrich H W (1941) Industrial Accident Prevention. Mc Graw – Hill Book Company, New York – London
5. Jasiulewics – Kaczmarek, M., Szwedzka, K. and Szczuka, M. (2015). Behavior based intervention for occupational safety – case study. *Procedia Manufacturing* 3: 4876 - 4883
6. Penkey S P and Siddiqui N A (2015). A Review on Accident Pyramid and its Empirical Interpretation in Oil and Gas Industry (Upstream). *Int. Journal of Scientific and Research Publication*, 5(1). ISSN 2250-3153



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Content

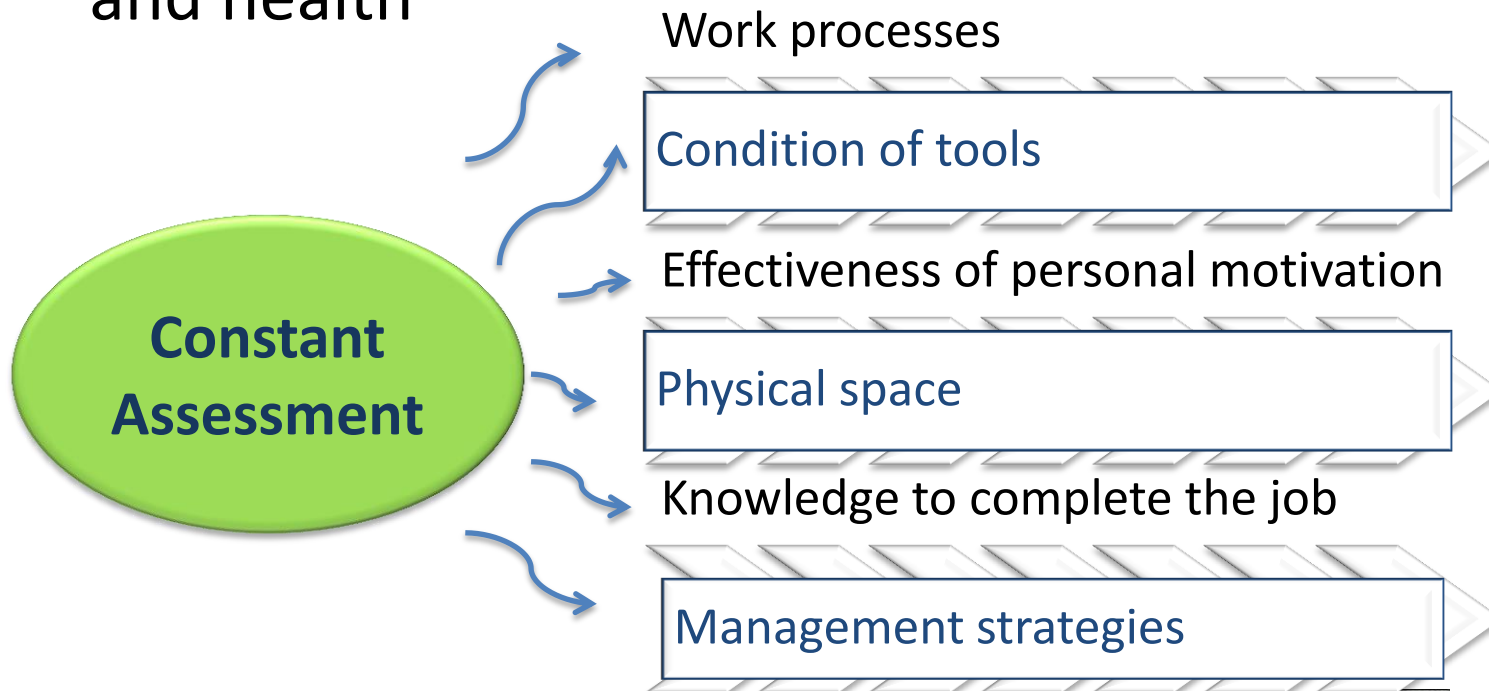
- ❑ Introduction of Behavior Based Safety
- ❑ Historical Perspective
- ❑ Heinrich's Domino Theory
- ❑ Accident Prevention
- ❑ Conclusion



Introduction

Behavior based safety (BBS)

-application of **behavior science** to occupational safety and health



Behavior Based Safety (BBS)

