

pengembangan

imaismara@uny.ac.id

081226022226

Budaya K3L berbasis HOTS

How ?

what

Solution

Why?

where

when

who



BackGround, Maslow, X-Y & TPB theory



Budaya K3L itu terkait dg aspek psy



budaya kerja selamat
harus **pasti pas**





Puzzle **budaya kerja selamat** yang terserak



values

habit

ecp

Soft skill

TPM

K3L

5S/5R

hazard

Risk

perilaku

HOTS

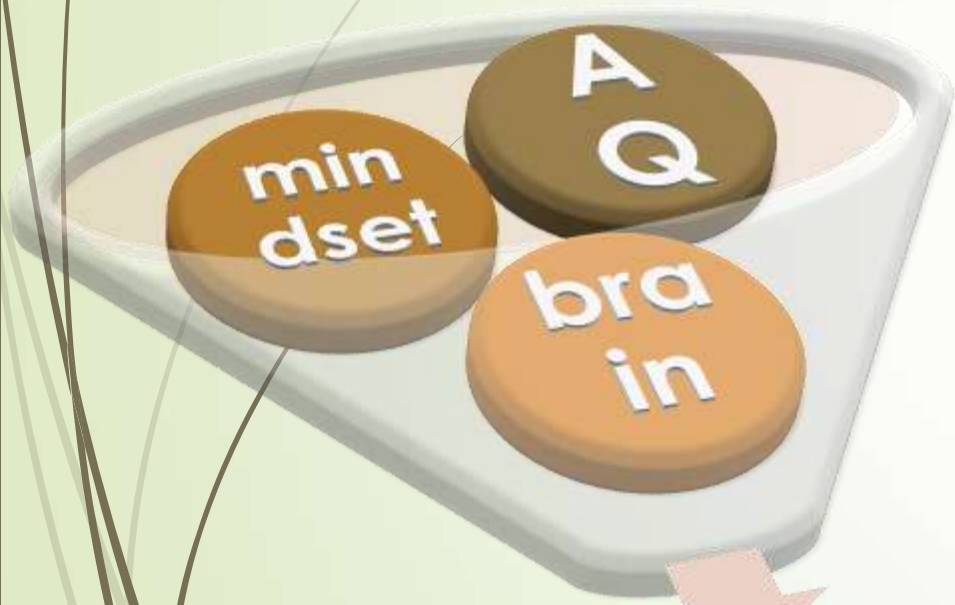
○ **BERPIKIR KRITIS**

○ **BERPIKIR KREATIF**

○ **PEMECAHAN MASALAH**
(\$olutif, kompetitif)

○ **PRODUKTIF**...bertindak
proaktif, komunikatif, kolaboratif

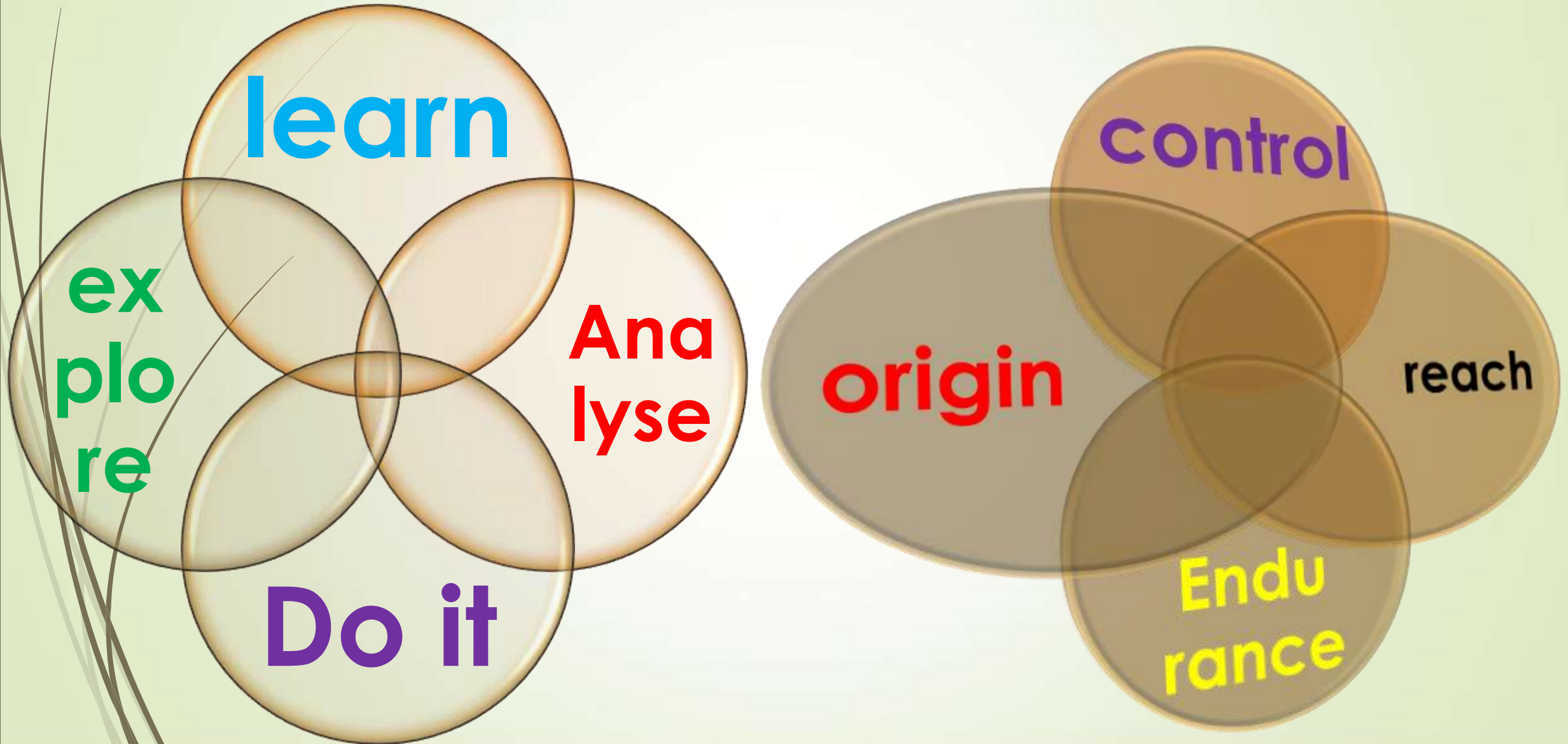
Nature & Nurture



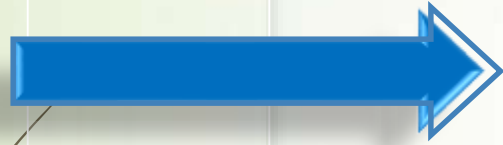
safety hots

SMK3
Tekanan kerja
pemimpin
Hazard
performansi
Norma grup
/risiko
Kemampuan diri
Norma subyektif
intensi
sikap Persepsi
Perawat=
iceberg
Iklim K3:
Aspek eksternal & internal

Kecerdasan Adversitas AQ



Perubahan Pola-Pikir

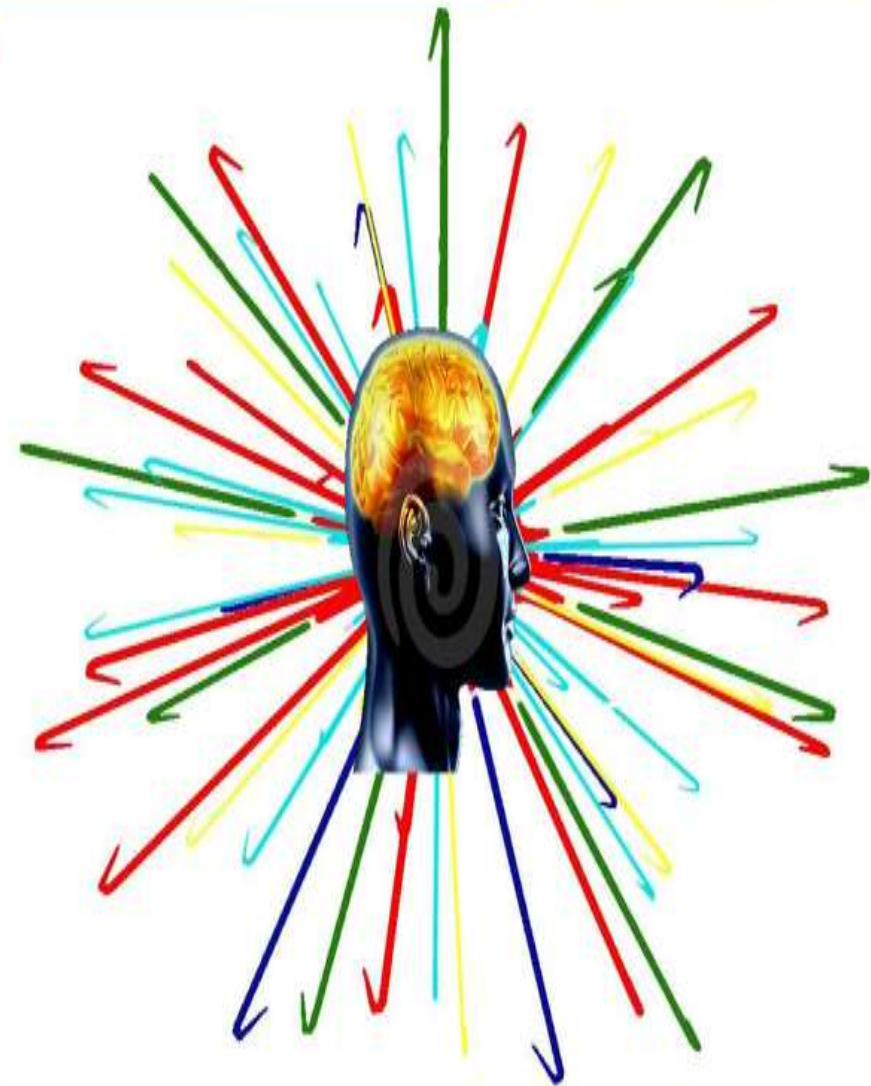


Linier
hapalan



Lateral,
alternatif
penerapan

Radiant Thinking



My Brain

Prof. Roger Sperry (Nobel)

