

# **KAIZEN Step 6 :** **“Check effectiveness of countermeasure”**

KAIZEN Training of Trainers  
2015

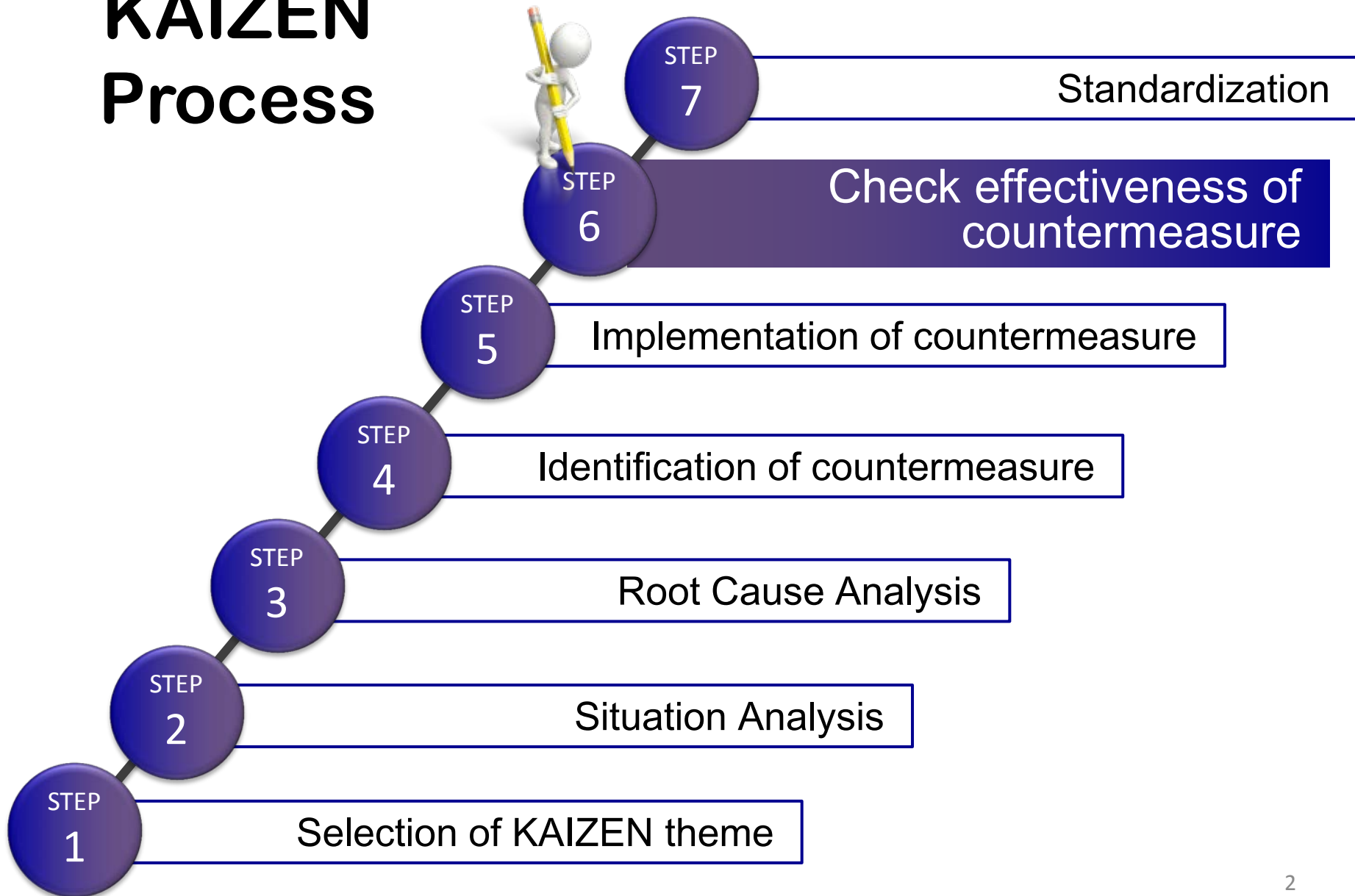


# Objectives of the session

At the end of the session, trainees are able to:

1. Describe process of effectiveness check of KAIZEN activities
2. Identify effective countermeasures
3. Demonstrate the process of effectiveness check at working environment