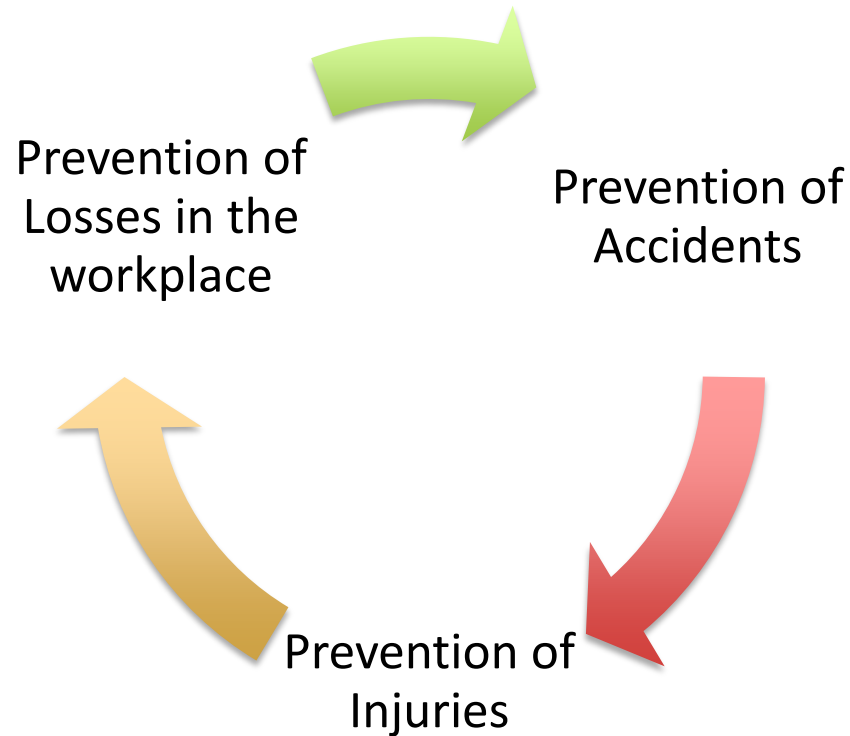
Tool for collecting data on management practices based on safety.

A **scientific way to understand** why people behave the way they do (in relation to safety)

Step towards **safety culture**



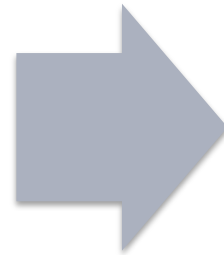
Behavioral Based Safety



Historical Perspective: Herbert William Heinrich (1886 – 1962)

1930s

American
Industrial Safety
Superintendent



1931

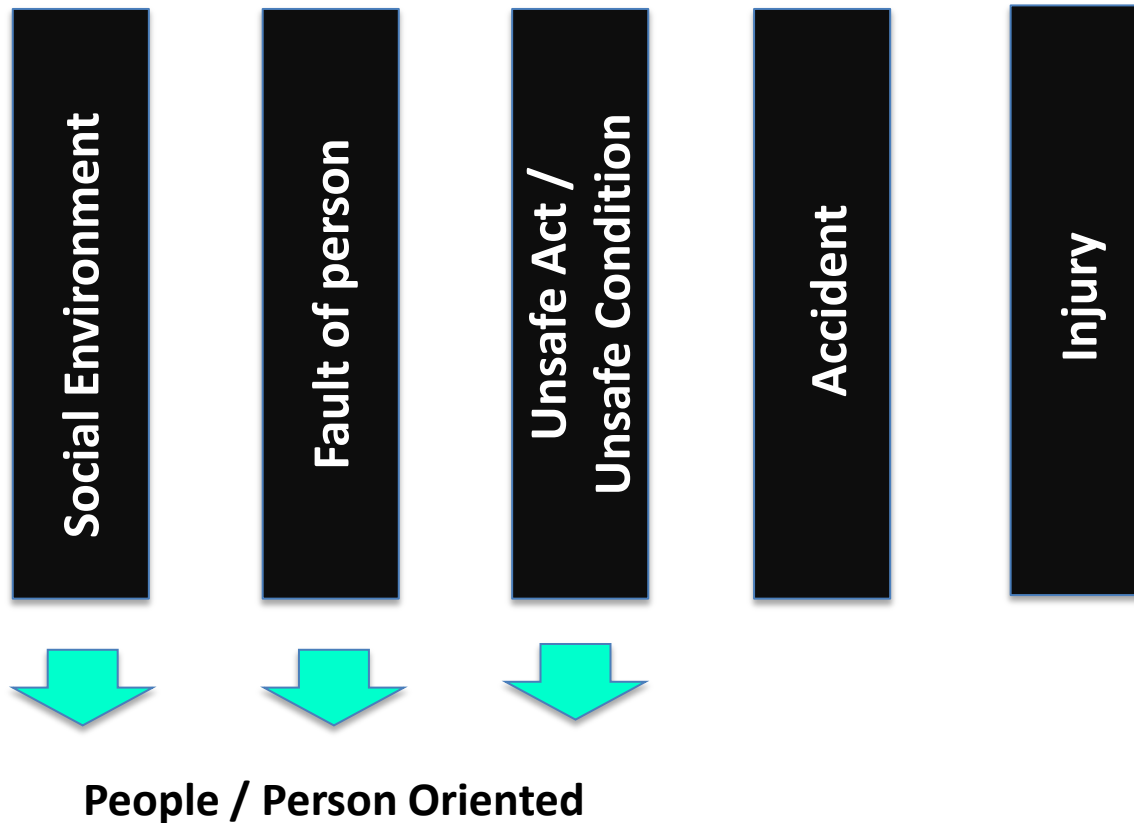
Published
Industrial
Accidents
Prevention book.