LEFT

Dominance

abcq

WORDS

1,2,3,9

NUMBERS

LINES

LISTS

$\therefore X =$ LOGIC

ANALYSIS

RIGHT

Dominance

RHYTHM

COLOUR

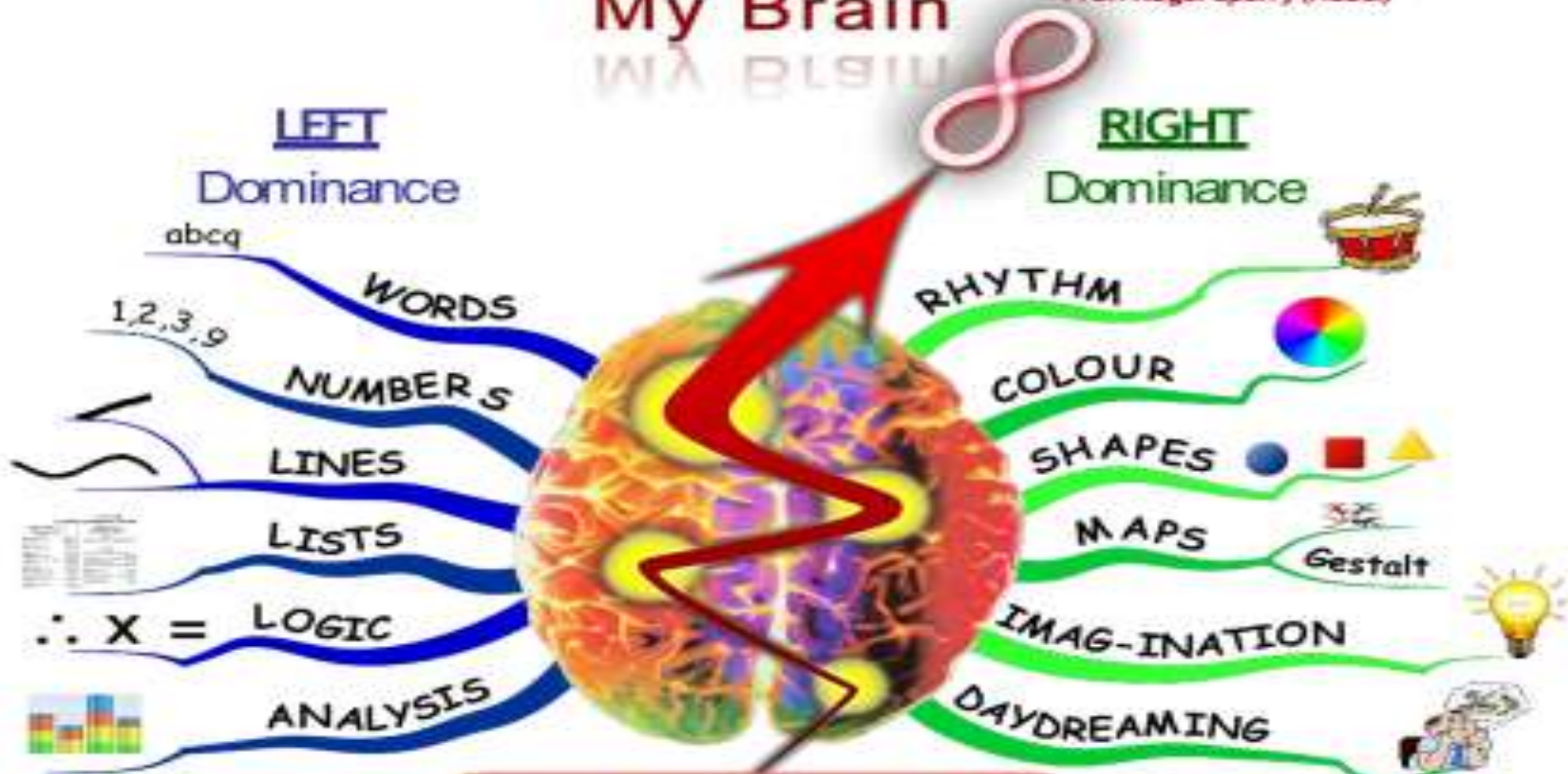
SHAPES

MAPS

IMAGINATION

DAYDREAMING

SYNERGETIC



Change Your Words,

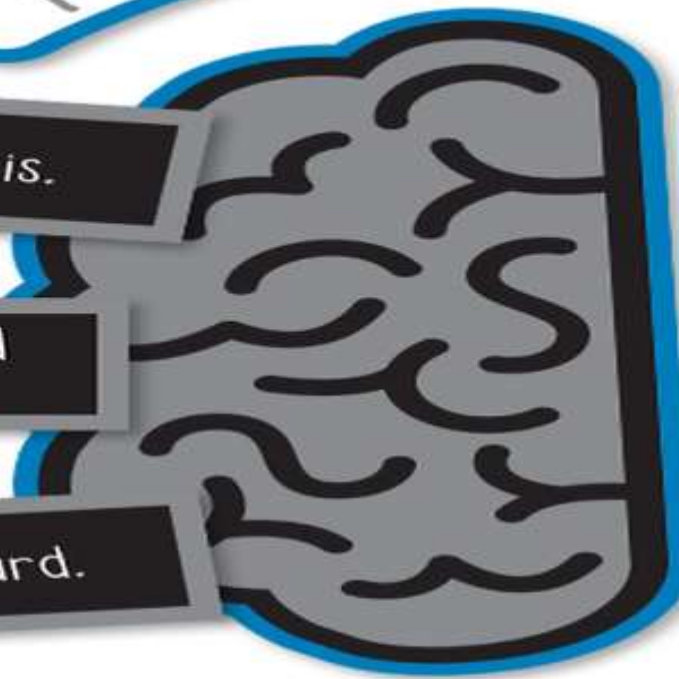
Fixed

Growth

I can't do this.

This work is good enough.

This is too hard.



I can try a different strategy.

Is this really my best work?

This may take some time and effort.

Change Your Mindset

MINDSETS

FIXED MINDSET

The belief that skills, intellect, and talents are set and unchangeable.



GROWTH MINDSET

The belief that skills, intellect, and talents can be developed through practice and perseverance.



I'll stick to what I know. Either I'm good at it or not.

It's fine the way it is. There is nothing to change.

This is a waste of time; there's a lot to figure out.

It's easier to give up. I'm really not smart.

This work is boring. No one likes to do it.

It's easy for him or her. They were born smart.

DESIRES

SKILLS

EFFORT

SETBACKS

FEEDBACK

TALENTED PEERS

I want to learn new things. I am eager to take risks.

Is this really my best work? What else can I improve?

I know this will help me even though it is difficult.

I'll use another strategy; my mistakes help me learn.

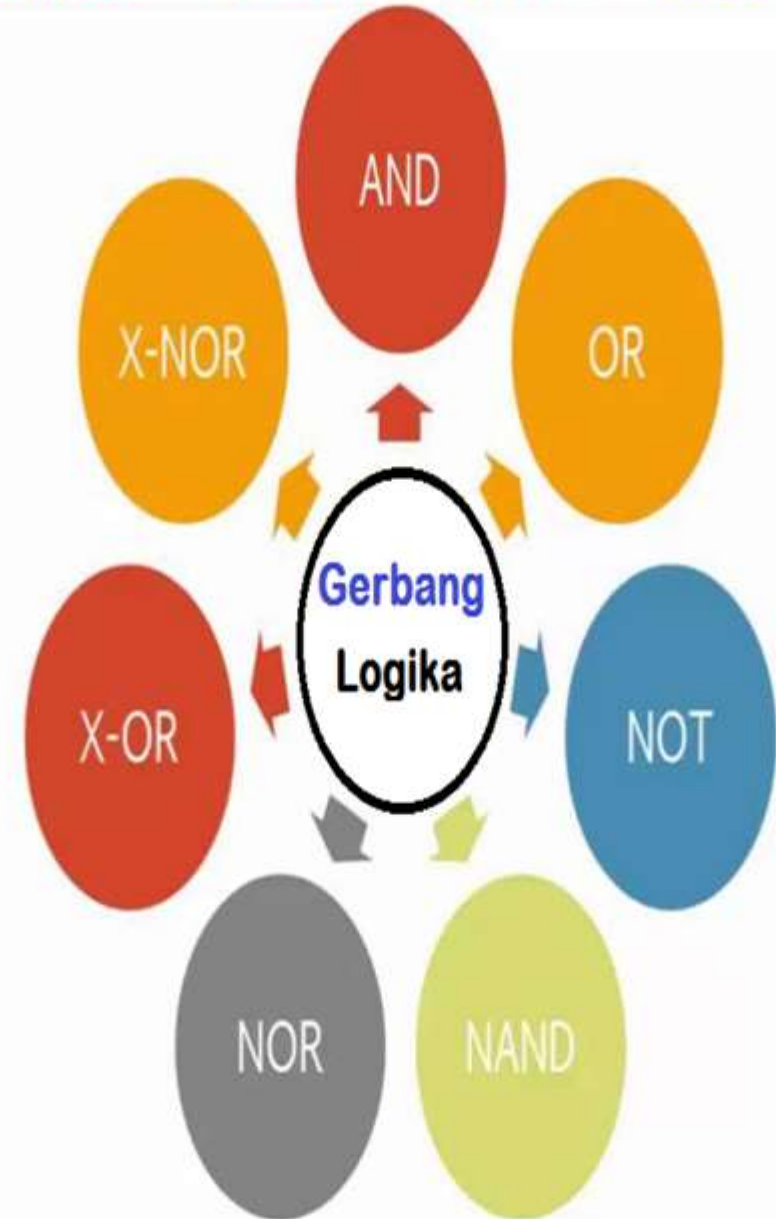
I recognize my weakness, and I know what to fix.

I wonder how they did it. Let me try to figure it out.

