# Problem Solving as Christian Leadership

BALANCING FAITH, WISDOM, AND ACTION

BRENT NEMMERS (BN.SCD.WELS@GMAIL.COM)

# Start With the End in Mind—What's the Payoff?

If you take nothing else away from this session, it should be this:

To lead effectively as you endeavor to solve problems in a godly fashion,
***Spend less time assuming and asserting; spend more time asking and assessing.***

# What is Problem Solving?

"Solving a problem simply means representing it so as to make the solution transparent."—Herbert Simon, Nobel Prize winner

We will go with something a little more practical:

"Problem solving is the act of *defining* the problem, *diagnosing* the problem's root cause, *identifying* and *implementing* a solution, and *sustaining* results."—American Society for Quality (ASQ)

# Biblical Examples of Solving Problems

- Easier to find negative examples (People of Babel, Athaliah, Joseph's brothers, Simeon & Levi, etc.)

- Positive examples exist (Hebrew midwives, Hezekiah), but we don't get a process to follow

- We see problems solved, but we don't get much insight into their problem solving methods, because the Bible is not a handbook on problem solving

- However, we are not left without overarching principles, guidance

# Problem Solving Best Practices

| Problem Solving Advice | God's Advice |
|---|---|
| Build a team | Proverbs 27:17 |
| Make your team diverse (no echo chambers) | Proverbs 11:14; 15:22;  1 Kings 12 (Rehaboham) |
| Know your limitations, constraints | 1 Chronicles 13, 15 (David moving the ark) |
| Understand the problem, don't jump to solutions | Proverbs 18:13, James 1:19 |
| Question/challenge your assumptions | Proverbs 18:17 |

# What, Why, How Problems

| What | Why | How |
|------|-----|-----|
| What flooring should we choose for the sanctuary? | Why don't we have more return visitors? | How do we get more return visitors? |
| What type of program should we start to reach our Community? | Why don't people use our live stream? | How might we start a pregnancy care center (or a prision ministry, etc.)? |
| What will replace our Mothers' Day Out program? | Why is our congregation shrinking & struggling? | How might we address the 'loneliness epidemic'? |

# What Makes This so Hard?

West Undershirt Ev. Lutheran Church is remodelling. The choice of flooring in the sanctuary has everyone on edge. Members have suggested a wide range of alternatives. The Property Team says stained concrete is the right answer because of the ease to clean; the Building Committee is pushing for hardwood because it 'honors God with its beauty'; some in the congregation worry about the cost of the project and want an inexpensive approach. Meanwhile, the Pastor is hiding in his office because of it all. How did we get here and how do we get to a decision without adding to the conflict?

How does this become a divisive issue (aside from the usual interpersonal conflicts)?

- No common evaluation criteria

- No clear, defined priorities

- No insight into the rationale, methodology of the decision making

# What Tool Will Solve This?

Before we look at tools, we need to talk about the common misconception that just adopting a new tool will fix our problems

Assume you are building birdhouses, but they are of very poor quality

- If your birdhouses have sloppy cuts and I give you a pneumatic nail gun, you will just build poor quality birdhouses faster—You need the right tool for the job

- If I give you a mitre saw, but your cuts were good already, you will also build more bad birdhouses in less time—You need to understand your weaknesses first

- If I give you a mitre saw and you don't understand how to use it, you may make worse birdhouses (and lose some fingers in the process)—Understand the tool first

- If your *plans* are flawed, you can spend lots of time and money on tools and you will still end up with bad birdhouses

# Weighted Decision Matrix

A weighted decision matrix attempts to quantify how various options stack up against one another by assigning weights to the essential features of each option and rating the  against those measures

This tool can help reduce subjectivity and work toward consensus on the relative strengths and weaknesses of proposed solutions

How might a tool like this help clarify West Undershirt Ev. Lutheran's selection of flooring for their sanctuary?

- Which is more important in this situation, durability or ease of cleaning?

- How do each of the proposed materials affect the sanctuary acoustics?

- Is there a clear winner when we measure each option's essential features?

- If there is not a clear winner, can we limit the discussion to a smaller set of alternatives?

# Weighted Matrix—Floor Coverings

| Material | Material/ Install Price | Acoustics | Durability | Safety | Ease of Cleaning | Total |
|---|---|---|---|---|---|---|
| **Tile** | Good | Good | Great | Poor | Great | **58** |
| **Low-pile Carpet** | Great | Good | Good | Great | Great | **63** |
| **High-pile Carpet** | Good | Poor | Poor | Good | Poor | **17** |
| **Laminate** | Good | Great | Good | Good | Good | **39** |
| **Hardwood** | Poor | Great | Great | Good | Good | **52** |
| **Stained Concrete** | Great | Good | Great | Poor | Great | **73** |

# Weighted Matrix—Behind the Scenes

| Rating | Value | Definition |
|--------|-------|------------|
| | 0 | No impact |
| Poor | 1 | Inadequate Solution |
| Good | 3 | Adequate Solution |
| Great | 9 | Solid Solution |

| Category | Weight |
|----------|--------|
| Material/Install Price | 2.5 |
| Acoustics | 1.5 |
| Durability | 3.0 |
| Safety | 1.0 |
| Ease of Cleaning | 2.0 |
| | 10.0 |

| Material | Material/Install Price | Acoustics | Durability | Safety | Ease of Cleaning | Total |
|----------|------------------------|-----------|------------|--------|------------------|-------|
| Tile | Good | Good | Great | Poor | Great | 58 |

$(3*2.5) + (3*1.5) + (9*3.0) + (1*1.0) + (9*2.0) = 58$

# What Features do we Pick?

Do up front work/research (how do floor coverings affect acoustics)

What are we looking for in our acoustics (organ vs. praise band)

Might need to break this down into pieces (congregational area vs. stage/platform)

Acoustics rankings could go opposite directions depending on the situation (nursery vs. sanctuary)

Subjective categories like Aesthetics will require careful handling

# What might we try to reach consensus?

If we can't agree on the most important features, one approach is *Multivoting*

- The options are listed on a flip chart or paper on the wall
- Each participant receives sticky notes or adhesive dots to cast their votes
  - 1 for every 3-5 candidate categories, or
  - 3 total (1 each for 3, 2, 1 points) to select their top three selections
- Votes should be cast in reverse order of seniority, authority to avoid undue influence
- No discussion until all votes cast
- May require multiple rounds, dropping low vote-getters each time

# Weighted Matrix—Best Practices

| DO | DON'T |
|---|---|
| Establish weights/categories in advance | Skip important categories |
| Establish weights/categories by consensus | Forget to involve interested parties |
| Explain the methodology clearly | Have mushy or highly subjective categories |
| Do your research on each option | Have too many categories |
| Make your research available | Have equal weights for multiple categories |

**Do NOT put your thumb on the scale
or build after the fact to justify a decision!**

# What Type of Program Should we Start to Reach our Community?

If we need to generate ideas, what techniques do we use?

Brainstorming is the most common approach

What are the rules?