# KAIZEN Process



# Outline of effectiveness check

1

Situation analysis



2

Effectiveness check

- Reduction rate
- Comparison Pareto chart

3

Relation between countermeasures and effectiveness

*Not implemented · Not effective*

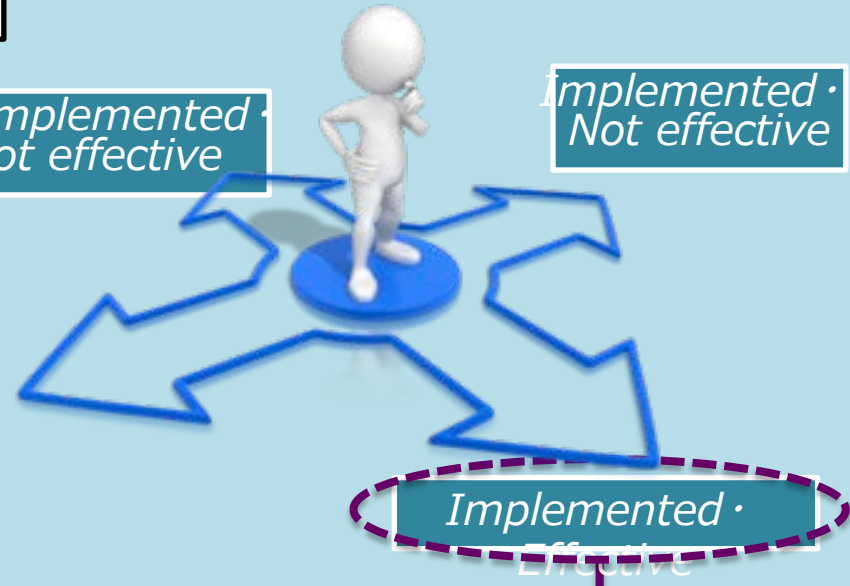
*Implemented · Not effective*

*Not implemented · But effective*

*Implemented · Effective*

4

Go to Step 7: Standardization



# How to check effectiveness of KAIZEN

- Compare frequency and reduction rate of frequency between before and after KAIZEN
- Check achievement to your target set in Step 2 (reduction rate)
- Compare other information in terms of:
  - *Cost*
  - *Work labor*
  - *cost effectiveness*
  - *Quality*
  - *Work process*
  - *Human resource* etc.



# Data collection (Situation analysis after KAIZEN)

- Review methods of situation analysis done in KAIZEN Step 2
- Conduct situation analysis in the same methods:
  - Same data
  - Same period of data collection
  - Same methodologies of data collection

# Development of a comparison calculation table

SQ#	Contributing factors	Before KAIZEN			After KAIZEN			Reduction of frequency	Reduction rate (%)
		Frequency	Cumulative frequency	Accumulation ratio (%)	Frequency	Cumulative frequency	Accumulation ratio (%)		
1	Number of giving wrong injectable medicines	25	25	46.3	7	7	46.7	18	72.0
2	Number of giving wrong inhale medicines	16	41	75.9	4	11	73.3	12	75.0
3	Giving wrong oral medicines	6	47	87.0	3	14	93.3	3	50.0
4	Giving wrong volume of insulin	5	52	96.3	1	15	100	4	80.0
5	Number of giving wrong ointment	2	54	100	0	15	100	2	100.0
	<b>Total</b>	54	-	-	15	-	-	39	72.2