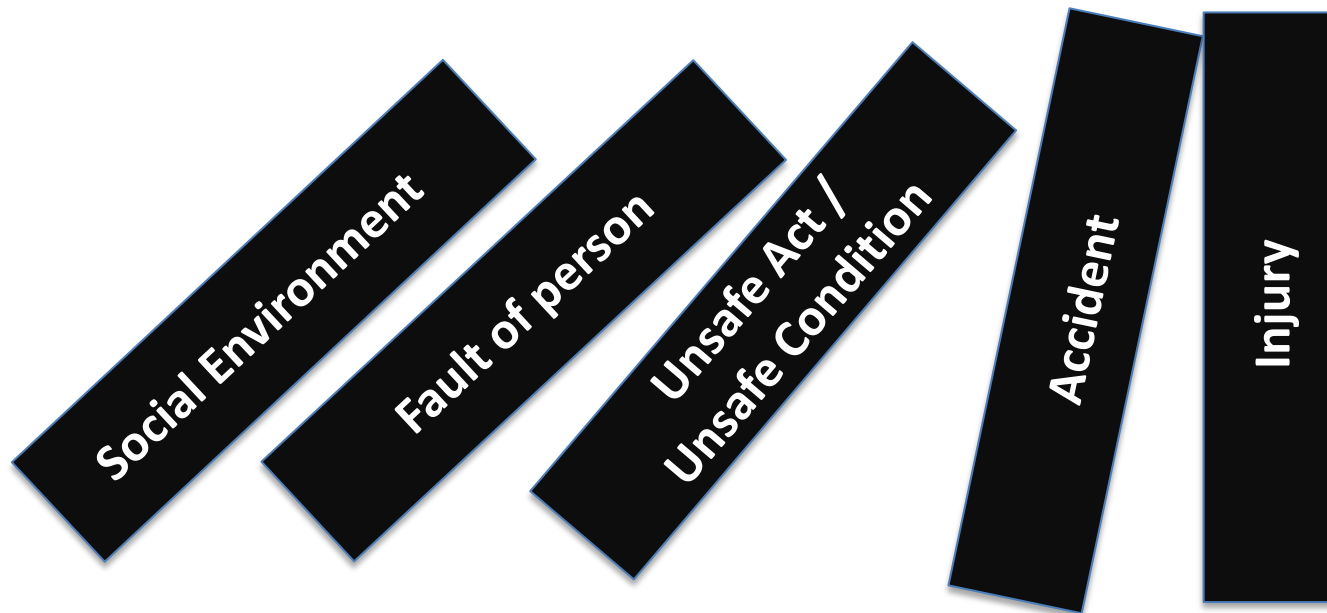
Industrial Accident Prevention by Heinrich

- ❑ Every accident that causes a **major injury**,
29 accidents that cause **minor injuries** and
300 accidents that cause **no injuries**.
- ❑ 95% percent of all workplace accidents are
caused by **human (unsafe act)**.