1) Go for quantity

2) Withhold criticism

3) Welcome wild ideas

4) Combine and improve ideas

Often done by having one person write down ideas while the team generates ideas

# Brainstorming Aid—Constraint Questions

Add/Remove constraints (one at a time) to stimulate ideas

- If you had unlimited funds (but limited volunteers)

- If you had unlimited volunteers (but limited funds)

- If you had to start a program next week

- If you had a year to get a program in place

# Brainstorming

Issues with Brainstorming

- Authority bias (Participants, Recorder)
- Plateauing early

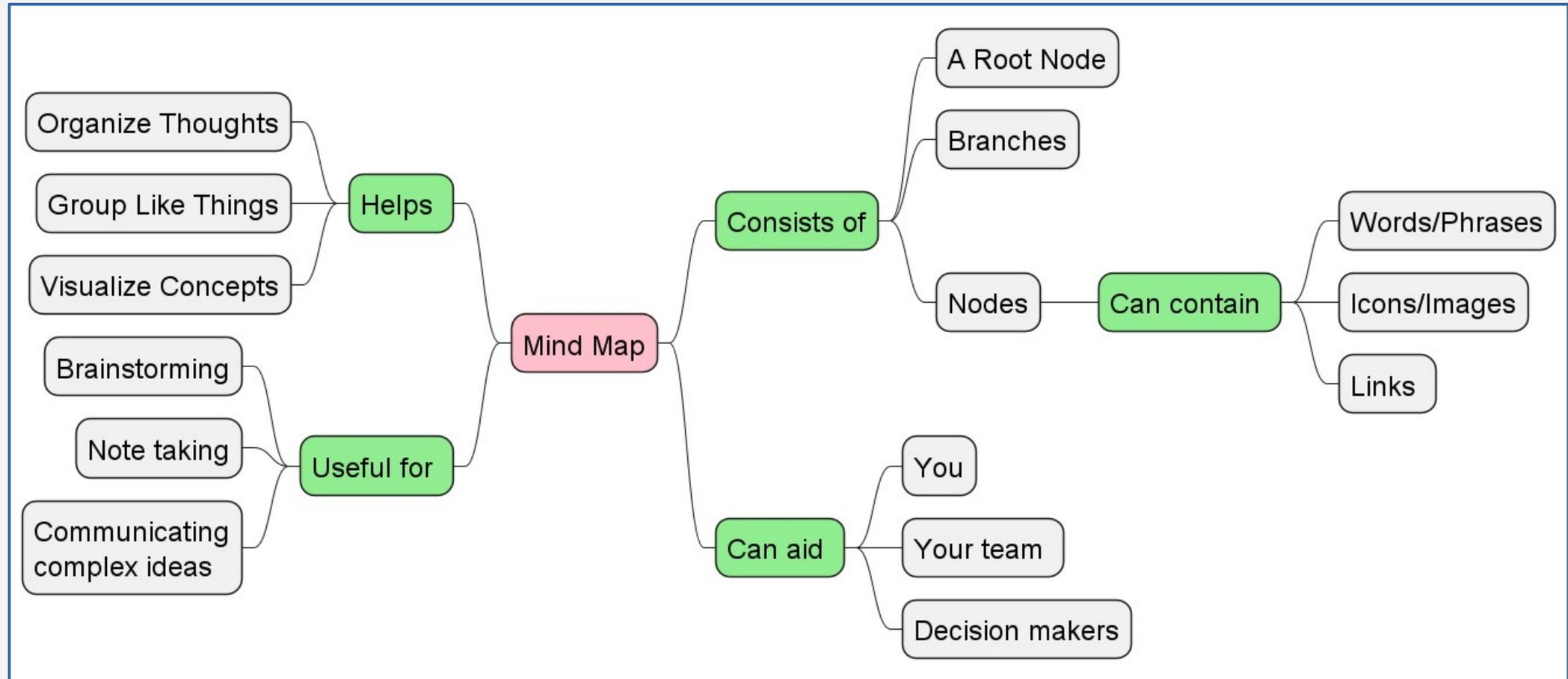Some best practices from McKinsey & co. to help fight biases and promote creativity:

- Obligation to Dissent
- Perspective Taking
- Constructive Confrontation (What would you have to believe?)
- Multivoting

# Brainstorming Alternative—Brainwriting

**6-3-5 Technique**

- Six participants (ideal, 4-7 works), working in silence
- Each receives a sheet of paper with the problem statement written at the top and a grid for recording ideas
- Each participant writes three ideas in a row on the paper with a five minute time limit
- Each then passes their sheet of paper to the person next to them
- Each writes an additional three ideas on the next row within five minutes
  - Can build on prior ideas
  - Can take prior ideas in a different direction
  - Can be unrelated to prior ideas
- The process continues until everyone has put three ideas on each page
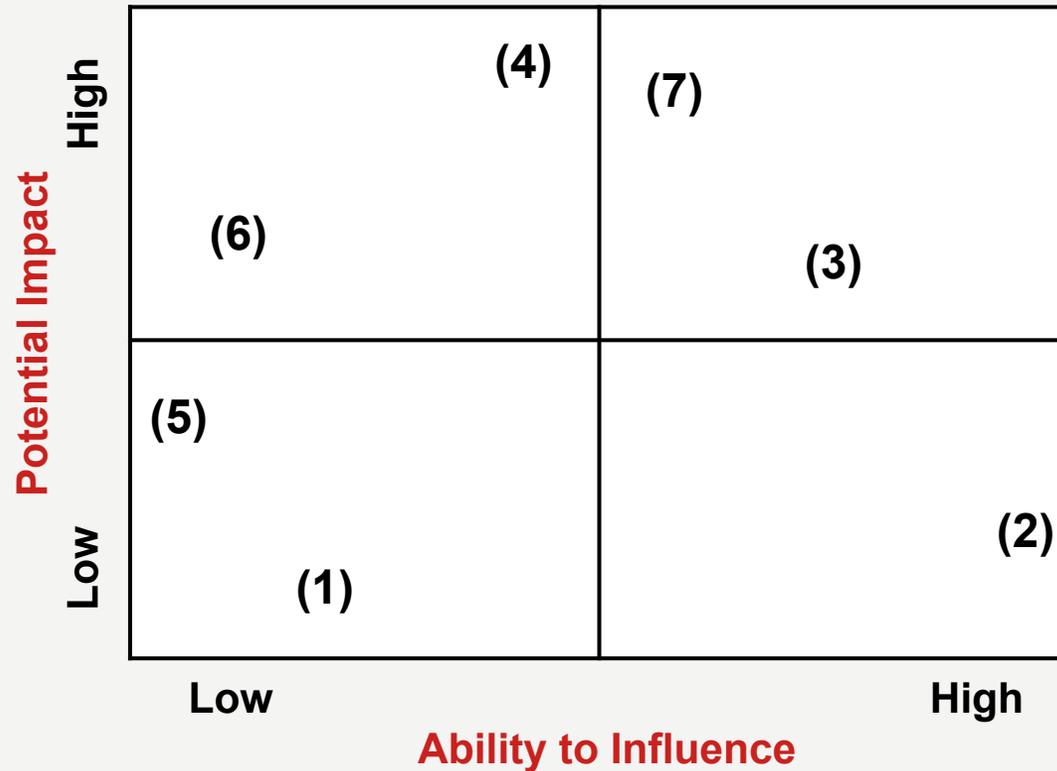
# Mind Map

