PDCA

MSQH
EDUCATOR ENABLER EVALUATOR
MALAYSIAN SOCIETY FOR QUALITY IN HEALTH

IEEA International Society for Quality in Health Care External Evaluation Association
Accredited Organisation 2016-2020

IEEA International Society for Quality in Health Care External Evaluation Association
Accredited Standards 2017-2021

IEEA International Society for Quality in Health Care External Evaluation Association
Accredited Surveyor Training Programme 2016-2020

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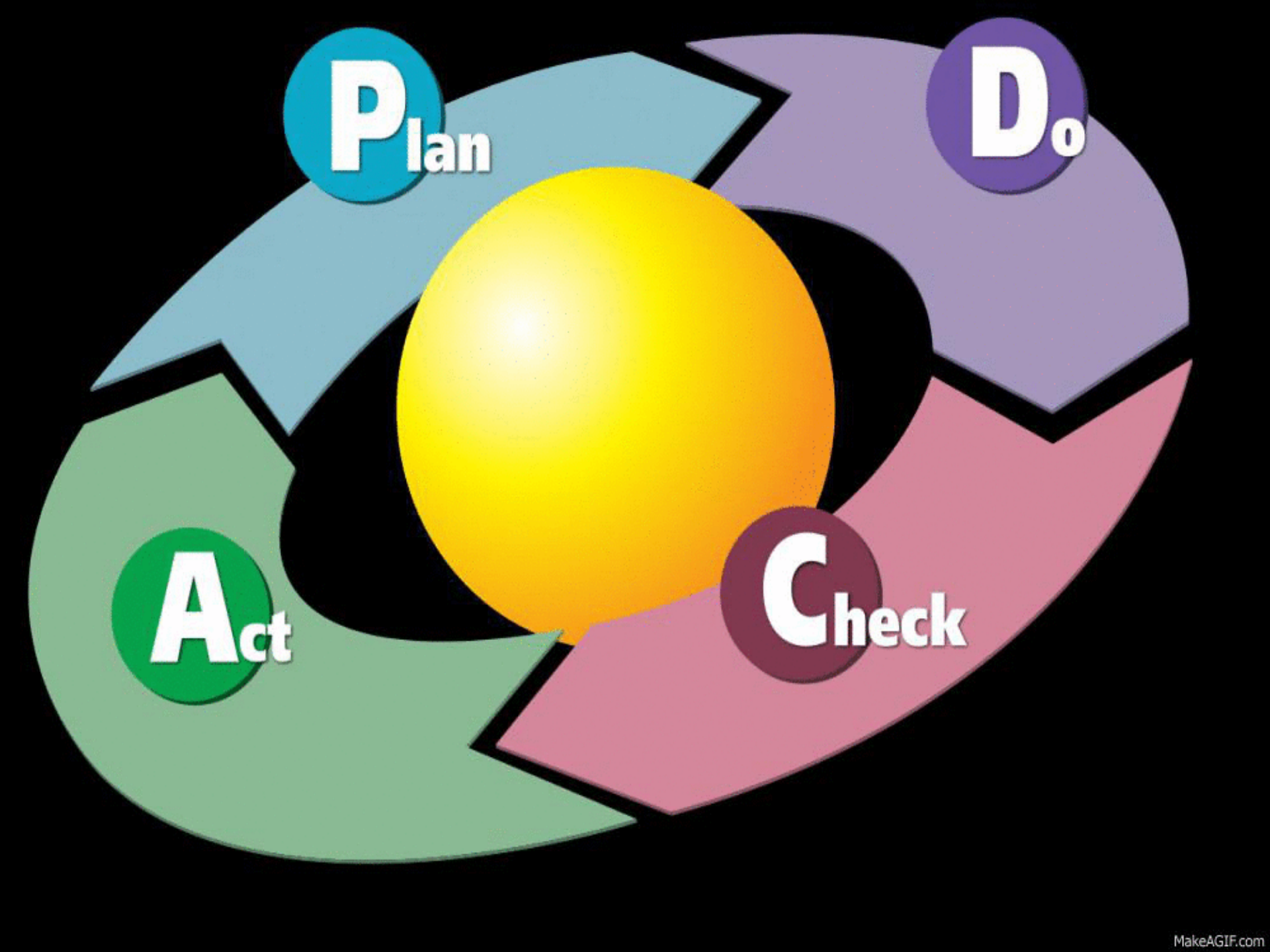
MARSHMALLOW TOWER CHALLENGE

HISTORY OF PDCA CYCLE

- Developed by Walter Shewhart - referred as "Shewhart cycle" – 3 steps
- However in 1950, it was Dr. Edwards Deming that later put this cycle in a continuous feedback loop - Deming Wheel (4 steps).
- Deming's teaching become popular in Japan. In 1951, Japanese engineers picked the idea and evolve it into PDCA.