Heinrich's Domino Theory



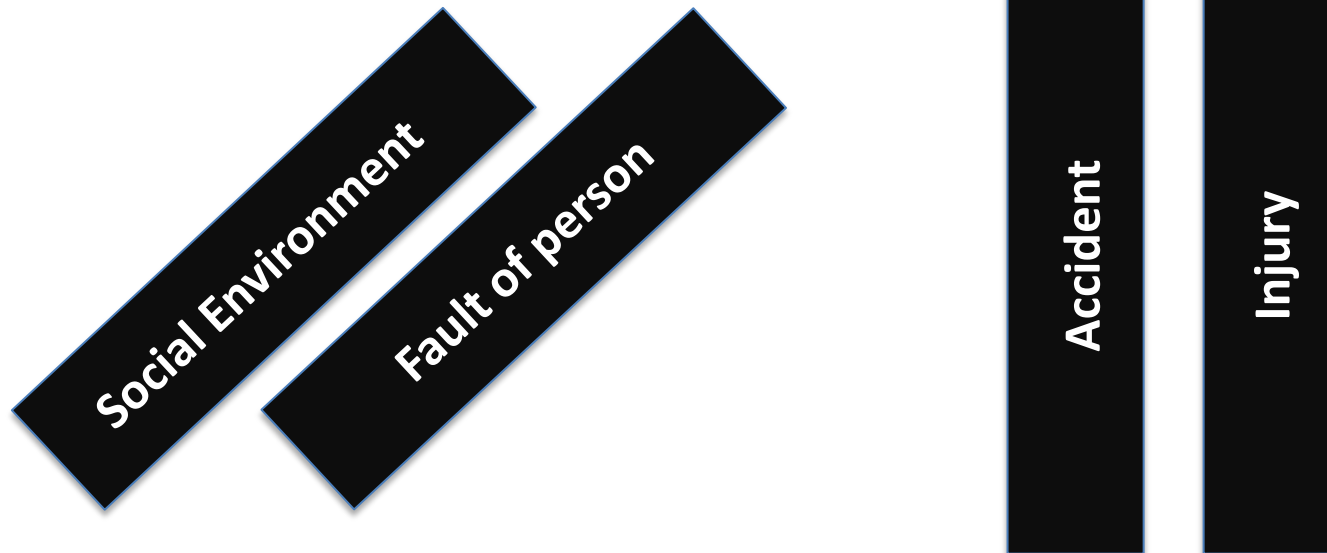
Heinrich's Domino Theory



Accidents result from a chain of sequential events



Heinrich's Domino Theory



If, the unsafe act or unsafe condition **is removed**, accident and injury also can **be prevented**.

BBS approach

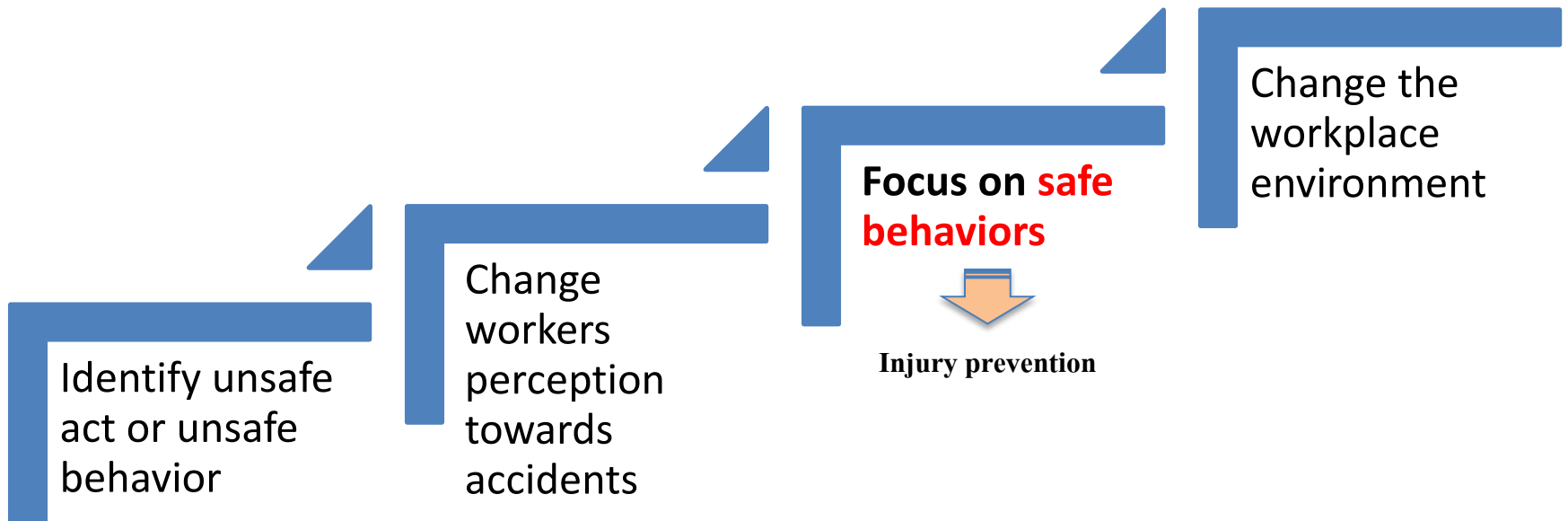
**Responsible for self /
Taking care of personal safety**