# Mind Map for Brainstorming
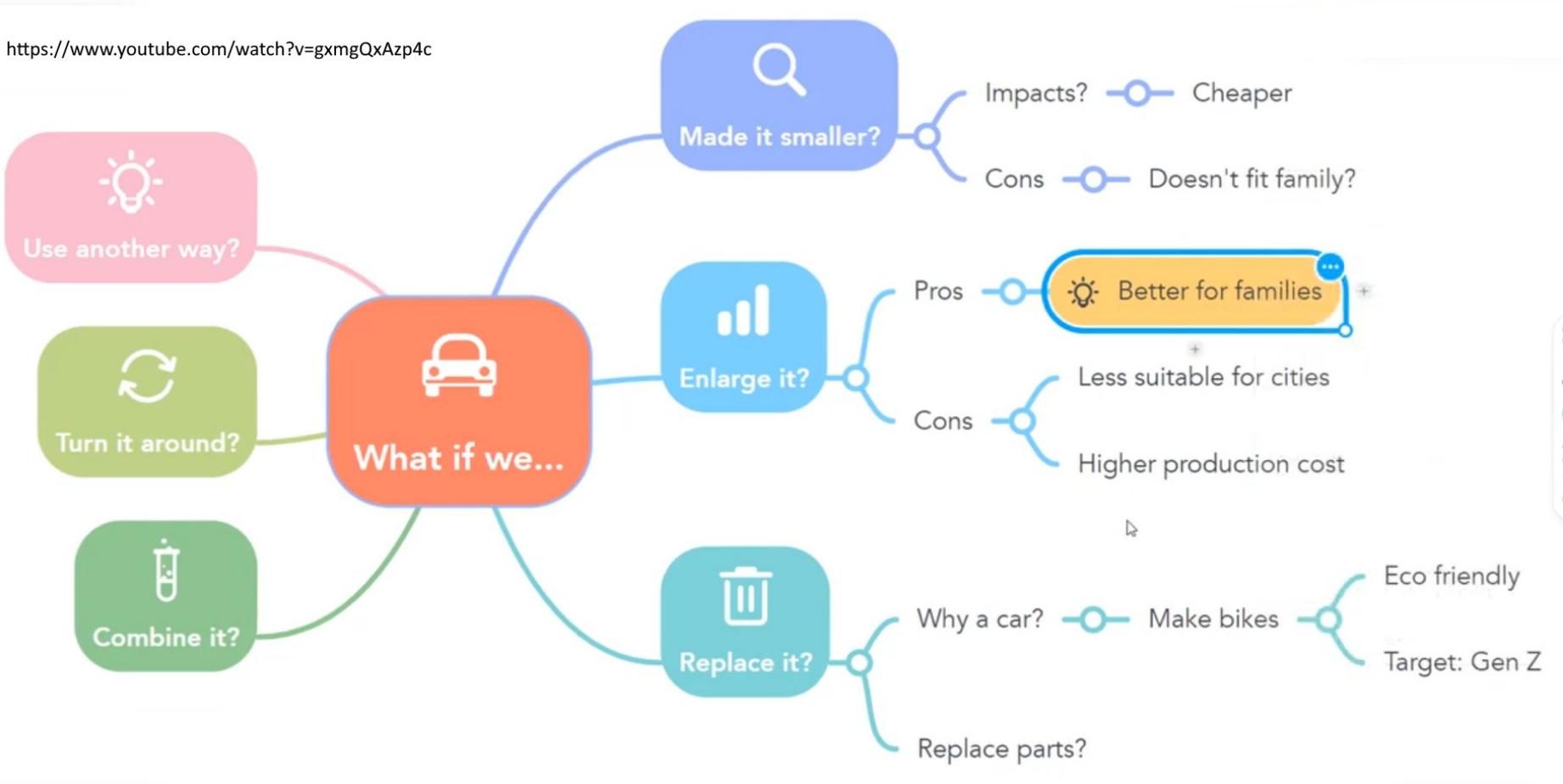


https://www.youtube.com/watch?v=gxmgQxAzp4c

# Eisenhower Matrix for Prioritization

|  | **Urgent** | **Not Urgent** |
|---|---|---|
| **Important** | Do It | Schedule It |
| **Not Important** | Delegate It | Dump It |

The Eisenhower Matrix is a tool for efficiently addressing the tasks brought to you.  Actions are based on whether or not requests are Urgent (*calling for immediate attention*) and/or Important (*deserving serious attention*).

Ranking within the quadrants further refines the priorities

# Prioritization Matrix



Goals? Potential Solutions? Issues to Address

Can rank within the quadrants

| ID | Issue, Cause, Solution |
|----|------------------------|
| 1 | lorem ipsum dolor sit amet |
| 2 | consectetur adipiscing elit |
| 3 | sed do eiusmod tempor |
| 4 | incididunt ut labore |
| 5 | et dolore magna |
| 6 | ut enim ad |
| 7 | minim veniam |

# Decision Balance Sheet

| Idea/Proposal | Pros | Cons | Potential Mitigations |
|---|---|---|---|
| Food drives for local food pantry | Low cost; short-term; Meet lots of neighbors; Christ's Love obvious | Requires large number of volunteers | Promote among teens, tweens |
| English conversation club | Cross-cultural opportunities; Low barrier to entry | Could easily drift into controversial issues | Establish clear guardrails |
| English as a Second Language | Cross-cultural opportunities | Requires training, materials, teaching skills | Do we have teachers with experience to help? |
| Grief support group | Helps the hurting | No experience in congregation | Reach out to WELS Parasynodicals |
| Prison ministry | Large field to work | Fear may discourage volunteers | Onsite speaker from Prison Ministries |

# Why are we Here?
## (Five Whys—Bring out your Inner Toddler)

5-Whys is a simple technique developed at Toyota to uncover the 'root causes' of an issue. It is particularly good for low-risk situations where the team has insight into the issue, there is small number of anticipated causes, and the team is small.

The team states the problem and starts asking why the problem occurs. For each reason the team comes up with, they again ask, 'Why?' until they reach a root cause. The number of why questions will vary, but 5 sets of 'Why?'s are usually sufficient.

# Five Whys In Action

| Problem: Our live stream is rarely viewed | | | | | | |
|---|---|---|---|---|---|---|
| **Why 1** | **Why 2** | **Why 3** | **Why 4** | **Why 5** | **Why 6** | **Root Cause** |
| People not aware stream exists | Link not obvious on website | Website has become cluttered | Webmaster too busy to clean up | Webmaster prefers working solo | | Webmaster not seeking necessary help |
| People stopped watching stream | Stream is not considered reliable | Stream not always active during service | Not all ushers know how to start stream | No training exists for ushers | | Lack of usher training |
| | | Stream sometimes dies during service | Old computer running stream | No line item in budget for new computer | No one responsible for AV budget | No 'owner' of AV equipment |
| | | | Internet connection slow | High speed Internet not available | | Internet Service Limits |

# How do we Get More Return Visitors?

Let's stop and ask some other questions first:

- How many first time visitors have we gotten in the last year?

- How many of the 1st time visitors are potential prospects?

- What percentage of the 1st timers have returned?

Why are we asking these questions?

# Opening / Closing Questions

Opening closed questions and closing open questions is another great way to test assumptions, uncover biases

For example:

- How should our congregation address the loneliness epidemic?  (Open)
- Is there a loneliness epidemic in our Community? (Closed)

or

- Do we need another Outreach program?  (Closed)
- What Outreach program should we add? (Open)

# What if we Brainstormed in Reverse?

- Instead of asking for ideas to solve the problem, look at what would make it worse

- What could we do to make people not want to return?

  - Swarm them at the door

  - Ignore them when the come in, after they leave (no follow-up)

  - Make the service hard to follow and don't explain

  - Don't offer them a bulletin or point out the nursery, restrooms, etc.

  - Call them out during the service

  - Ask LOTS of personal questions

  - Huddle together and talk about them, but not to them

# What About Bigger Things?

What if we want to tackle something more ambitious?