*Data of before KAIZEN*

*Data of after KAIZEN*

*Reduction between before and after KAIZEN*

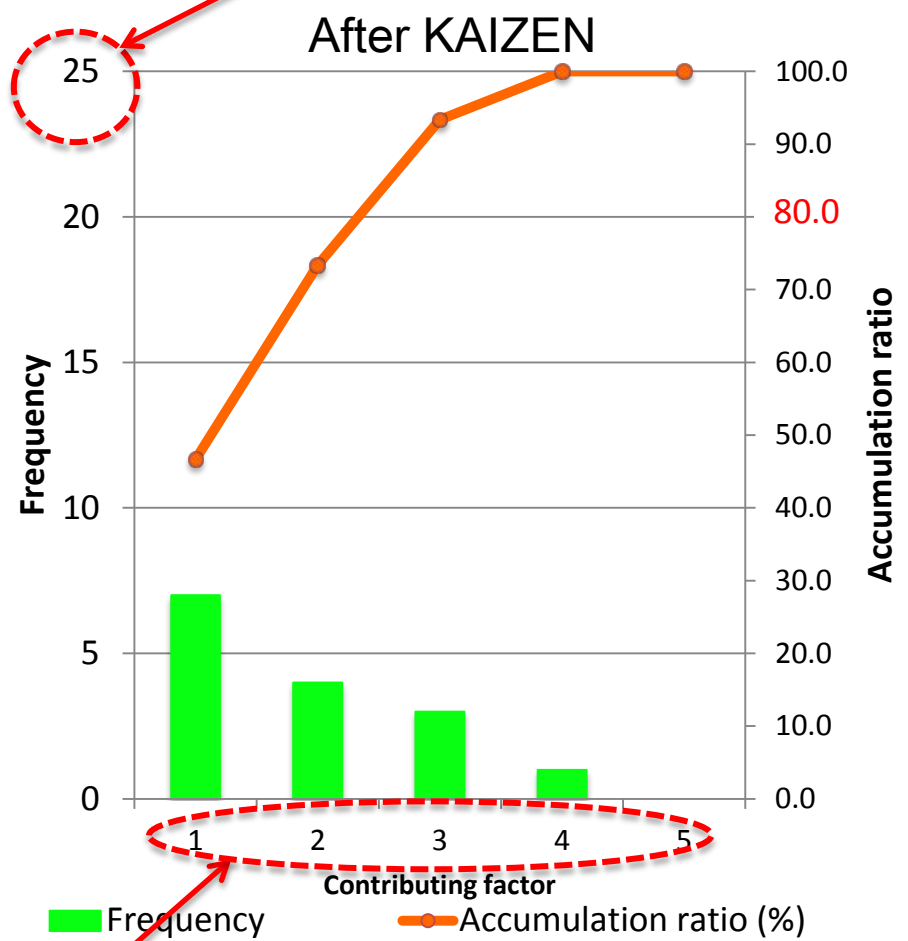
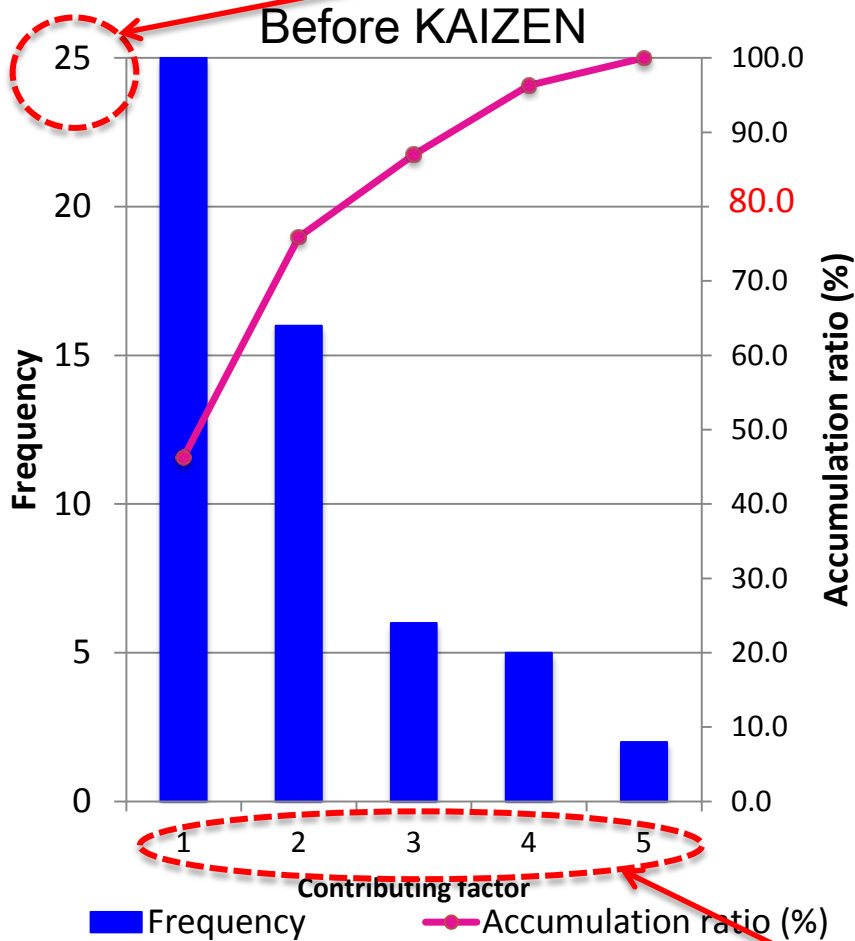
## Formula of reduction rate



$$\frac{(\text{Frequency of before KAIZEN}) - (\text{Frequency of after KAIZEN})}{(\text{Frequency of before KAIZEN})} \times 100$$