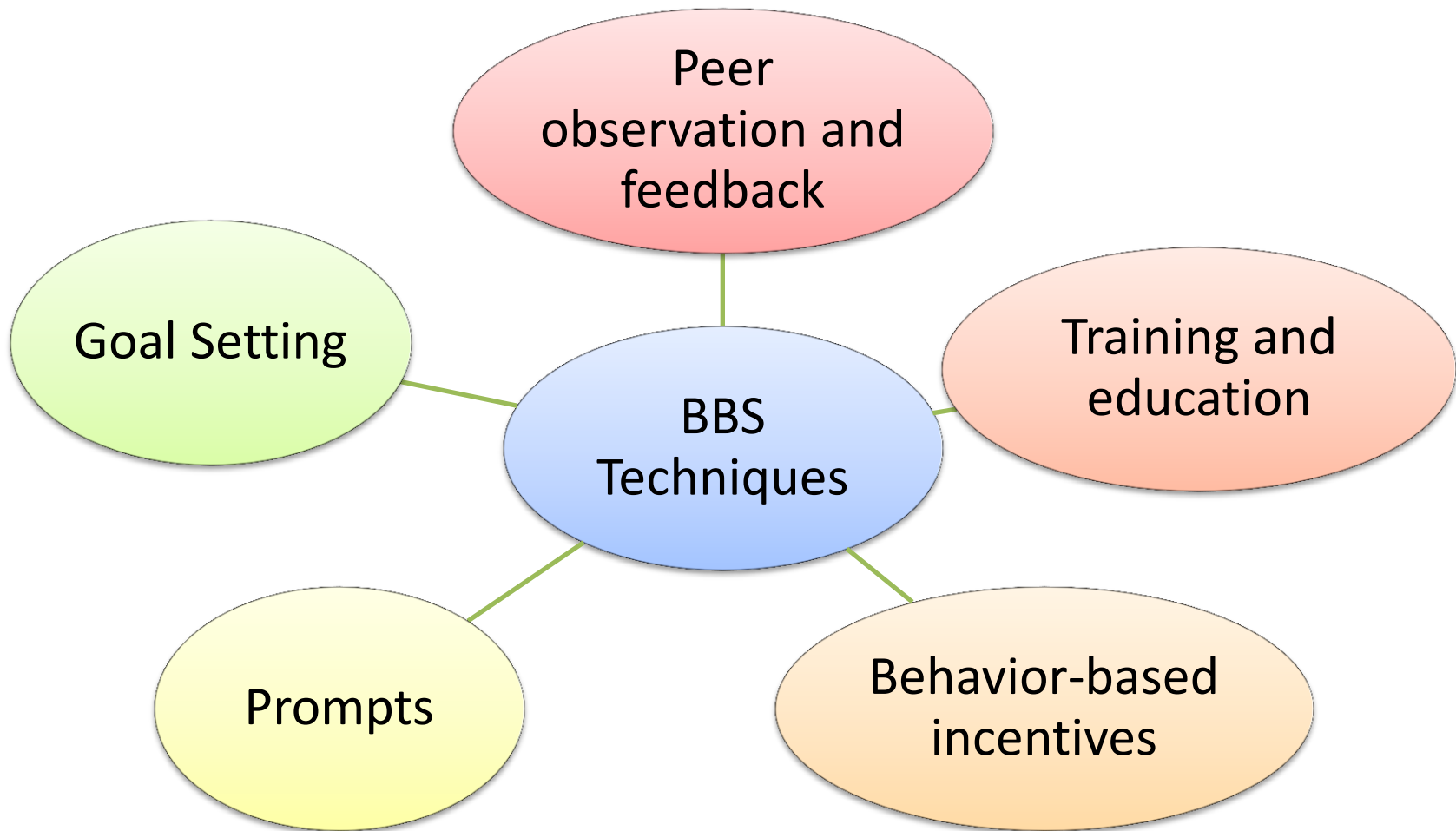
**Responsible for others /
Taking care of others too**



How to Prevent Accident?



Primary Techniques in BBS



Indicator of BBS

❑ Measurement of percent **safe acts**

❑ Safe behaviors  safety incidents 

Conclusion

- ❑ BBS is a proactive approach to safe workplace
- ❑ **At risk behaviors** should be **managed** because it will lead to injury
- ❑ **Safe behaviors** need to be **celebrated** because it can contribute to injury prevention



Thank You