# Problem Definition Worksheet

| Problem Statement | Decision Maker(s) |
|---|---|
| Criteria/Measures of Successful Effort | Decision Maker(s) Care-Abouts |
| Boundaries / Constraints | Time Frame for Resolution |

# What is Your Problem (Statement)?

How do we replace the Mothers' Day Out program we dropped?

How do we fill the void left by Mothers' Day Out?

Can we fill the void in community engagement left by the termination of MDO?

How might we fill the void in community engagement when MDO comes to an end?

# What Makes a Good Problem Statement?

There is quote attributed to Charles Kettering asserting that, "a problem well-stated is a problem half-solved."

Things to strive for in a problem statement:

- Clearly states the problem to solve
- Expresses outcomes, not activities or intermediate steps
- Specific
- Time-bound

# Is There a Right way to Question?

How can we?  How should we?

- Implies judgement
- "**_How_** can we?" often becomes "How **_can_** we?"

Instead try "How Might We?"

- Why this framing?
  - **How**: Assumes a solution
  - **Might**: We can put ideas out that might work or might not work
  - **We**: We are going to do it together

This framing works best with questions that are 'ambitious, yet also achieveable'

# Do you know what success looks like?

Establish measures up front, not retroactively

Avoid moving the goalposts, or more importantly having arguments later about where the goalposts were supposed to be

Ask 'what must be true' for the solution to be a good choice?  Having the answers to those questions will help you lay out conditions for success.

Example:

At its peak, MDO had an average of 8 community families engaged each month and 1-2 new contacts were made each month.  MDO's tuition made it self-supporting.

The replacement should target similar engagement numbers at a minimum.  The program should be self-supporting, or bring additional benefits to justify the cost impact

# Do you understand your limits, constraints?

Counting the Costs

"For which of you, if he wants to build a tower, does not first sit down and count the cost to see if he has enough to complete it?" (Luke 14:28, EHV)

It's just people, time, and money, right?

- Do you have the staff?

- Does it need to be self-supporting or do you have the funding approach?

Don't envision a program that requires 30 staff members, if you only have funding for 5 (or only 5 available)

# Do you Understand the Decision Makers?

Do you know who the decision makers are?

- Officially
- Unofficially

Do you know what makes them tick?

- What is their communication style, preference?
- Can you speak their lingo?
- What are their passions and their 'no-go' topics?

How do you figure them out?

- Prior interactions, projects
- Their Position (President, Property Lead, LWMS Reporter, Pastor, etc.)
- Eventually, you need to 'pitch them' (but at the right time)

# Do you Understand Your Timeline?

Important to keep from spinning your wheels AND from jumping to conclusions/solutions

Are there critical dates on your timeline?
- Is a vendor quote or a contract involved
- Where are you in the congregational budget cycle?
- Do you have a donor who is eager to get started?

What research/analysis do you have to do?
- Do 'knock-out' analyses first
- Are any analysis steps on the 'critical path'

Give yourselves time to go back and reassess as you go, looking with 'new eyes' as you discover more. Not just going over plowed ground, but has new information affected your assumptions or clarified issues raised earlier?

# Do you Understand the Objections, Roadblocks? (Why Can't We, Exactly?)

The person who should be most interested in asking tough questions is the one who is the project's strongest supporter

Two of the most common objections

- We tried this before and it didn't work
- We can't because _____

Take the objections in a different direction

- What did we learn from last time?  If we tried this now, what might be different and how might that change the results?
- We CAN IF _____

# How Might we Apply our Learning? Let's Start a Pregnancy Care Center!

What questions would you ask to frame the problem, 'How might we start a pregnancy care center?'

# Brainstormed: How Might we Start a Pregnancy Care Center?
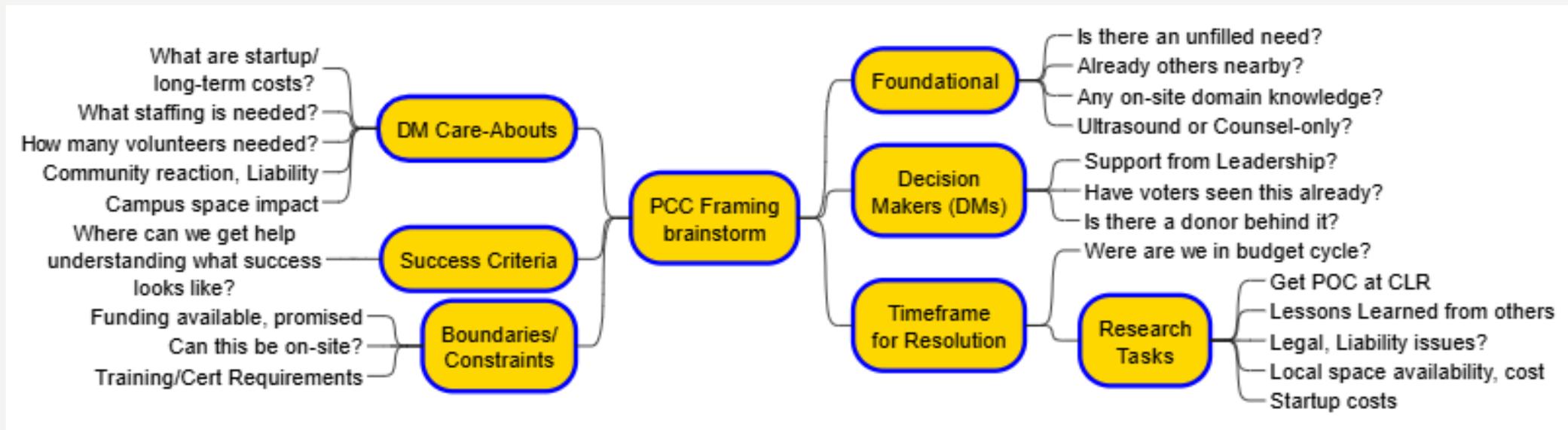
# We are at the End—What's the Payoff?

If you take nothing else away from this session, it should be this:

To lead effectively as you endeavor to solve problems in a godly fashion,
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# Backup

# Resources – Books/Videos/Sites

Problem solving sites

- https://sc.edu/about/offices_and_divisions/organizational_excellence/resources/facilitation/index.php

- https://opentext.wsu.edu/psych105/chapter/7-4-problem-solving/

Books that underpinned this presentation (all excellent!)