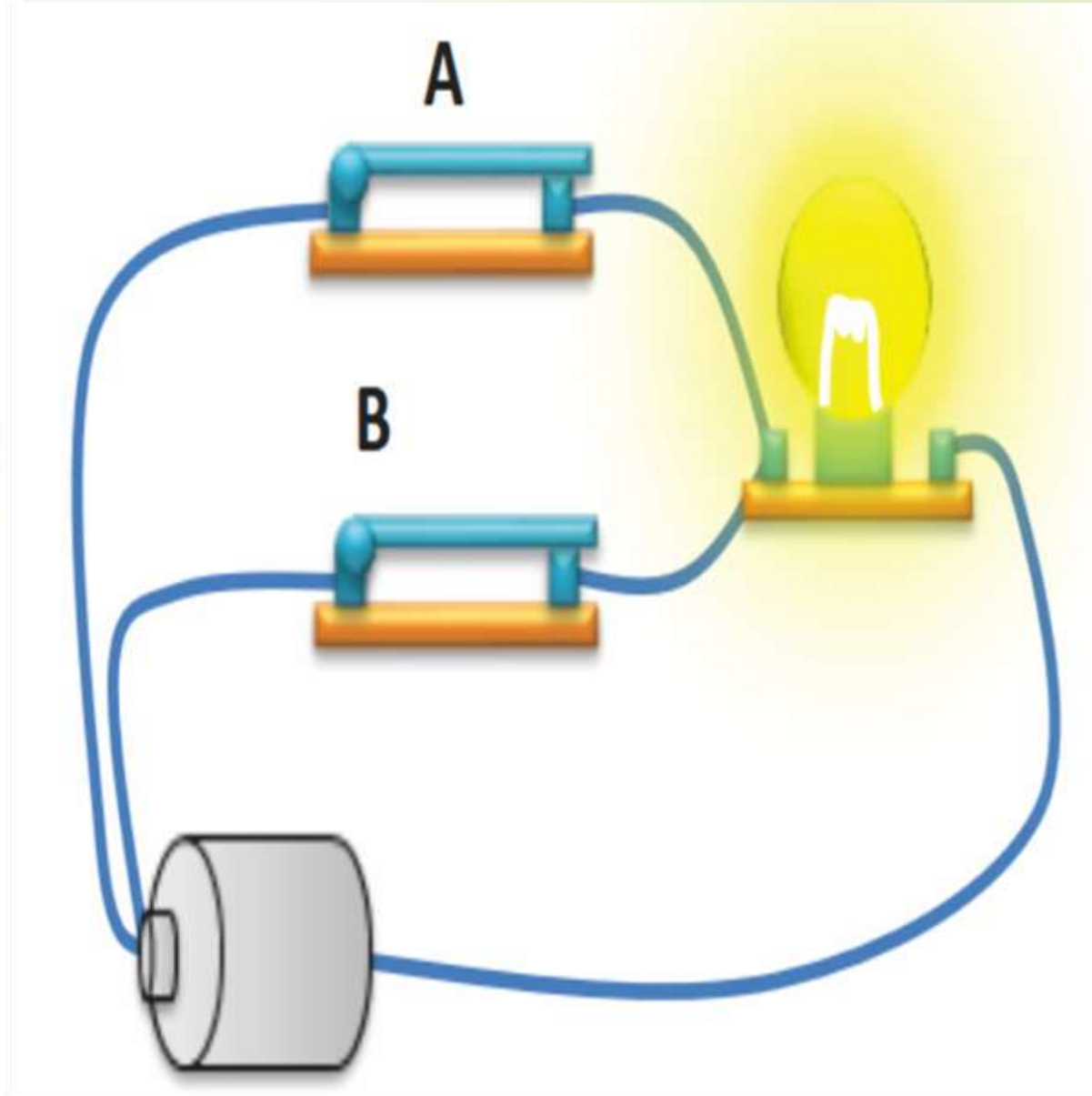
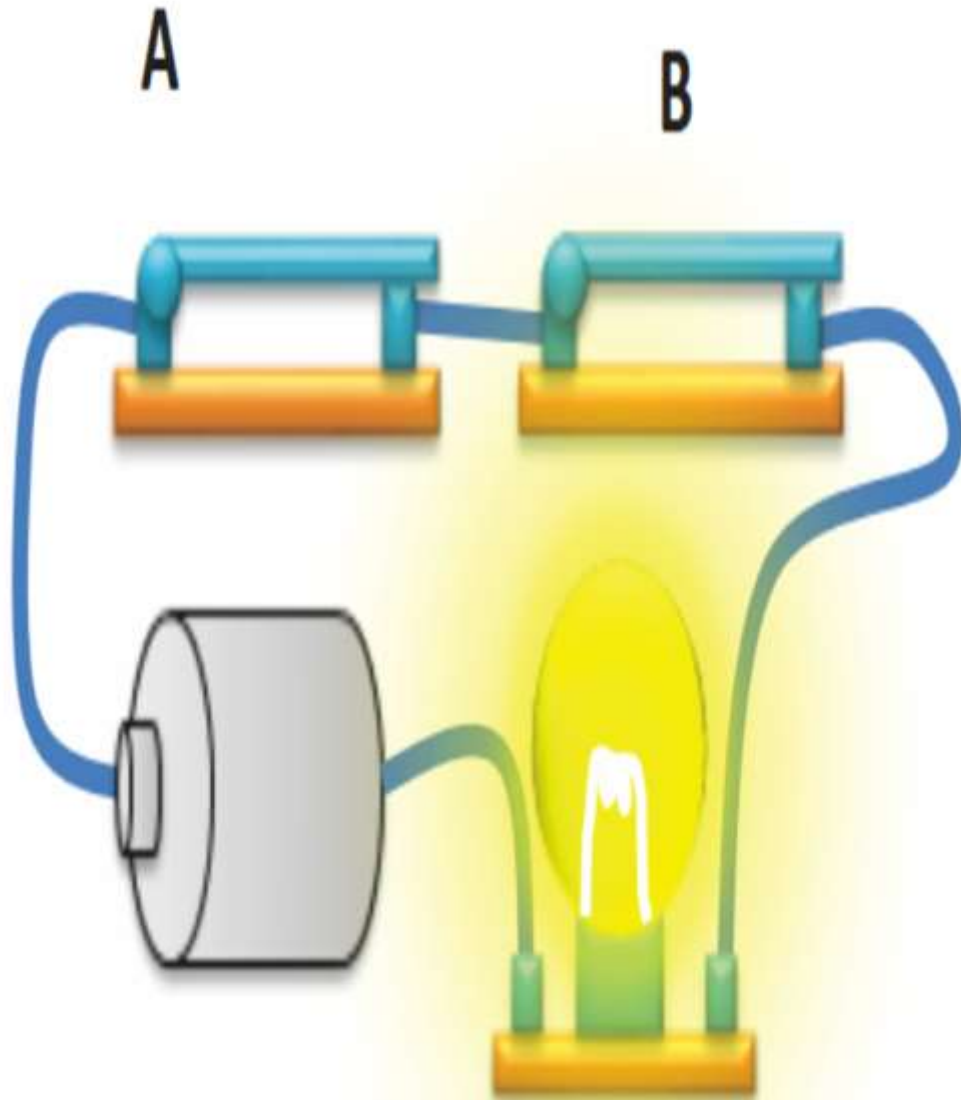
Logika dasar



