MultiChoice Work Readiness Programme Systems Thinking

Facilitator: Kammy Naidoo 23 June 2020











Systems Thinking Defined



Systems Thinking – Key Concepts



The CIRCLE* Method



The CIRCLE* Method in practice

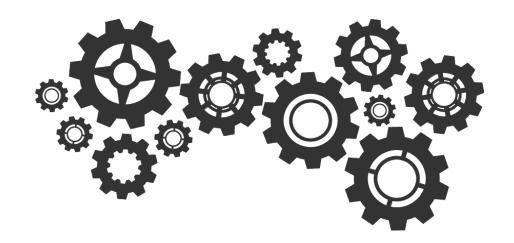


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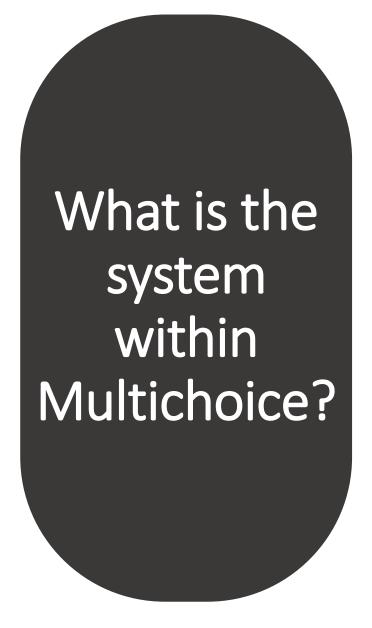


What is a system?

A system is a a **set of things working together** as parts of a
mechanism or an interconnecting
network; a complex whole.











What is Systems Thinking?

"Systems Thinking is a discipline for seeing the **'structures' that** underlie complex situations, and for discerning high from low leverage change... Ultimately, it simplifies life by helping us to see the deeper patterns lying beneath the events and the details."

Peter Senge (1990)



Charts the different perspectives of a situation, assesses its key elements and organises them so that alternative views can be considered



Makes it easier to see the root causes and drivers of the situation, so that a more comprehensive approach can be taken to problem solving



Enables us to act in order to have maximum impact, over both the short and long term, with the least effort









The Iceberg-Application

THE ICEBERG

A Tool for Guiding Systemic Thinking

EVENTS

React

What just happened? Catching a cold.

PATTERNS/TRENDS

Anticipate

What trends have there been over time?
I've been catching more colds
when sleeping less.

UNDERLYING STRUCTURES

Design

What has influenced the patterns?
What are the relationships between the parts?
More stress at work, not eating well, difficulty accessing healthy food near home or work.

MENTAL MODELS

Transform

What assumptions, beliefs and values do people hold about the system? What beliefs keep the system in place? Career is the most important piece of our identity, healthy food is too expensive, rest is for the unmotivated.







Is one that is difficult to solve



Is incomplete, contradictory, and changing



Has complex interdependencies and is reflected by instances where the effort to solve one aspect may reveal or create other problems



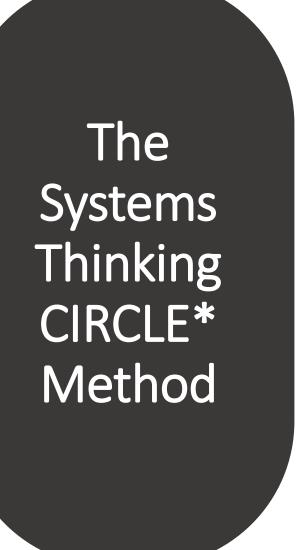
Has no one right answer

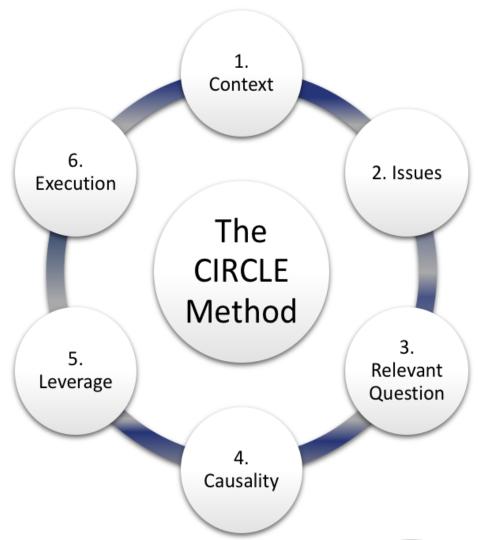


Cannot be solved by simplistic linear thinking!