Note that I don't endorse all the views in the books/sites listed in the deck, but that is a good thing, you should read things that challenge your assumptions (particularly on secular topics)

- A More Beautiful Question by Warren Berger

- Bulletproof Problem Solving:  The One Skill That Changes Everything  By Charles Conn, Robert McLean

- Winning the Brain Game by Matthew E. May

# Resources – Books/Videos/Sites

For difficult conversations and communications in general

- Compassionate Directness Arianna Huffington (https://www.linkedin.com/learning/compassionate-directness)

- The Leader Lab: Core Skills to Become a Great Manager,Faster By Tania Luna & LeeAnn Renninger, PhD

- LifeLabs Learning (https://www.lifelabslearning.com/)

- I'm Right, You're Wrong, Now What? Break the Imasse and Get What You Need By Xavier Amador, Ph.D

# Resources - Tools

PlantUML (https://plantuml.com/starting)\n(https://www.planttext.com/)

VSCode (https://code.visualstudio.com/)
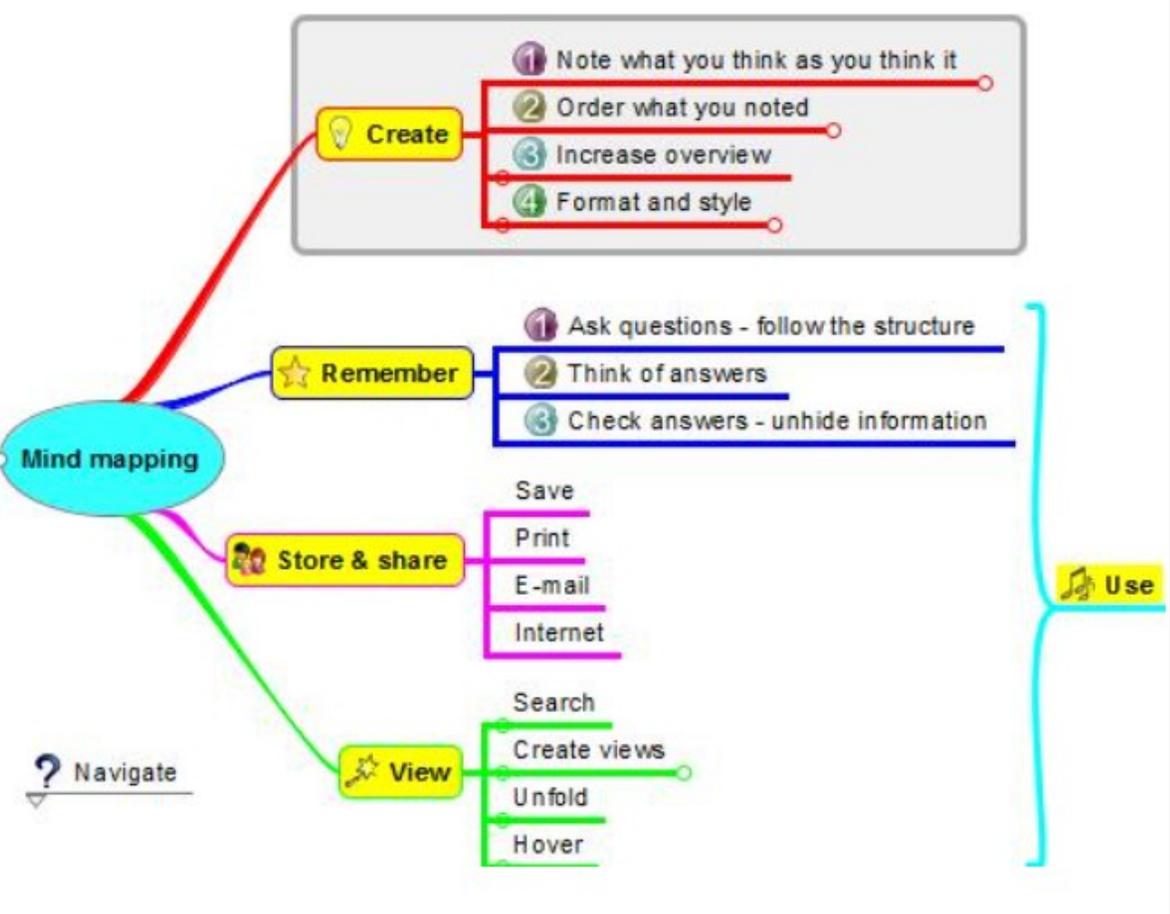
– VSCode has PlantUML extension available (my preferred tool)

Mind Map tools

- Canva

- FreeMind(https://freemind.sourceforge.io/wiki/index.php/Main_Page)

- FreePlane (https://docs.freeplane.org/)

# Mind Map-FreePlane

# Seven Fatal Flaws & Fixes (Brain Game)

| Flaw | Fix |
|---|---|
| Leaping | Multiple Problem Frames (come up w/questions, not solutions) (p. 8) |
| Fixation | Inversion (p. 9) |
| Overthinking (creating problems that weren't there in the first place) (p. 10) | Prototesting |
| Satisficing (p. 11) | Synthesis |
| Downgrading (p. 14) | Jumpstarting |
| Not Invented Here (p. 15) | Proudly Found Elsewhere |
| Self-Censoring | The Impartial Spectator (self-distancing) |

# Cognitive Biases

"The way a particular person understands events, facts, and other people, which is based on their own particular set of beliefs and experiences and may not be reasonable or accurate." (https://dictionary.cambridge.org/dictionary/english/cognitive-bias)

- Authority Bias
- Bandwagon Effect
- Confirmation Bias
- Mere Exposure Effect
- Not Invented Here
- Dozens (perhaps hundreds) of others

Instead of letting fear of biases cripple your efforts, focus on solid methods

# Problem Solving as Christian Leadership

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BRENT NEMMERS (BN.SCD.WELS@GMAIL.COM)

Welcome!  My name is Brent Nemmers.  I am the representative from the South Central District on the Synodical council and I have been working in the aerospace industry, causing and solving problems since 1988.  I have been asked to discuss problem solving and how it fits into Christian leadership.  Right.  Here we go and please remember, you signed up for this.

# Start With the End in Mind—What's the Payoff?

If you take nothing else away from this session, it should be this:

To lead effectively as you endeavor to solve problems in a godly fashion,
*Spend less time assuming and asserting; spend more time asking and assessing.*

My goal for today is to give you tools and techniques that enable you to look at problems differently, approach solutions differently, slow down and examine instead of leaping to conclusions in a hunt for quick & easy solutions

# What is Problem Solving?

"Solving a problem simply means representing it so as to make the solution transparent."—Herbert Simon, Nobel Prize winner

We will go with something a little more practical:

"Problem solving is the act of *defining* the problem, *diagnosing* the problem's root cause, *identifying* and *implementing* a solution, and *sustaining* results."—American Society for Quality (ASQ)

This definition may be helpful if you are on the Herbert Simon level, but for us regular folks we need to something a little more practical (https://asq.org/quality-resources/problem-solving)

We will look at some simple tools and practices that will help us in our congregational problem solving

Because of the limited time we have, I will focus primarily on the first three aspects. The last two are equally important, but we simply don't have time to cover this entire topic in an hour.

 (Herbert Simon, The Sciences of the Artificial (MIT Press, 1968))

Miwaukee-born Nobel prize winner, Father of "Satisficing"—a decision-making strategy or cognitive heuristic that entails searching through the available alternatives until an acceptability threshold is met,

# Biblical Examples of Solving Problems

- Easier to find negative examples (People of Babel, Athaliah, Joseph's brothers, Simeon & Levi, etc.)