Sistem Digital - Rangkaian Logika - Gerbang Logika



GERBANG LOGIKA AND OR



pokayoke

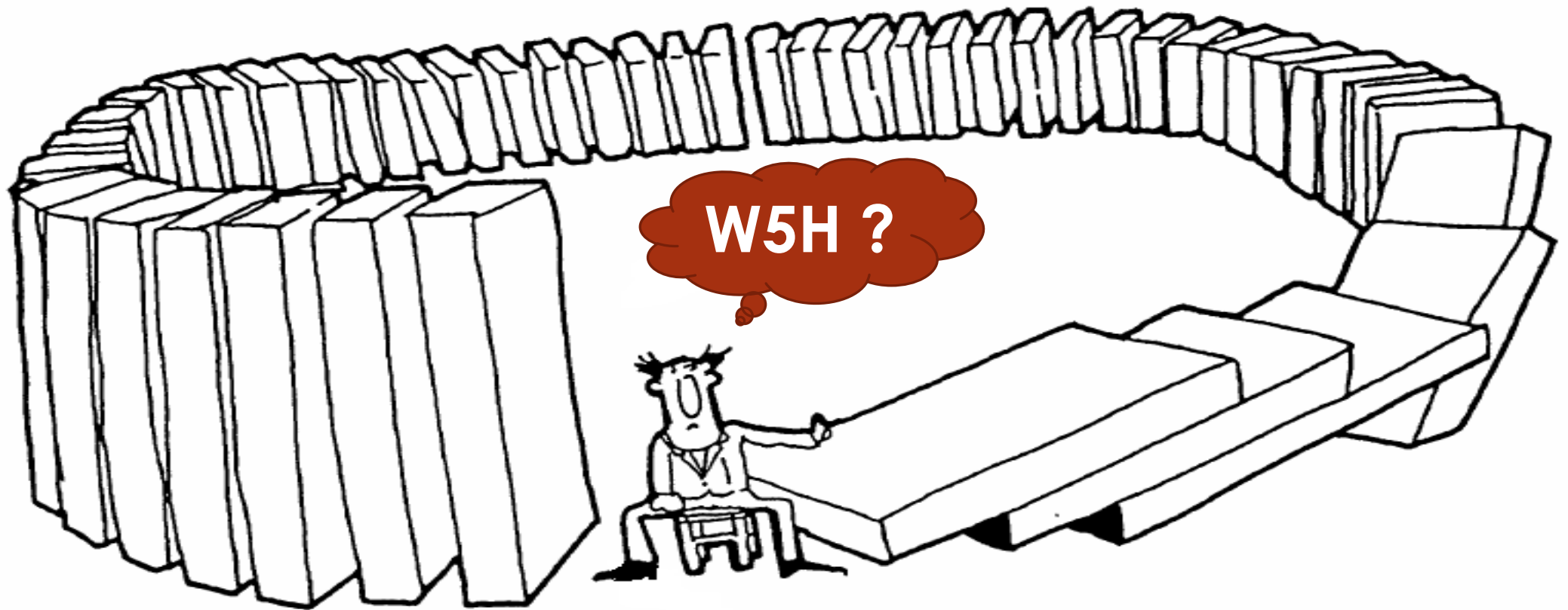
analogi

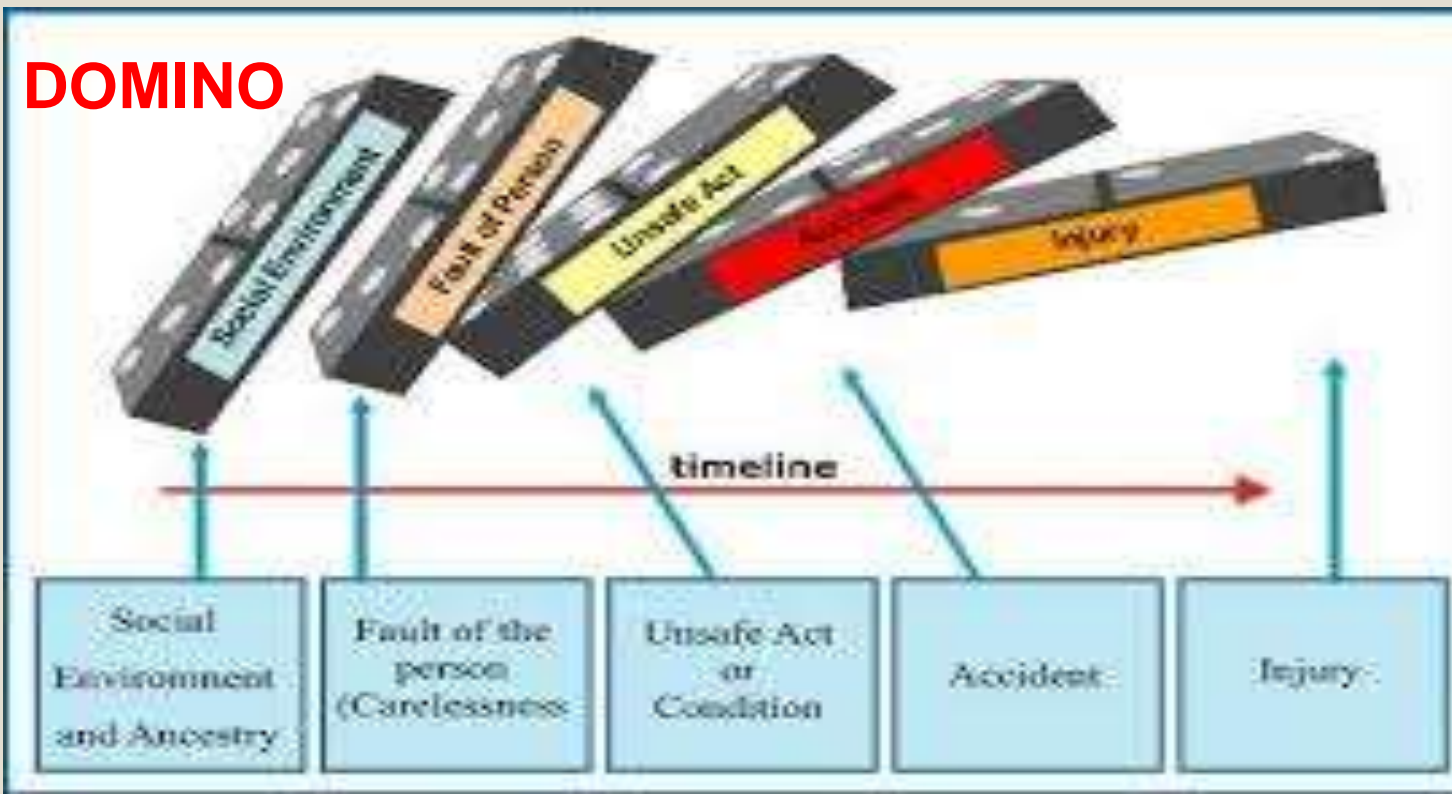


SWOT, W5H



Sebab akibat





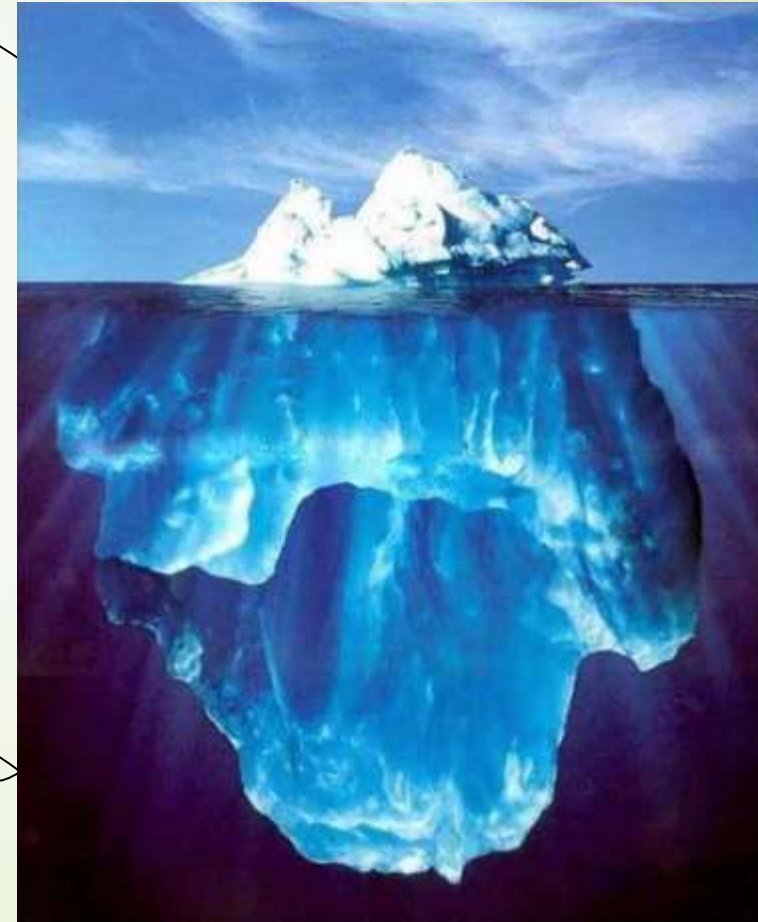
Kerusakan Mesin itu Tumbuh, akan menimbulkan pemborosan & kecelakaan (iceberg)

Kerusakan nyata

Kerusakan berat

Kerusakan sedang

Kerusakan kecil



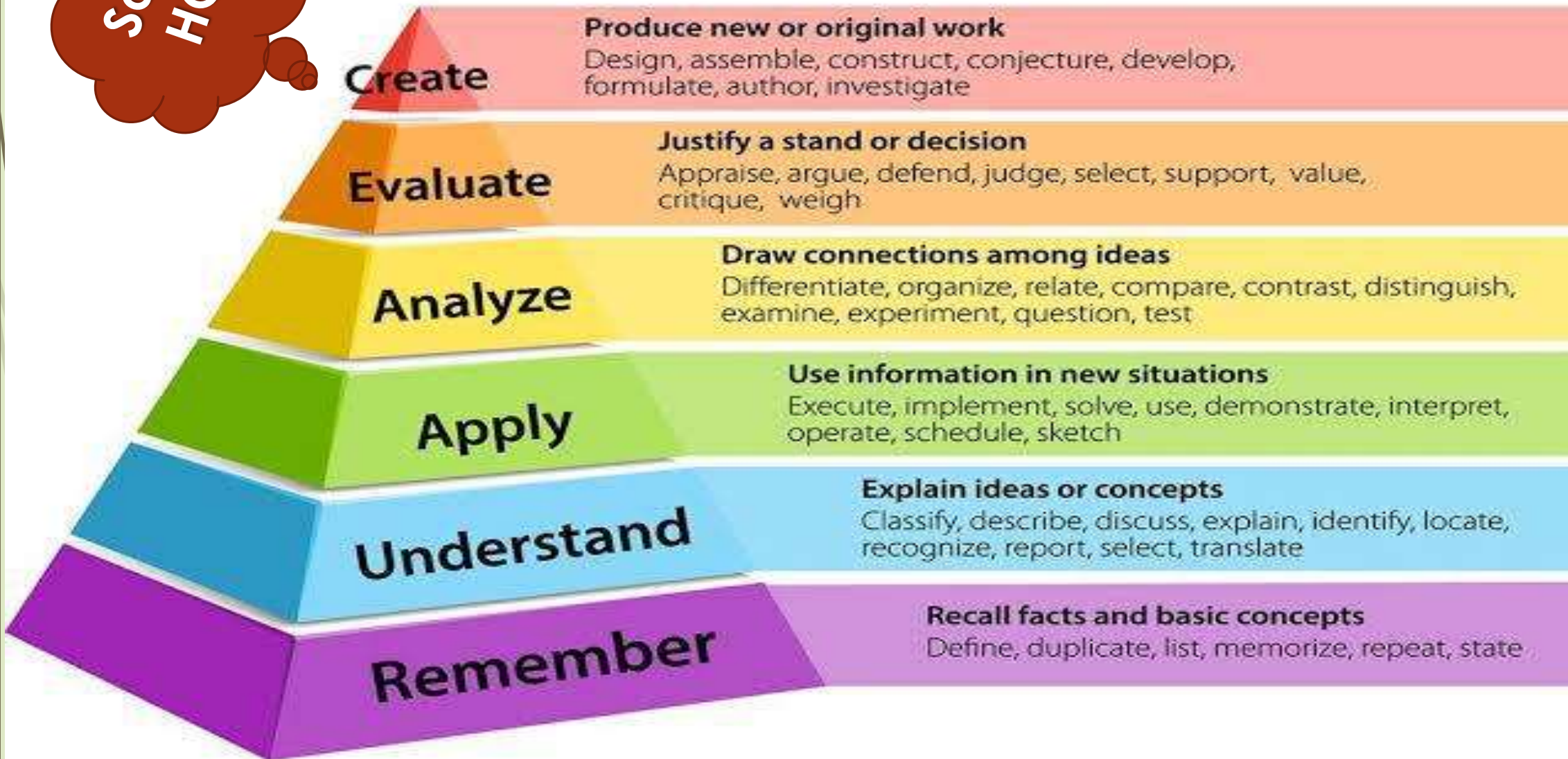
Kerusakan terselubung

dicegah dg
5S/5R, ECP,
TPM

Kerusakan mesin akan senantiasa tumbuh
(kecil ----- sedang ----- berat)

Bloom's Taxonomy

Safety
HOTS



Mencari solusi K3L

Creative Thinking Process



Creative Innovative



SCUMPS



- **S**ize
- **C**olor
- **U**se
- **M**aterial
- **P**arts
- **S**hape

Safety promotion

hazard of....



environment

- Tanah, udara, air
- Limbah, polutan
- Tumbuhan, binatang
- **(unsafe environment)**

workplace

- Machines, materials
- Man, media
- Layout **(unsafe condition)**

activities

- Method, minute
- Memory,
- **Unsafe behavior (BbS)**

RISK (KAK & PAK)