# Development of comparison Pareto chart

*Adjusting scale as same level of before KAIZEN*

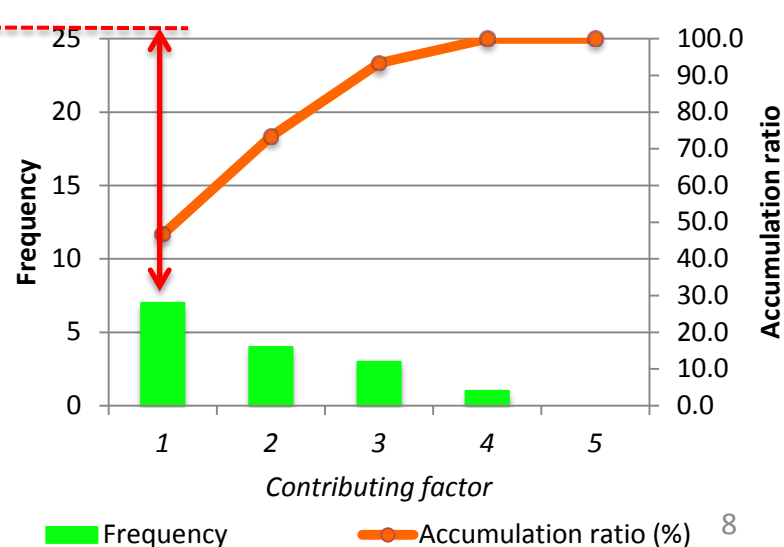
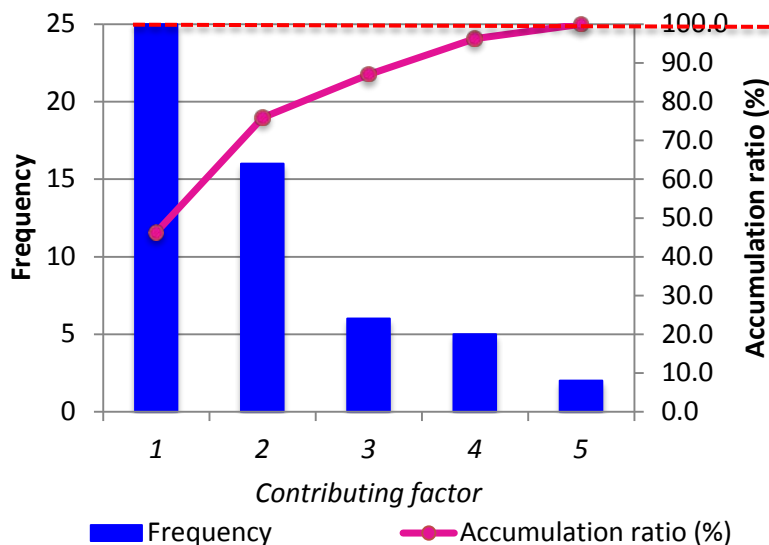


*Same order of "the contributing factors" between before and after KAIZEN even if the order of contributing factors is changed.*



# (Example) Comparison results between before and after KAIZEN

SQ#	Contributing factors	Before KAIZEN			After KAIZEN			Reduction of frequency	Reduction rate (%)
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# Breaking down your effectiveness

- Clarify whether each countermeasures were effective or not
- Relation between countermeasures and effectiveness can be categorized into 4 groups

		Effectiveness	
		Effective	Not effective
Implementation	Countermeasure implemented	① It is effective and need to be standardized	② It is not effective and need to review measures
	Countermeasure not implemented	③ Need to clarify why it is effective	④ Implement some measures (DO something)