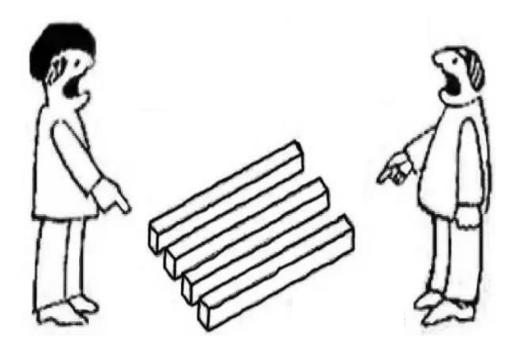
Conditions for Circle Thinking



- Suspension of blame and judgment
- Discipline and patience
- Learning to 'trust the process'
- Greater exercise of listening and questioning skills
- Respect for others' perspectives
- Respect for own perspective



Why is context important?





CIRCLE: Context & Issues



The 'Context' is the **situation** and **environment** in which a complex business problem occurs. It looks at the organisational context and the external environment in which the organisation operates.

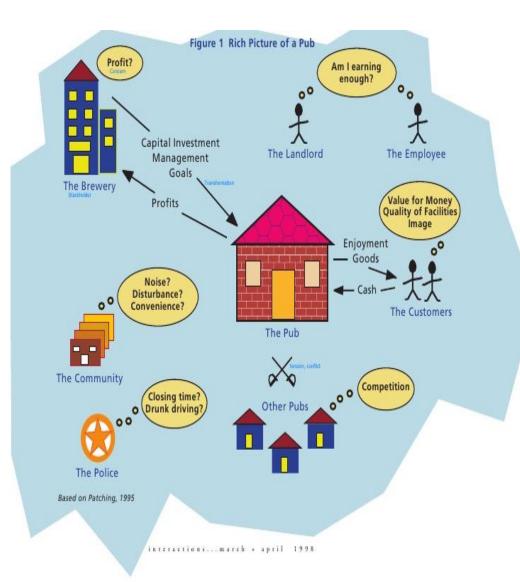


The 'Issues' component of the CIRCLE Model seeks to **unpack the detail** of problem (what is problem, where does the problem occur, when does it occur, who does it impact, what is the impact. It needs to incorporate **different stakeholder perspectives.**

The use of a **rich picture** is a good tool to unpack the context and issues on a complex problem.



Rich Pictureexample





Rich Pictureconsiderations

A rich picture helps us to understand the complexity of an entire situation. It is based on the idea that 'a picture tells a thousand words'. Our intuitive consciousness communicates more easily in impressions and symbols than in words..



Draw the problem or situation in the centre of the page. Think about, what is the problem, where and when does it occur, who does it impact, etc. Back it up with facts where possible.

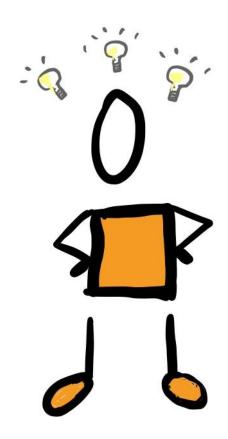


Identify who the stakeholders are and their relationship to the problem or their perspective on the problem.



Draw the context, the causes and effects and any other relevant political, economic, social, technological, legal and environmental features or issues.