HARUS



Risk analysis, opportunity

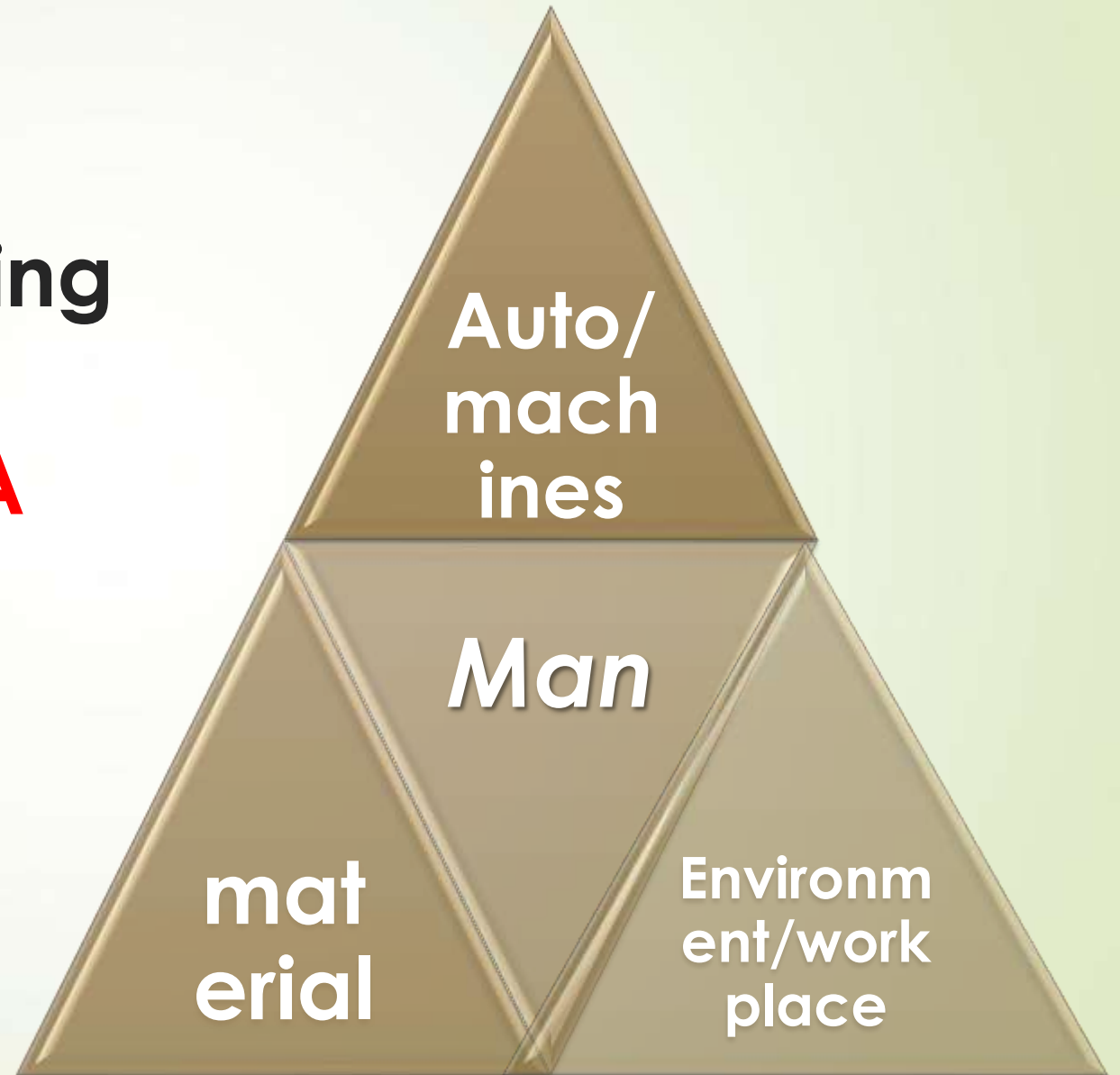


Solusi = mencegah lebih HOTS drpd mengatasi

Safety Strategic planning (SsP)

solution alternative (SA dg 5S/5R, TPM, ECP)

Sasaran solusi mencegah (SMART)



BEST

BEST

**Safety
eng**

ELIMINATION
Design it out



SUBSTITUTION
Use something else

ENGINEERING CONTROLS
Isolation and guarding

ADMINISTRATIVE CONTROLS
Training and work scheduling

PERSONAL PROTECTIVE EQUIPMENT
Last resort

**Control
effectiveness**

**Business
value**

Budaya Solusi K3L

Solusi (perilaku pencegahan lebih penting)

➔ APD or PPE bukan satunya SOLUSI

➔ K3L bukan = hanya APD

➔ lots



9 steps
cycle



9 Tahapan penerapan ZEROSICKS

- ➔ 1. evaluasi **hazard**
- ➔ 2. observasi **risiko**
- ➔ 3. deskripsikan alternative **solusi**
- ➔ 4. putuskan strategi **implementasi (AQ:core)**
- ➔ 5. kondisikan **iklim** organisasi

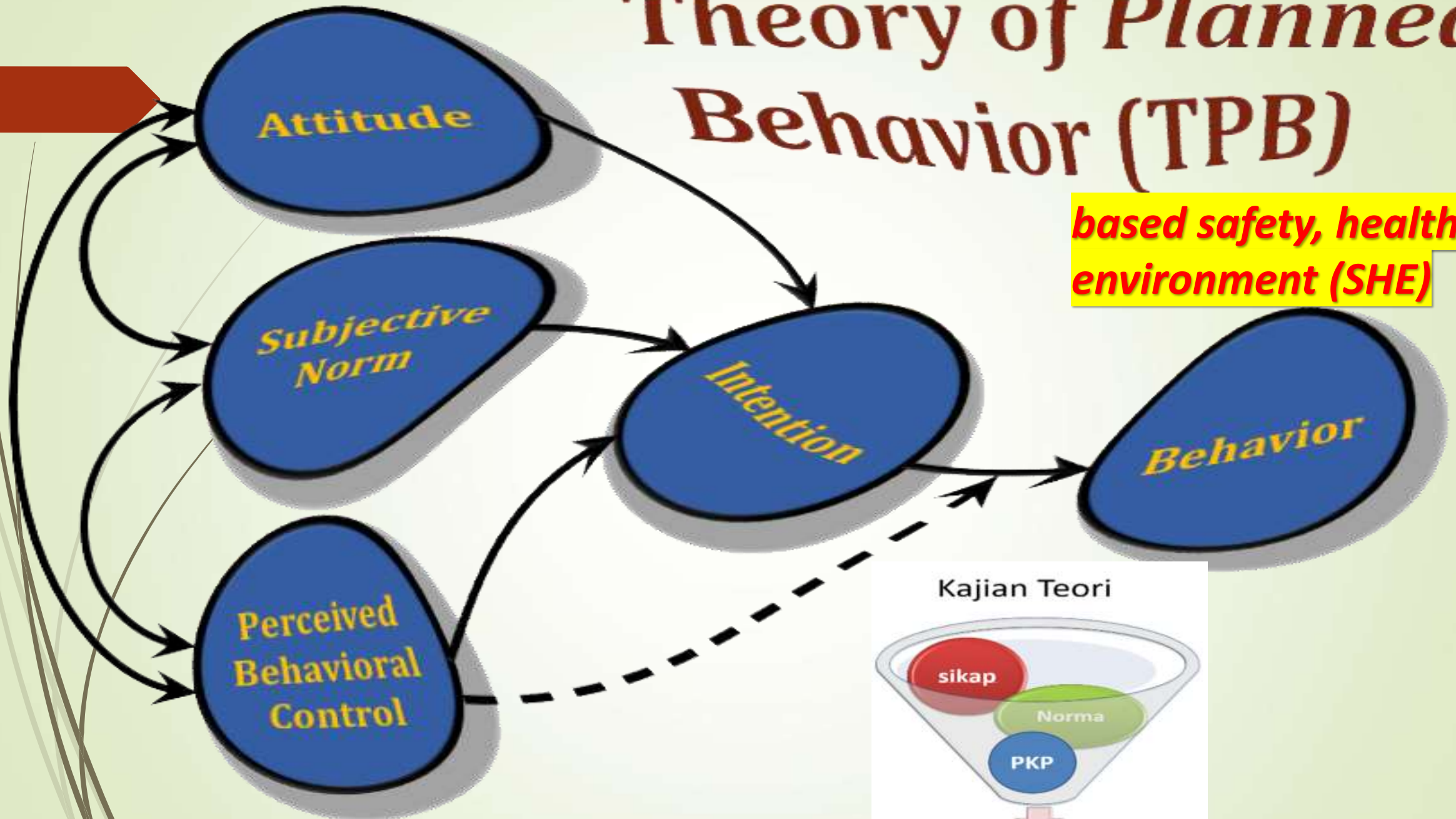
- ➔ 6. kembangkan **budaya** kerja selamat
- ➔ 7. **Kontrol** tiap langkah & tiap aspek
- ➔ 8. susun menjadi naskah pengetahuan & **informasi**
- ➔ 9. tetapkan menjadi **SOP** standard operasi kerja berdasarkan legal aspek (nasional dan Internasional)

Climate & culture (communal: peran organisasi & kelompok kerja)

- ➔ **Safety climate:** (Persepsi, sikap, norma, model SMK3L)
- ➔ **Safety culture:** (belief, attitude, norm, habit, ritual)
- ➔ **Komitmen** semua lini pimpinan (niat, intention)
- ➔ Keteladanan kelompok senior
- ➔ **Norma** perilaku diri & kelompok kerja
- ➔ **Kebiasaan** kerja selamat & sehat seluruh pekerja
- ➔ **Ritual** terkait K3L sbg organizational awareness/alertness
- ➔ Strategi pembudayaan K3L di dalam organisasi

Theory of Planned Behavior (TPB)

based safety, health & environment (SHE)





Sikap K3L



Risk
(unsafe behaviour & condition)