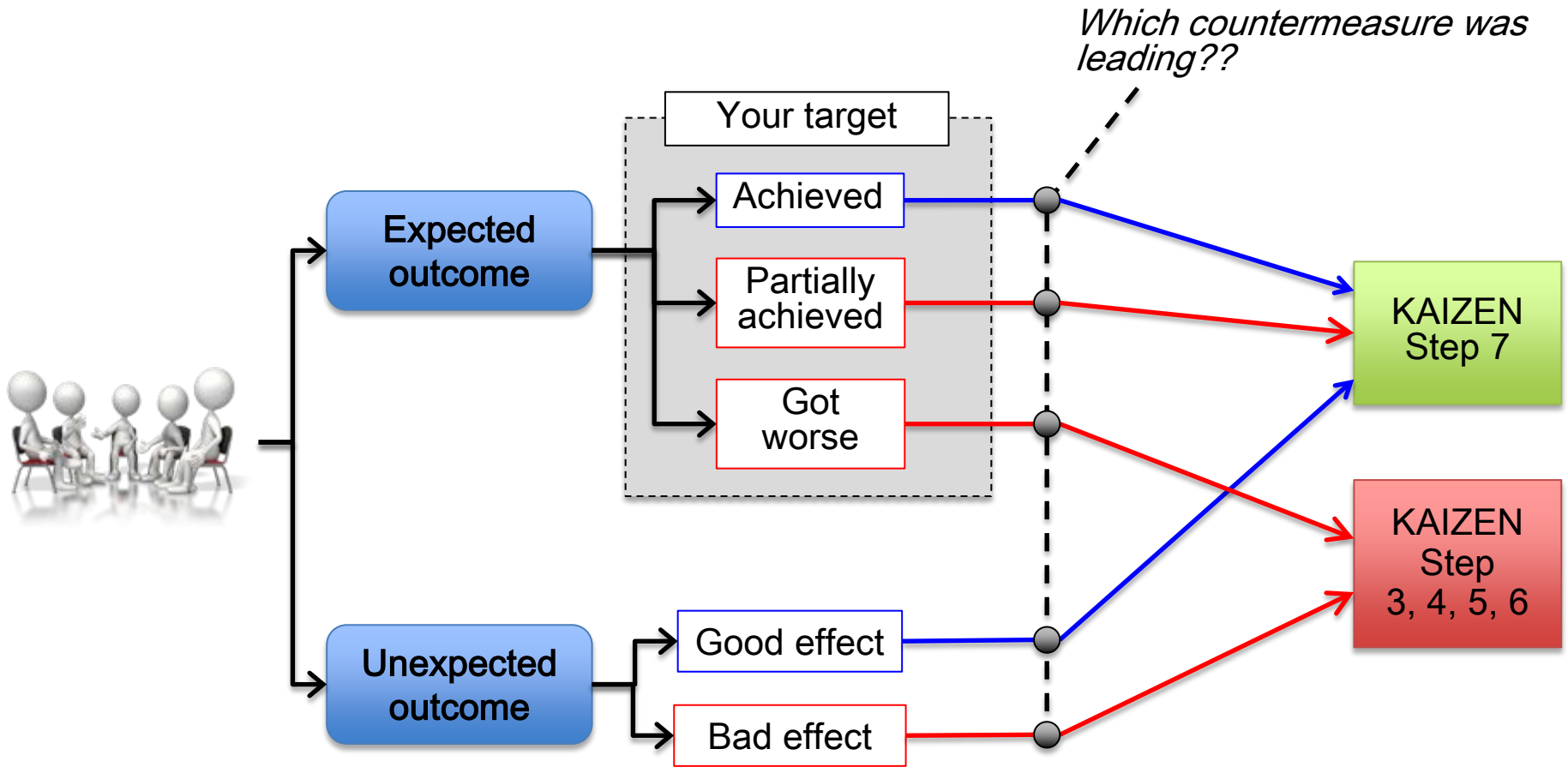
## Cont.

1. Effectiveness should be measured by each countermeasure
2. The countermeasure that is **not** implemented but **show good effects** need to be investigated the reason
3. The countermeasure that is **not** implemented and **cannot measure** effectiveness need to be implemented

## Cont.

3. It is necessary to review countermeasures if the countermeasures were **not** effective
4. The countermeasures that were implemented and judged as “**effective**” will be standardized in Step 7
5. The countermeasures may cause bad effects. If **bad effects are greater than effectiveness**, it is necessary to review the countermeasures

# Identify effective countermeasures



*Thank you for listening*