- Positive examples exist (Hebrew midwives, Hezekiah), but we don't get a process to follow

- We see problems solved, but we don't get much insight into their problem solving methods, because the Bible is not a handbook on problem solving

- However, we are not left without overarching principles, guidance

This brings us to the next question, 'What is the Venn diagram of Lutheran Leadership and Problem Solving?'
<Bullets 1-3>
If you are hoping for "The 10 hidden problem solving secrets of the Bible", you are about to experience a great disappointment.
 To see some of that biblical guidance let's start by looking at recommendations from problem solving experts and see how they are backed up by Scriptural principles

# Problem Solving Best Practices

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| Know your limitations, constraints | 1 Chronicles 13, 15 (David moving the ark) |
| Understand the problem, don't jump to solutions | Proverbs 18:13, James 1:19 |
| Question/challenge your assumptions | Proverbs 18:17 |

Proverbs 27:17 (EHV) "Iron sharpens iron, and a man sharpens the insight of his friend."
Proverbs 11:14 (EHV) "Without guidance people fall, but in many advisors there is safety."
Proverbs 15:22 "Plans fail without advice, but where there are many advisors they succeed.
"Daniel Kahneman, Amos Tversky – Slow vs Fast Thinking" - Wanting to solve in one email, meeting
Proverbs 18:13 (EHV) "If a person answers before he listens, that is foolishness that brings disgrace."
James 1:19 (EHV) "Remember this, my dear brothers: Let everyone be quick to listen, slow to speak, and slow to become angry."
Proverbs 18:17 (EHV) "The first person to state his case appears to be right.  Then his neighbor comes and cross-examines him."
We will hit a few others as we go
And as we go forward, it is always good to remember that our fallen human natures WILL get in the way—The tools and processes are helpful in reducing the impact of our inherent biases and other sinful tendencies.  But more importantly, of course, we have the one

## What, Why, How Problems

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| What type of program should we start to reach our Community? | Why don't people use our live stream? | How might we start a pregnancy care center (or a prision ministry, etc.)? |
| What will replace our Mothers' Day Out program? | Why is our congregation shrinking & struggling? | How might we address the 'loneliness epidemic'? |

These are the kind of problems we will look at today. There are different tools for each, but many of the tools/techniques we look at will be applicable to more than one type of problem.  You will notice that all of these problems are stated as questions.  That is VERY intentional.  If there is one thing I want to make sure you hang onto, it is that developing the habit of asking better questions, and asking them more often will make you a better problem solver.

# What Makes This so Hard?

West Undershirt Ev. Lutheran Church is remodelling. The choice of flooring in the sanctuary has everyone on edge. Members have suggested a wide range of alternatives. The Property Team says stained concrete is the right answer because of the ease to clean; the Building Committee is pushing for hardwood because it 'honors God with its beauty'; some in the congregation worry about the cost of the project and want an inexpensive approach. Meanwhile, the Pastor is hiding in his office because of it all. How did we get here and how do we get to a decision without adding to the conflict?

How does this become a divisive issue (aside from the usual interpersonal conflicts)?

- No common evaluation criteria
- No clear, defined priorities
- No insight into the rationale, methodology of the decision making

Let's kick things off with a simple question sitting squarely in the middle of a minefield. Simple, but certainly not easy. Minor in the larger scheme of things, but high stakes. <scenario>
There is no perfect answer and there is no magic bullet to solve the problem. There will always be disagreements and personal rivalries. We can't eliminate them, but we can strive to reduce additional pain points, frictions.
1 Peter 3:8 (EHV) Finally, all of you, live in harmony with one another. Show sympathy, brotherly love, compassion, and humility.
2 Corinthians 13:11 Finally, brothers, rejoice. Set things in order. Be encouraged. Agree with one another. Be at peace. And the God of love and peace will be with you.
Psalm 133:1 Look, how good and how pleasant it is when

# What Tool Will Solve This?

Before we look at tools, we need to talk about the common misconception that just adopting a new tool will fix our problems

Assume you are building birdhouses, but they are of very poor quality

- If your birdhouses have sloppy cuts and I give you a pneumatic nail gun, you will just build poor quality birdhouses faster—You need the right tool for the job
- If I give you a mitre saw, but your cuts were good already, you will also build more bad birdhouses in less time—You need to understand your weaknesses first
- If I give you a mitre saw and you don't understand how to use it, you may make worse birdhouses (and lose some fingers in the process)—Understand the tool first
- If your *plans* are flawed, you can spend lots of time and money on tools and you will still end up with bad birdhouses

Click to add Notes

# Weighted Decision Matrix

A weighted decision matrix attempts to quantify how various options stack up against one another by assigning weights to the essential features of each option and rating the against those measures

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How might a tool like this help clarify West Undershirt Ev. Lutheran's selection of flooring for their sanctuary?

- Which is more important in this situation, durability or ease of cleaning?
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- If there is not a clear winner, can we limit the discussion to a smaller set of alternatives?

https://asq.org/quality-resources/decision-matrix
Now back to the situation at hand...what flooring to choose?

# Weighted Matrix—Floor Coverings

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|---|---|---|---|---|---|---|
| **Tile** | Good | Good | Great | Poor | Great | **58** |
| **Low-pile Carpet** | Great | Good | Good | Great | Great | **63** |
| **High-pile Carpet** | Good | Poor | Poor | Good | Poor | **17** |
| **Laminate** | Good | Great | Good | Good | Good | **39** |
| **Hardwood** | Poor | Great | Great | Good | Good | **52** |
| **Stained Concrete** | Great | Good | Great | Poor | Great | **73** |

Let's start with the completed matrix
Don't get hung up on the particulars of each rating in each category

# Weighted Matrix—Behind the Scenes

| Rating | Value | Definition |
|---|---|---|
|  | 0 | No impact |
| Poor | 1 | Inadequate Solution |
| Good | 3 | Adequate Solution |
| Great | 9 | Solid Solution |

| Category | Weight |
|---|---|
| Material/Install Price | 2.5 |
| Acoustics | 1.5 |
| Durability | 3.0 |
| Safety | 1.0 |
| Ease of Cleaning | 2.0 |
|  | 10.0 |

| Material | Material/Install Price | Acoustics | Durability | Safety | Ease of Cleaning | Total |
|---|---|---|---|---|---|---|
| Tile | Good | Good | Great | Poor | Great | 58 |

$$(3*2.5) + (3*1.5) + (9*3.0) + (1*1.0) + (9*2.0) = 58$$

Value could be 0-5; 0, 1, 4, 9 (squares), etc.  But we want good separation to avoid mushy answers.

Weights could sum to 100, if you prefer

Need to narrow down the categories to avoid dilution the vote and getting lots of ties

# What Features do we Pick?

Do up front work/research (how do floor coverings affect acoustics)

What are we looking for in our acoustics (organ vs. praise band)

Might need to break this down into pieces (congregational area vs. stage/platform)

Acoustics rankings could go opposite directions depending on the situation (nursery vs. sanctuary)

Subjective categories like Aesthetics will require careful handling

What makes the Aesthetics category challenging?  How could you address that?

What other categories might be useful?

What factors might drive the choices of categories/weights?

Some amount of research will likely be required to develop ratings, unless there is an easy consensus (safety in this case?).  This is not a quick fix, it requires work, planning

# What might we try to reach consensus?

If we can't agree on the most important features, one approach is *Multivoting*

- The options are listed on a flip chart or paper on the wall
- Each participant receives sticky notes or adhesive dots to cast their votes
  - 1 for every 3-5 candidate categories, or
  - 3 total (1 each for 3, 2, 1 points) to select their top three selections
- Votes should be cast in reverse order of seniority, authority to avoid undue influence
- No discussion until all votes cast
- May require multiple rounds, dropping low vote-getters each time

This method could also be used for other low risk decisions.

Let's take a minute to come up with a list of potential uses for multivoting:

I will give you a couple to prime the pump:  What film to choose for the Youth Group Movie Night; what book is next for the small group; or themes for the mid-week Lenten/Advent meals

# Weighted Matrix—Best Practices

| DO | DON'T |
|---|---|
| Establish weights/categories in advance | Skip important categories |
| Establish weights/categories by consensus | Forget to involve interested parties |
| Explain the methodology clearly | Have mushy or highly subjective categories |
| Do your research on each option | Have too many categories |
| Make your research available | Have equal weights for multiple categories |

**Do NOT put your thumb on the scale
or build after the fact to justify a decision!**

## What Type of Program Should we Start to Reach our Community?

If we need to generate ideas, what techniques do we use?