Keteladanan
dari perilaku
senior thd
aturan2

Persepsi/sikap



Mari kita **sinergikan** **keping** nya



Budaya k3l

**Tata nilai
kerja**

**Norma
kerja**

**Perilaku
kerja**

sarpras

**Karakter
kuat**

**Pembiasaan
(R & P), ritual**

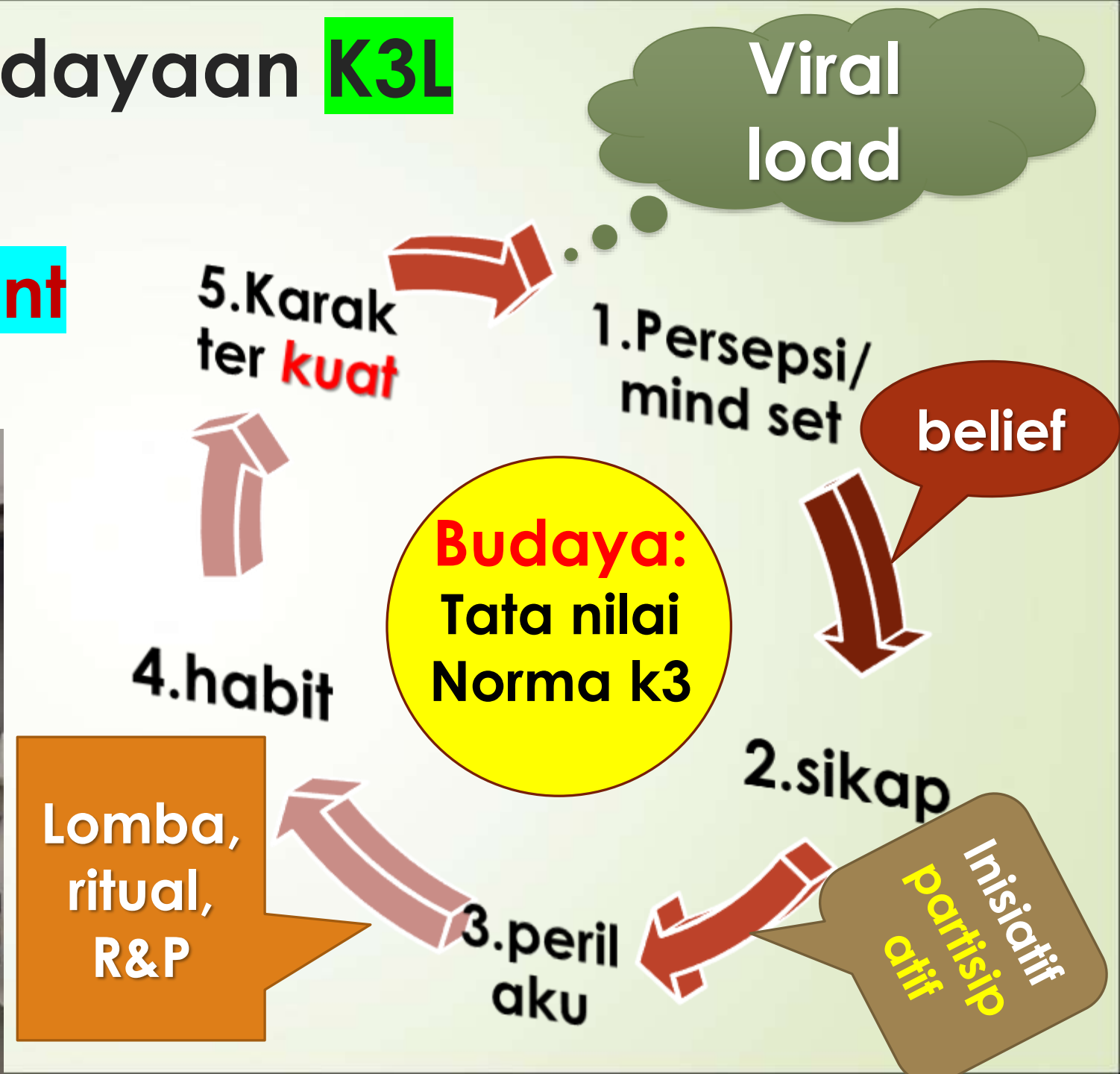


proses pembudayaan K3L

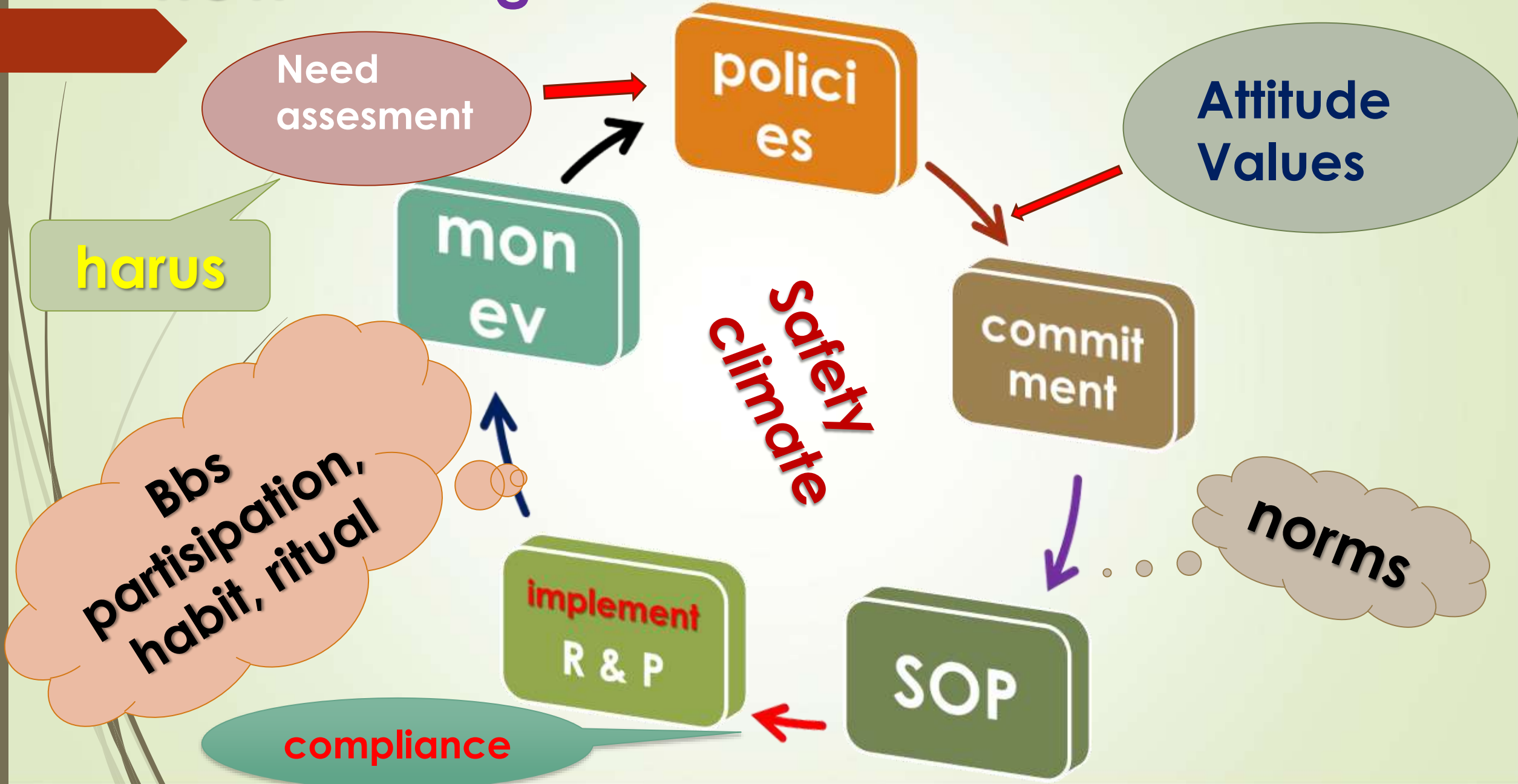
-Aturan/SOP

-Reward & punishment

-ritual



HOW the organization Culture dev



Culture

Penjelasan Materi Culture

Culture / Climate / Control, melakukan pembudayaan K3 di lingkungan kerja, kemudian dilakukan kontrol, monitoring dan evaluasi secara berkala.

Berawal dari laporan International Atomic Energy Authority (IAEA) tahun 1991 tentang kecelakaan yang terjadi di Chernobyl yang memperkenalkan budaya keselamatan, perhatian akan budaya keselamatan suatu organisasi mulai dilirik sebagai salah satu penyebab terjadinya *major accident*. Usaha untuk menurunkan tingkat kecelakaan dimulai dari usaha untuk meningkatkan teknologi (*engineering, equipment, safety, compliance*) dan sistem (*integrating HSE, certification, competence, risk assessment*), tetapi teknologi dan sistem ini tidak dapat menurunkan tingkat kecelakaan sampai yang diinginkan.

Upaya Pembudayaan K3 di Lingkungan FT UNY

Berikut video upaya pembudayaan K3 di lingkungan FT UNY agar civitas akademika di FT UNY berkarakter K3



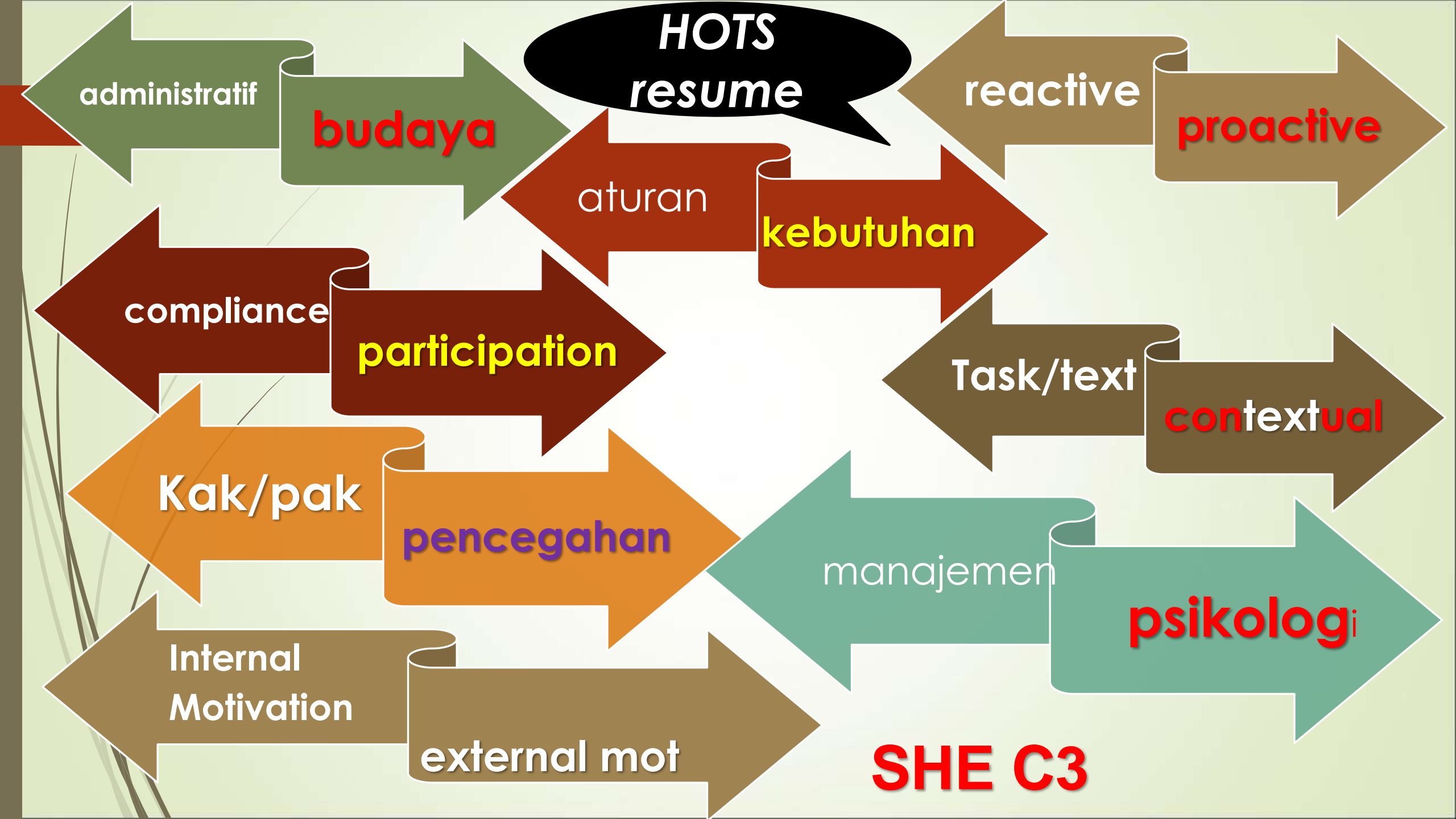
Situasi & kondisi yg kondusif agar tumbuh subur perilaku, habit peduli K3L