30 minutes

Exercise in Break Away Room

- Taking the complex problem you identified earlier, draw a rich picture, that includes the context and issues relating to your problem.
- When you are done, take a pic and post it on the whatsapp group.

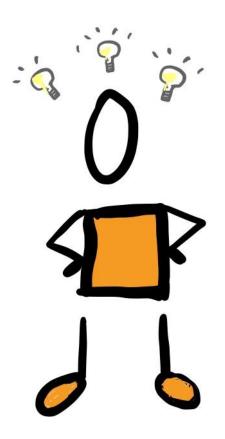




To gather different stakeholder perspectives, you need to have a stakeholder engagement plan. The questions below will guide you in developing a stakeholder plan.





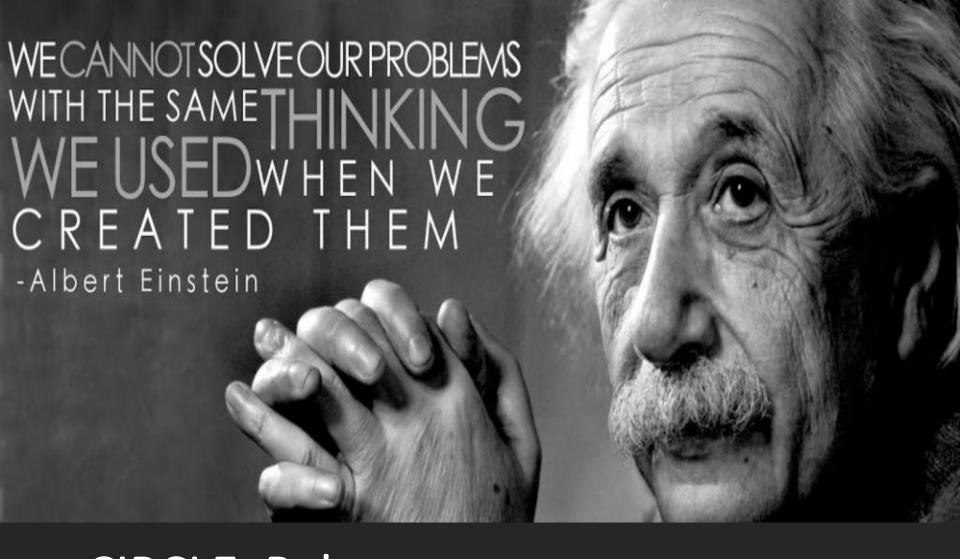


Exercise in Break Away Room

- Draw up a stakeholder engagement plan
- When you are done, take a pic and post it on the whatsapp group.









The 'Relevant Question' component begins to shift the focus from the complex problem to the solution



The question needs to capture the full significance of the problem, be worth solving, be neither too detailed nor too broad in scope



The question should be framed:

What (factors, contributing influences)
would we need to (do, manage) ... so
that (the organisation, problem owner)
will be able to ... (describe the desired
outcome)



Depending on what question you ask, the root causes you identify, and the solutions will be different





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 What do we do to ensure we do not get sued?

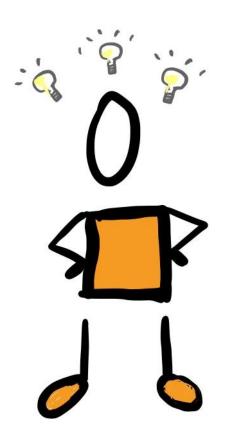
OR

 What actions must we take to rebuild trust with our customers?



CIRCLE: Relevant question examples

- What are all the key influences and factors we will have to handle well in order to attract and retain the talent we need to grow our publishing business and have a decent quality of life at the same time?"
- What do we need to handle well in order to maintain and increase market share and margins whilst having a premium position and price in South Africa?