Brainstorming is the most common approach

What are the rules?

1) Go for quantity
2) Withhold criticism
3) Welcome wild ideas
4) Combine and improve ideas

Often done by having one person write down ideas while the team generates ideas

https://en.wikipedia.org/wiki/Brainstorming

Osborn said that two principles contribute to "ideative efficacy":

(1) Defer judgment; (2) Reach for quantity

# Brainstorming Aid—Constraint Questions

Add/Remove constraints (one at a time) to stimulate ideas

- If you had unlimited funds (but limited volunteers)
- If you had unlimited volunteers (but limited funds)
- If you had to start a program next week
- If you had a year to get a program in place

A More Beautiful Question, circa p.109
https://www.fastcompany.com/3060573/how-brainstorming-questions-not-ideas-sparks-creativity
Another opportunity for an exercise

# Brainstorming

Issues with Brainstorming

- Authority bias (Participants, Recorder)
- Plateauing early

Some best practices from McKinsey & co. to help fight biases and promote creativity:

- Obligation to Dissent
- Perspective Taking
- Constructive Confrontation (What would you have to believe?)
- Multivoting

Bulletproof (pp. 103, 104)

If you think you can get away from having a team by using AI, you should read a recent set of experiments from Northwestern's Kellogg Business School: https://insight.kellogg.northwestern.edu/article/when-it-comes-to-creativity-ai-doesnt-always-have-the-answer

# Brainstorming Alternative— Brainwriting

**6-3-5 Technique**

- Six participants (ideal, 4-7 works), working in silence
- Each receives a sheet of paper with the problem statement written at the top and a grid for recording ideas
- Each participant writes three ideas in a row on the paper with a five minute time limit
- Each then passes their sheet of paper to the person next to them
- Each writes an additional three ideas on the next row within five minutes
  - Can build on prior ideas
  - Can take prior ideas in a different direction
  - Can be unrelated to prior ideas
- The process continues until everyone has put three ideas on each page

This is good when you have strong personalities and introverts working on the same team

Avoids the stalling that can happen with brainstorming

The problem statement is known to the participants in advance, not sprung on them

Later rounds can expand the time limit (but not to exceed ten minutes)
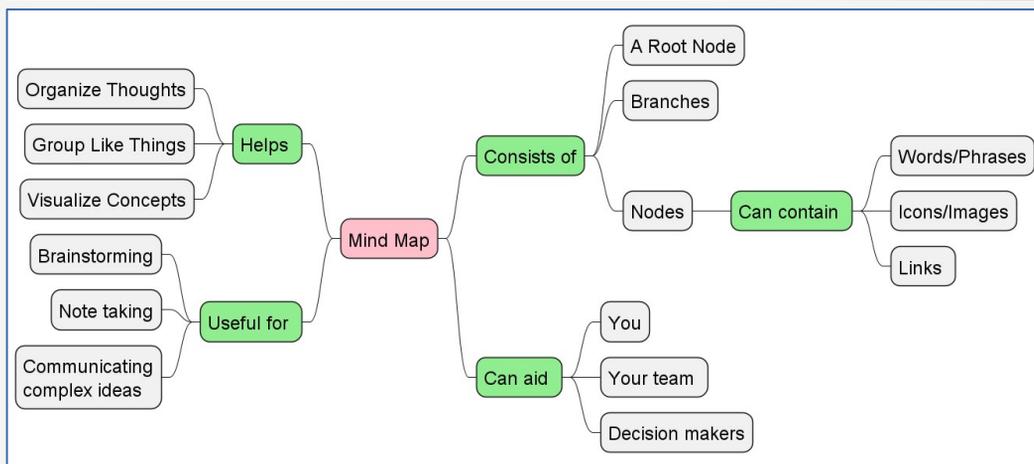
This ideally results in 108 concepts (48, 75, or 147 for 4, 5, or 7 participants), before duplicates are removed

https://en.wikipedia.org/wiki/6-3-5_Brainwriting

So now we have done our brainstorming/writing?  Now what?  Well, we need to take a look at the outputs

Not every idea will be the right one, not every idea will be unique.  A tool that can help us with the next task is a

# Mind Map



This tool is one of my favorites. And I have used a mind map to describe what a mind map is and why you might want to use it. How many of you, when you start thinking about a problem don't just get ideas in a linear fashion, but they jump from one facet to another with no apparent rhyme or reason? The mind map can help corral those ideas and put them in a form that is better for visualizing the interrelationship of your scattershot thoughts.

Grouping/Trimming/Pruning/Focusing/Narrowing—This tool can help narrow the field initially or refine candidates before digging deeper. There are numerous tools that allow you to build these easily. They can also serve as a great communication tool as you work through your problem solving, from initial ideas to proposed solution.

Option: 1 minute exercise to create a mind map about:

# Mind Map for Brainstorming
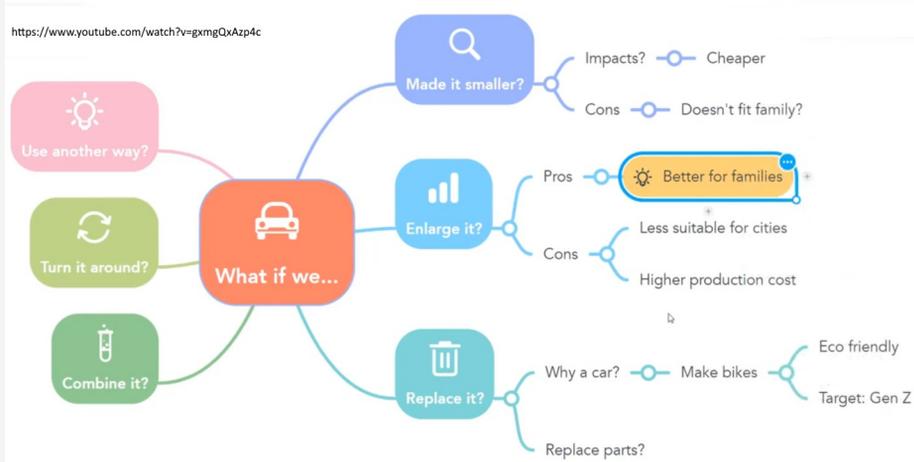


Here is an example I lifted from the web. You can see how the ideas are grouped and yet differentiated. From here you can prune leaves or entire nodes. Alternatively, you might realize that once you group them that a note deserves it own problem solving team.

# Eisenhower Matrix for Prioritization

|  | Urgent | Not Urgent |
|---|---|---|
| **Important** | Do It | Schedule It |
| **Not Important** | Delegate It | Dump It |

The Eisenhower Matrix is a tool for efficiently addressing the tasks brought to you.  Actions are based on whether or not requests are Urgent (*calling for immediate attention*) and/or Important (*deserving serious attention*).

Ranking within the quadrants further refines the priorities

If you are a Productivity Geek, you have probably heard of the Eisenhower Matrix for prioritizing tasks.
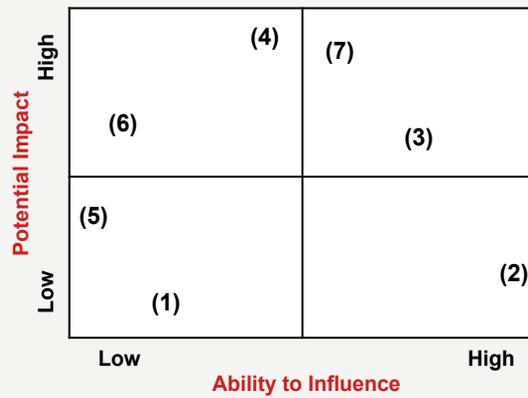
"Urgent." Merriam-Webster.com Dictionary, Merriam-Webster, https://www.merriam-webster.com/dictionary/urgent. Accessed 21 Dec. 2025.