Proaktif, Partisipatif, Inisiatif, Viralkan, Lombakan, ritual, ulangi ttg solusi K3I

Dari person menjadi budaya

safety rule of conduct ? FGD





Secara Bersama membangun budaya K3L

Terima kasih

She C3

*Climate
Culture
Control*



Ber karakter kuat sbg pengIMBAS budaya K3L

Target: safety workplace

Sasaran budaya

K3L



FASILITAS KERJA



VENTILASI



PENGENDALIAN
ZAT BERBAHAYA



PENCAHAYAAN



PENANGANAN MATERIAL



PERKAKAS

DESAIN TEMPAT
KERJA



KESELAMATAN
PADA MESIN



- 
1. informasi/Edukasi/promosi/orientasi/induksi/inisiasi
 2. Gizi/nutrisi
 3. Relaksasi
 4. Adaptasi/aklimasi
 5. Antisipasi
 6. Eliminasi
 7. Reduksi
 8. Kombinasi
 9. Simplifikasi
 10. Dekorasi (Label/warna/tanda/garis)
 11. reposisi
 12. asuransi

Alternatif2

Solusi 24 Si

1. Dilusi
2. Otomasi
3. Sinkronisasi
4. Reparasi/perawatan (TPM)
5. Isolasi
6. Proteksi
7. Iluminasi
8. Rekulturasasi
9. Restrukturisasi/reorganisasi
10. Regulasi/aDMINISTRASI
11. ventilasi
12. Supervisi, evaluasi, visitasi

Solusi juga

- layout lokasi ruang & alat/ mesin, scr ergonomis 5s/5r, ECP
- Musik, optimis
- Chek kesehatan rutin
- briefing before work
- Shift n timework, jeda kerja/istirahat
- peletakan fan in & fan out, penyedot debu/racun/asap
- Control, monitoring secara rutin

**Keluarkan Barang
Yang Tidak Terpakai**



**Hindari Menaruh Barang
Di Lantai,**



Rak Bertingkat,



Mudah Dipindahkan, Efisien Dan Aman



Mengambil Barang



TPM *(total productive maintenance)*



Memastikan

mesin, perlengkapan dan peralatan (sarpras)

dapat beroperasi dg aman, nyaman, sehat & produktif

(eliminasi pemborosan dg penerapan SHE, ECP, 5S/5R)

no more dirty
dangerous or
difficult tasks

a say in what
goes on in my
area

smarter
working

5s/5r,

ECP

TPM

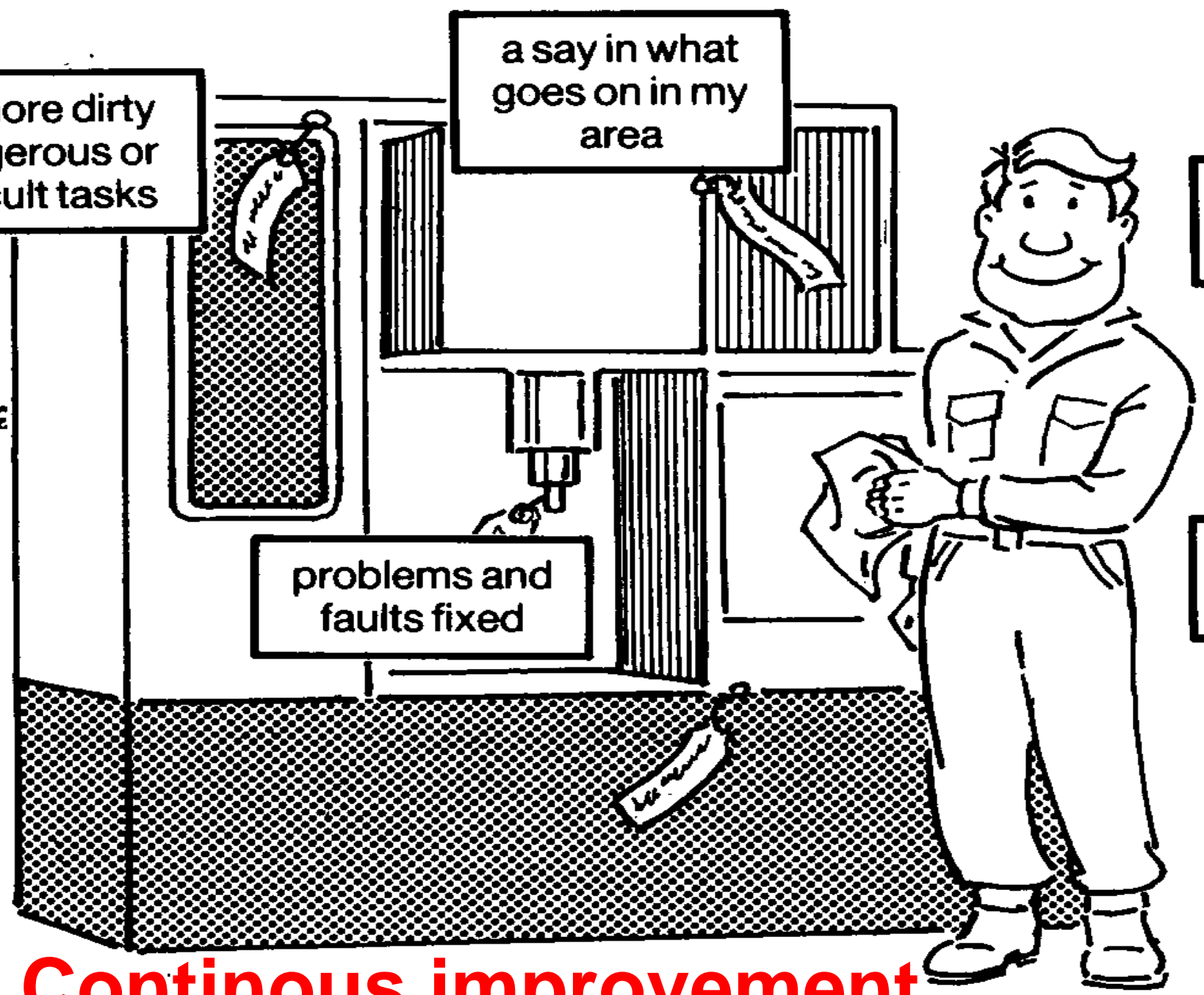
K3L

clean, tidy
and safe
workplace

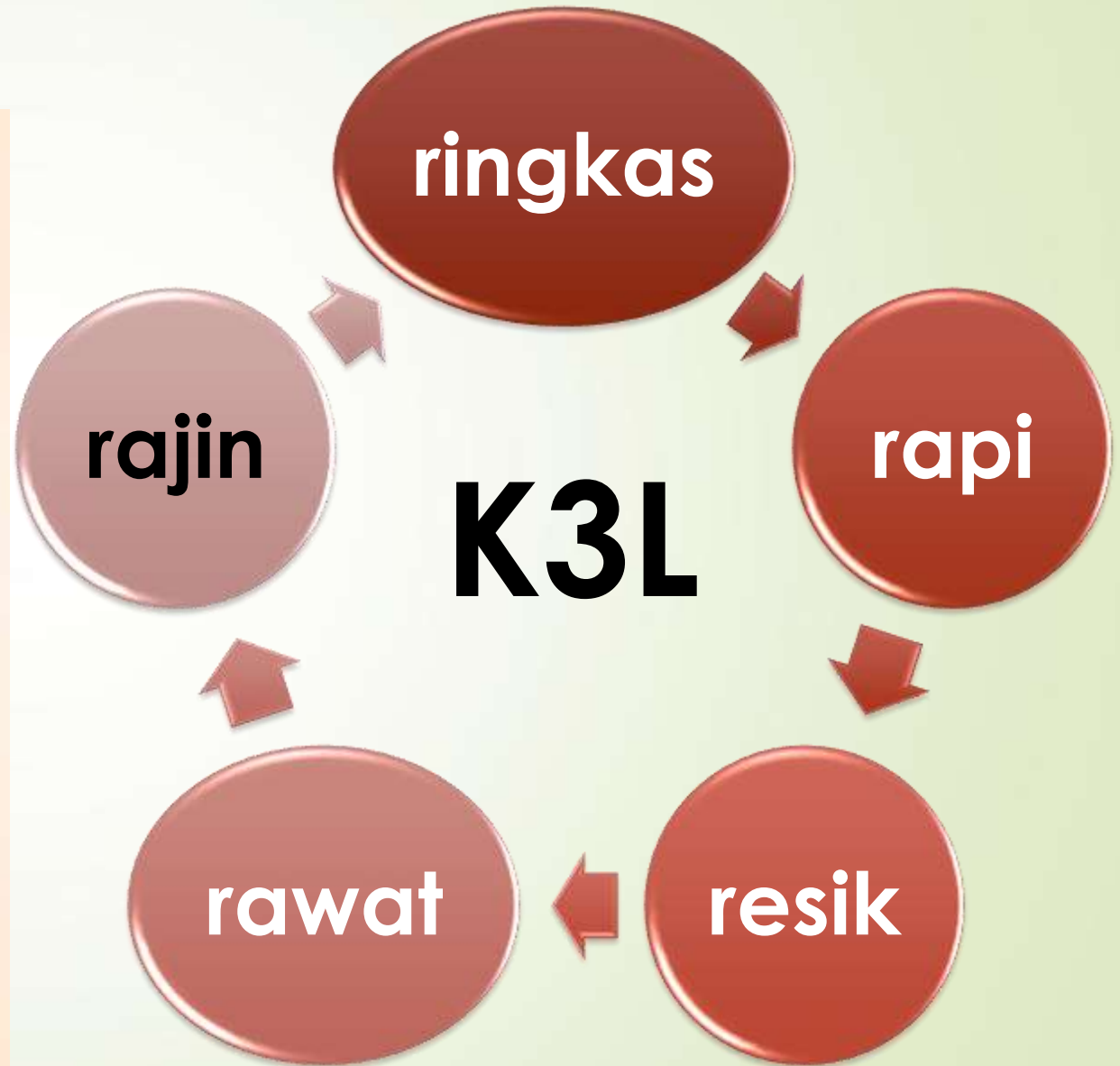
problems and
faults fixed

an opportunity
to learn more

Kaizen Continuous improvement



Budaya K3L dg 5R/5S



PERLU...?