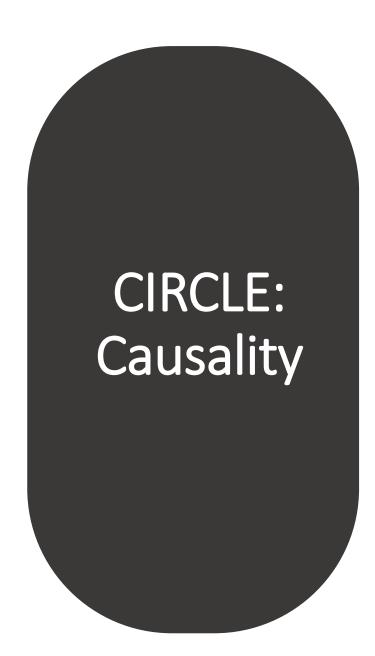


Exercise in Break Away Room

Now that you understand the context and issues better, construct a relevant question. Refer back to the examples, and the format discussed.







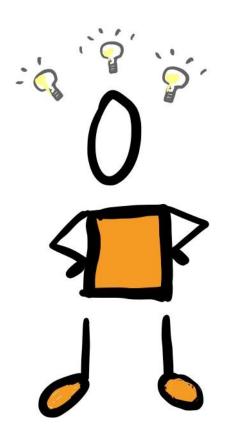


The 'Causality' component of the CIRCLE Model is to look at what will cause a shift in defining the solution to the problem



Consider it from the perspective of what needs to be in place to answer the question. It may entail identifying an issue, factor or insight relating to the question.





Exercise in Break Away Room

In your break away room, **individually,** brainstorm +- 8 answers to your relevant question.





CIRCLE: Causality

The extent of Uncertainty

The flexibility of Structure

The clarity of Principles

The openness of Communication

Arrange your variables in a circle like this....

The extent of Collaboration

etc..

etc...

etc...

The Inter relationship
Diagraph

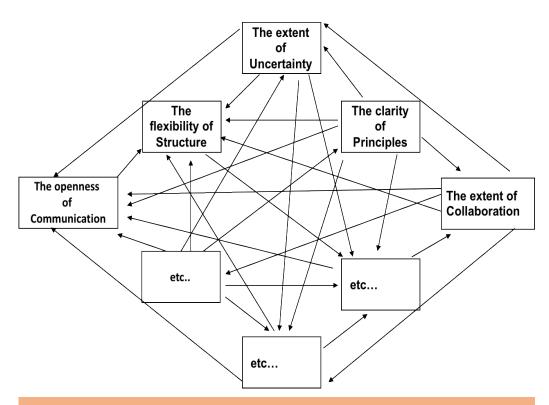
Once you have arranged your variables in a circle, ask the question, what impacts/influences what.

Example, does the extent of uncertainty impact the clarity of principles or does the clarity of principles impact the extent of uncertainty. If the clarity of principles impact the extent of uncertainty, then direction of the is from clarity of principles pointing towards the extent of uncertainty



CIRCLE: Causality

Completed Interrelationship Diagraph



Notes about the arrows:

- Start with a variable, establish its relationship with the other variables, and then move on to the next variable.
- Arrows may be in one direction only. You cannot have it pointing to 2 variables at the same time.
- If you have 8 variables, then the number of arrows in and out, must add up to 7 (assuming there is a relationship), i.e. The number of arrows in and out is equal to the total number of variables minus 1



The extent of Uncertainty

The flexibility of Structure

The clarity of Principles

The openness of Communication

The extent of Collaboration

etc..

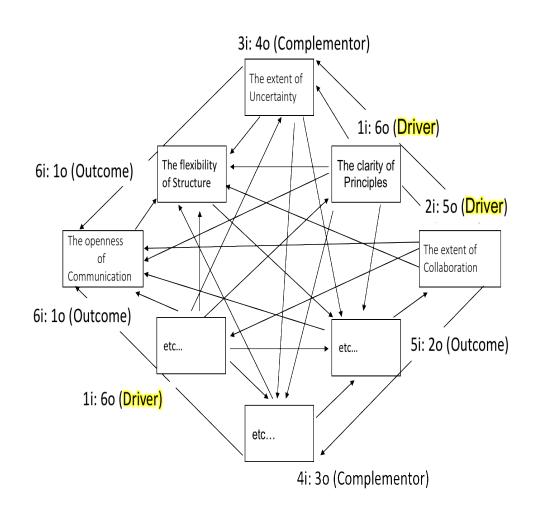
etc...

etc...