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- **PLAN** : Design or revise work process to improve results.
- **DO** : Implement the plan and measure its performance.
- **CHECK** : Assess the measurement and report the results.
- **ACT**: Decide on changes needed to improve the process.

BENEFITS OF PDCA

- New process / product / project development
- Stimulates continuous improvement of people and processes.
- Test possible solutions on a small scale and in controlled environment.
- Prevents from recurring mistakes.

PDCA CYCLE

Plan:

- State the objectives of the change; what specifically you are trying to improve, increase or decrease.
- Define the pertinent causes within the existing system that keep the system from achieving the objective.
- Take a baseline measurement of the existing process performance.

- Understand the causes that make up the problems.
- Make predictions of what needs to change to alleviate or eliminate the impact of the causes.
- Develop plans to carry out the change.

Do:

- Implement the 'test' of change in a small scale and manageable pilot form.
- Refine, adjust and modify where needed.
- Document what you have learned, both expected and unexpected outcomes.

Check:

- Begin analysis of data as the change is tested.
- Compare data to predictions.
- Summarise what was learned from the trial – issue resolved or not?
- Proceed will full implementation if results are desirable or return to the PLAN phase if they are not.

Act:

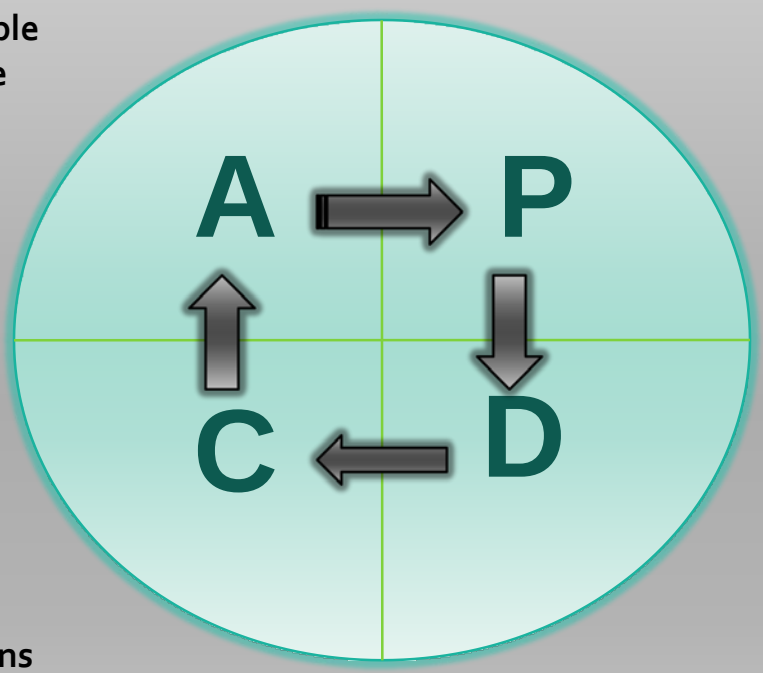
- Incorporate changes learned from the 'test' into the overall implementation.
- Compare the data analysis and compare it with the goal statement.
- Establish the process needed to monitor and maintain improvement over time.

Act

- Install changes
- Complete data analysis
- How will changes be suitable
- What will be the next cycle

PLAN

- State the Objectives of changes
- Define causes
- Take baseline measurements
- Take predictions
- Develop plan to carry out changes



Check

- Begin data analysis
- Compare data of predictions
- Summarize about what was learned

Do

- Implement the test
- Document the problem and expected observation

WHEN TO APPLY PDCA AND WHEN TO APPLY A "QUICK-HIT" IDEA

- Use a "Quick-hit" when:
  - the change is obvious
  - its benefits out weigh its cost
  - it can be installed easily and without a negative impact on related process

- E.g. You misplace you pen all the time, tying it to your name tag, solves the problem.

WHEN TO USE THE PDCA CYCLE?

- the change is complex
- there are multiple causes of the problem
- multiple staff are involved
- multiple process are affected

E.g. Improve in patient follow up process

DESIGNING A PATIENT FOLLOW UP SYSTEM

- Identified all the element of your current patient follow-up system, document it. Indicate where the gaps are?
- Distribute the document to staff and ask them to refer to it as they perform follow up of patients.
- Ask staff to confirm that the document reflects their activities. If it doesn't ,ask them to record their work steps to review at subsequent meeting. Continue to do this until all follow up activities are captured.

- Use the PDCA cycle to plan, test and measure proposed improvements to eliminate gaps and inconsistencies in your current system.

- Implement the improvements that achieve your objectives.

EXAMPLE OF PDCA IN-ACTION

Thank You!