**TIDAK
PERLU...?**



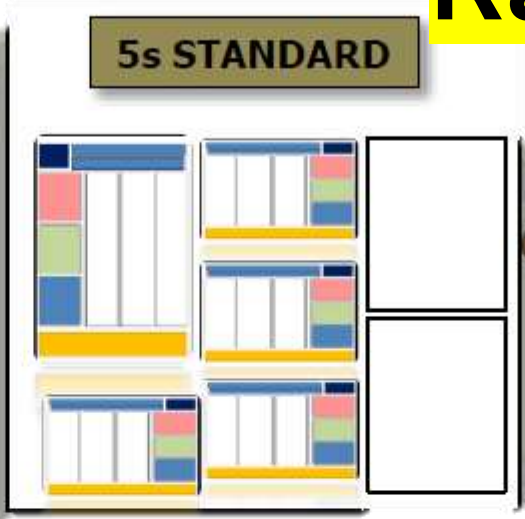
NEED

**NO
NEED**



Mana yg harus dieliminasi ?

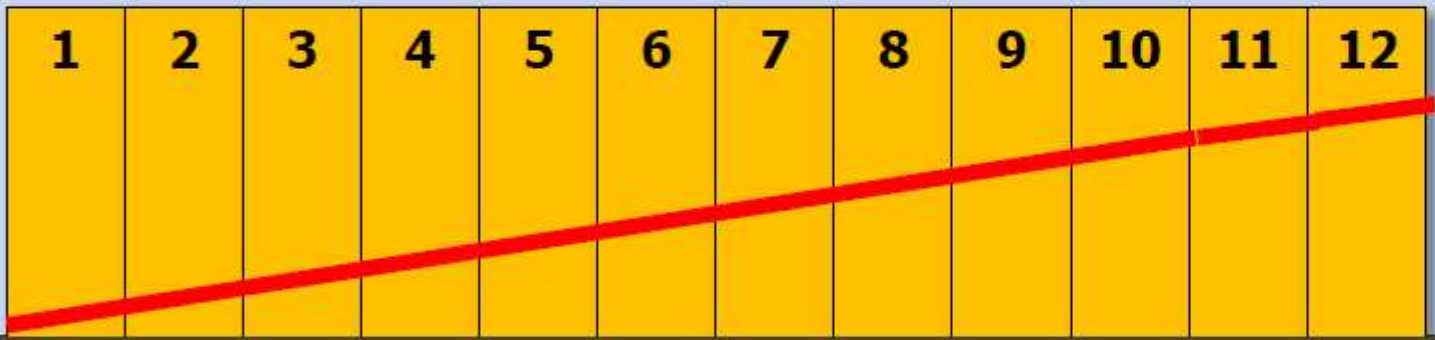
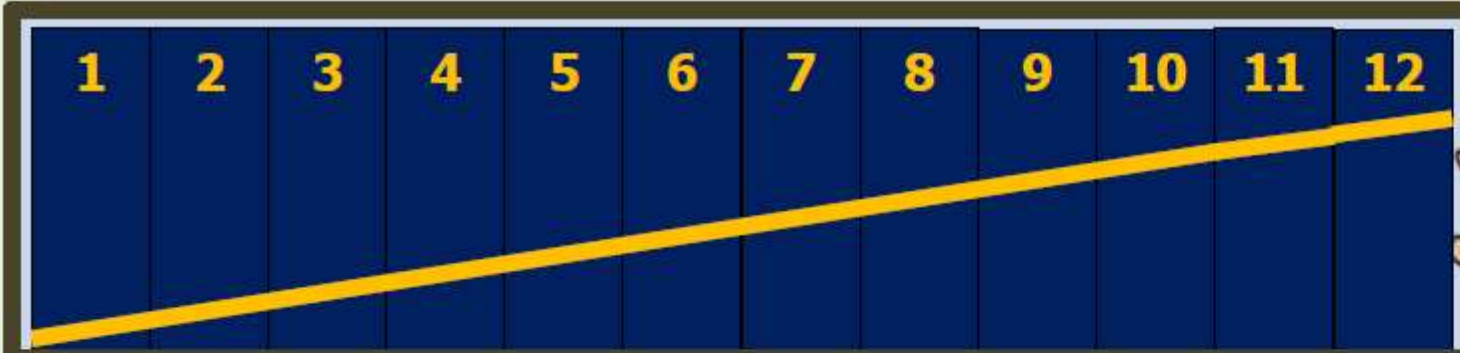
Rapi & bersih





Bagaimana cara merapikan ?

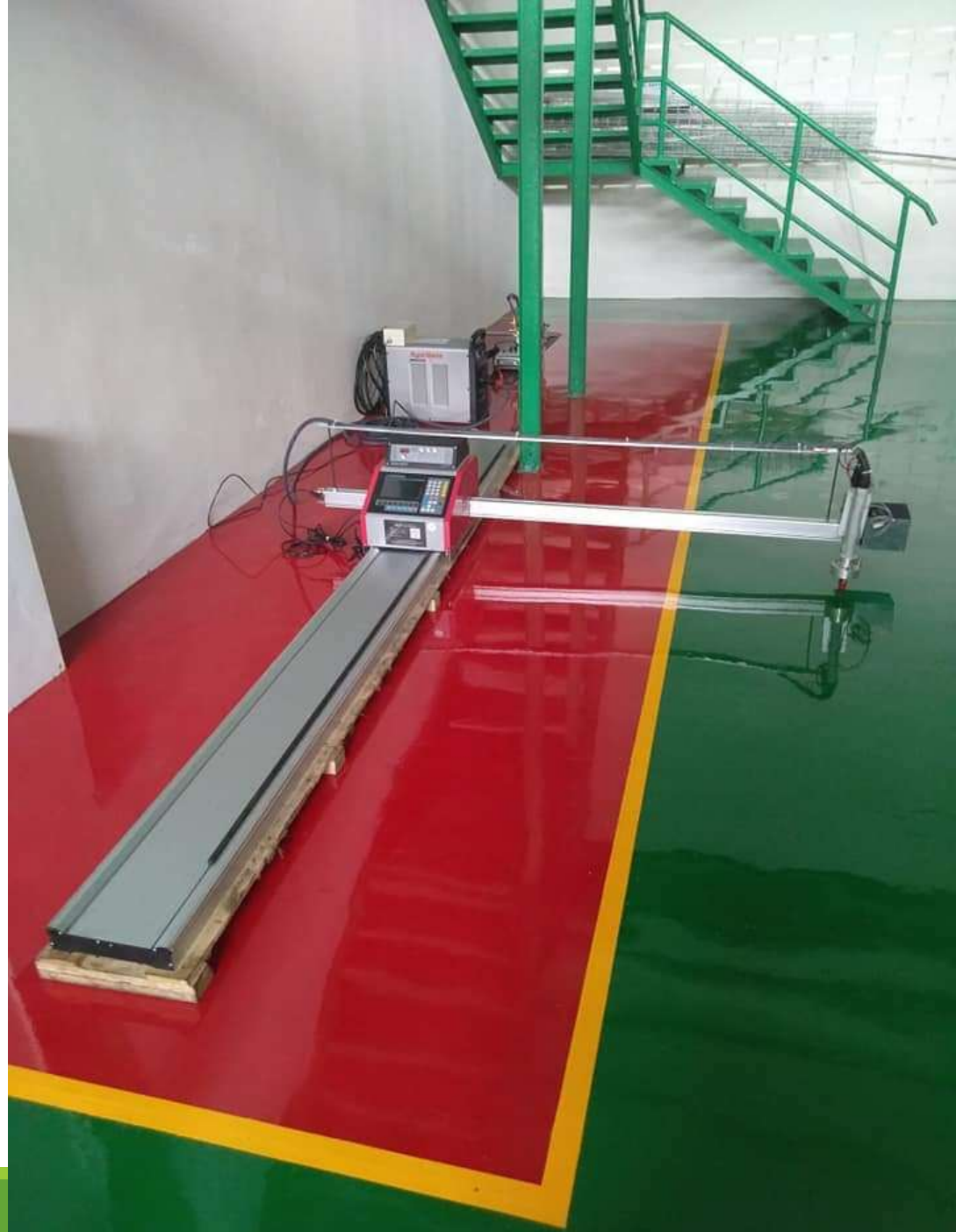




5s STANDARD











Ventilasi ruang Las



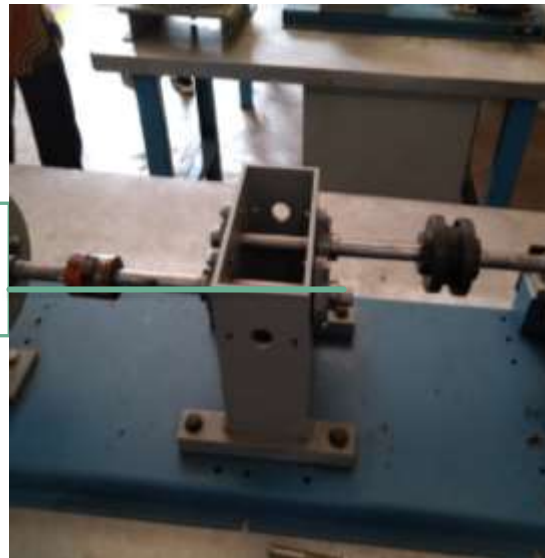
Penyedot asap knalpot







**Modul rotari
tanpa
pelindung**



**Menggunakan Fixed
Guarding (Penghalang
permanen)**

Lantai Kurang Ideal



Keramik
mengakibatkan
Terpleset

Tidak ada
penanda antara
area kerja dan
area produksi



Lantai beton
bertekstur tidak
licin dan kokoh

Area
lintasan
produksi

Area kerja

Lantai Laboratorium Ideal



**Praktek tidak
memakai
APD**



Praktek dengan APD lengkap



Limbah kayu yang tercecer

Vacum penyedot serbuk kayu tidak berfungsi



Penyimpanan limbah kayu

penanganan limbah kayu