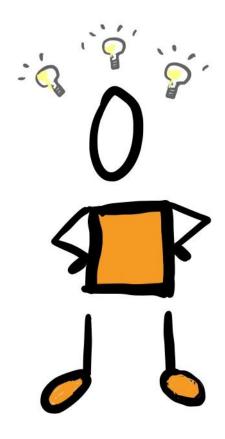


CIRCLE: Leverage

- Count the number of arrows in and out for each variable
- High "O's" are Drivers
- High "I's" are Outcomes
- Rest are Complementors









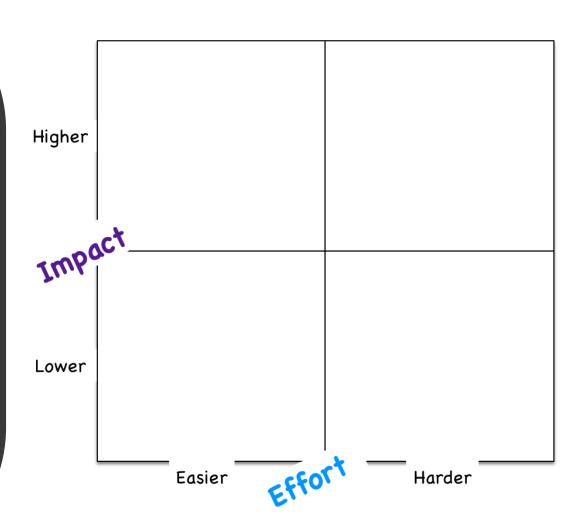
Exercise in Break Away Room

- Arrange your variables in a circle and then start looking at the relationship between the variables.
- Once you have completed all of the arrows and established a relationship, then start counting the number of arrows in, and out for each variable.
- Label your variable as a driver, outcome or complementor
- Share the story with class. The format of your story is, In order for you to answer your relevant question (mention what it is), you need to focus on your drivers, (mention what these are), and by so doing, you will achieve your outcomes (which are...). Hopefully, it makes sense to you!



CIRCLE: Execution

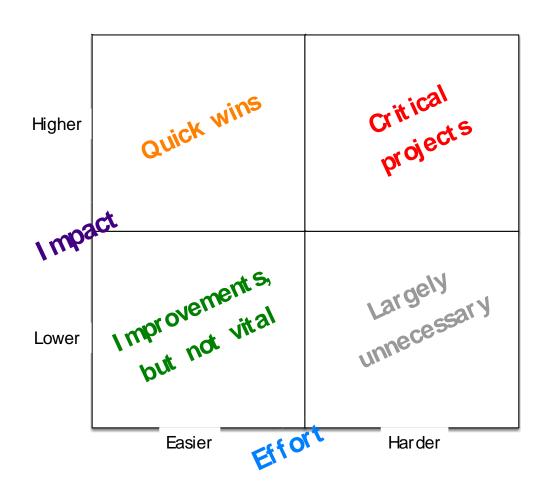
Develop actions for your drivers and plot those actions in the impact/effort matrix





CIRCLE: Execution

- Where there is something reasonably easy to do and high leverage then it's a quick win
- Many priorities are likely to fall in the 'hard to do' and high impact area. These must be turned into well-managed critical projects







- Understanding a System https://www.youtube.com/watch?v=ysa5OBhXz-Q
- 2. What is Systems Thinking? https://www.youtube.com/watch?v=GPW0j2Bo eY
- 4. Difference between complex and complicated https://blog.usejournal.com/7-differences-between-complex-and-complicated-fa44e0844606

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