"Important." Merriam-Webster.com Dictionary, Merriam-Webster, https://www.merriam-webster.com/dictionary/important. Accessed 21 Dec. 2025.

# Prioritization Matrix

**Potential Impact**

High

Low

(4)  (7)

(6)

(3)

(5)

(1)

(2)

Low                                    High

**Ability to Influence**

Goals?  Potential Solutions? Issues to Address

Can rank within the quadrants

| ID | Issue, Cause, Solution |
|----|------------------------|
| 1 | lorem ipsum dolor sit amet |
| 2 | consectetur adipiscing elit |
| 3 | sed do eiusmod tempor |
| 4 | incididunt ut labore |
| 5 | et dolore magna |
| 6 | ut enim ad |
| 7 | minim veniam |

# Decision Balance Sheet

| Idea/Proposal | Pros | Cons | Potential Mitigations |
|---|---|---|---|
| Food drives for local food pantry | Low cost; short-term; Meet lots of neighbors; Christ's Love obvious | Requires large number of volunteers | Promote among teens, tweens |
| English conversation club | Cross-cultural opportunities; Low barrier to entry | Could easily drift into controversial issues | Establish clear guardrails |
| English as a Second Language | Cross-cultural opportunities | Requires training, materials, teaching skills | Do we have teachers with experience to help? |
| Grief support group | Helps the hurting | No experience in congregation | Reach out to WELS Parasynodicals |
| Prison ministry | Large field to work | Fear may discourage volunteers | Onsite speaker from Prison Ministries |

With Conversation club and ESL being closely related, is there a way to get the benefits of both and combat the downsides?
These tools can be used in combination, sequence also: Prioritization Matrix to narrow; Decision Balance Sheet to think through the remaining options; Multivote if there is not consensus (especially 3-2-1 ranked approach) if there is wide-spread enthusiasm for several items
Also consider looking at decisions using multiple tools to get different perspectives, which can uncover biases, assumptions, misunderstandings.
(BG, pp102, 103)
Fighting Satisficing: Under what conditions could Solution A actually generate the benefits of Solution B? Can I parse the problem to get the more benefits with fewer drawbacks?

# Why are we Here?
## (Five Whys—Bring out your Inner Toddler)

5-Whys is a simple technique developed at Toyota to uncover the 'root causes' of an issue. It is particularly good for low-risk situations where the team has insight into the issue, there is small number of anticipated causes, and the team is small.

The team states the problem and starts asking why the problem occurs. For each reason the team comes up with, they again ask, 'Why?' until they reach a root cause. The number of why questions will vary, but 5 sets of 'Why?'s are usually sufficient.

This is NOT an Existential Question! This is also not about assigning blame for something. It is about taking an honest look at your issue and drilling down to find out the cause or causes.

Our brains are wired to recognize patterns and leverage that knowledge to save time & effort. That often results in jumping to answers quickly without taking the time to analyze properly, so you may miss issues or may come to completely wrong conclusions.

# Five Whys In Action

| Problem: Our live stream is rarely viewed | | | | | | |
|---|---|---|---|---|---|---|
| Why 1 | Why 2 | Why 3 | Why 4 | Why 5 | Why 6 | Root Cause |
| People not aware stream exists | Link not obvious on website | Website has become cluttered | Webmaster too busy to clean up | Webmaster prefers working solo | | Webmaster not seeking necessary help |
| People stopped watching stream | Stream is not considered reliable | Stream not always active during service | Not all ushers know how to start stream | No training exists for ushers | | Lack of usher training |
| | | Stream sometimes dies during service | Old computer running stream | No line item in budget for new computer | No one responsible for AV budget | No 'owner' of AV equipment |
| | | | Internet connection slow | High speed Internet not available | | Internet Service Limits |

Should not be accusatory; not looking for blame, we are looking for the problems that need solutions, not trying to ride people out of the congregation on a rail.
Complex problems likely have more than one cause, or more than one significant symptom to address. If you won't be able to tackle them all at once, you may need to break it down into multiple parts, addressed by more than one team.
You might also come up against causes that you really can't address or influence, so you can eliminate them from the equation.

# How do we Get More Return Visitors?

Let's stop and ask some other questions first:

- How many first time visitors have we gotten in the last year?
- How many of the 1st time visitors are potential prospects?
- What percentage of the 1st timers have returned?

Why are we asking these questions?

Why are we asking these questions?  Firstly, we are reframing to see if there is an actual problem to solve.  Alternatively, if there is a problem, are we trying to solve the right one?

What if the real problem is that you aren't getting first time visitors who have any real potential to become members?  This is another key tool—Devil's advocacy to test assumptions:  What if visitors aren't currently looking for a church (family visiting, etc.)?  Use throughout the process to weed out assumptions, biases, inconsistencies, missing info

# Opening / Closing Questions

Opening closed questions and closing open questions is another great way to test assumptions, uncover biases

For example:

- How should our congregation address the loneliness epidemic?  (Open)
- Is there a loneliness epidemic in our Community? (Closed)

or

- Do we need another Outreach program?  (Closed)
- What Outreach program should we add? (Open)

As long as we are on the topic of asking questions, here is another technique you may want to use to help you understand what assumptions (whether implicit or explicit) and biases might be involved in your discussion. Potential for an exercise

# What if we Brainstormed in Reverse?

- Instead of asking for ideas to solve the problem, look at what would make it worse

- What could we do to make people not want to return?

  - Swarm them at the door

  - Ignore them when the come in, after they leave (no follow-up)

  - Make the service hard to follow and don't explain

  - Don't offer them a bulletin or point out the nursery, restrooms, etc.

  - Call them out during the service

  - Ask LOTS of personal questions

  - Huddle together and talk about them, but not to them

But let's get back to the question of getting more return visitors. Here is a very negative approach, but it might be helpful occasionally

# What About Bigger Things?

What if we want to tackle something more ambitious?

# Problem Definition Worksheet

| | |
|---|---|
| Problem Statement | Decision Maker(s) |
| Criteria/Measures of Successful Effort | Decision Maker(s) Care-Abouts |
| Boundaries / Constraints | Time Frame for Resolution |

Let's see what it takes to move onto a larger problem.  The ones so far have been relatively small in scope.  To tackle larger problems, you need to look at multiple facets.  Here is one potential worksheet to help define the problem in more detail.  Let's talk about the various pieces here.

An important notes: Document your decisions and your process.  Keep it updated.  Give it to a details person.  You will want it later and if you don't have it, recreating it may start looking like you backed into a solution.Don't assume your audience knows what you do, or that you know what they are thinking, or that you see things the same way (esp. important @ start/end of process)

# What is Your Problem (Statement)?

How do we replace the Mothers' Day Out program we dropped?

How do we fill the void left by Mothers' Day Out?

Can we fill the void in community engagement left by the termination of MDO?

How might we fill the void in community engagement when MDO comes to an end?

Here are some potential problem statements.  What do like/dislike about them?
1) Somewhat accusatory, defeatist
2) Vague, what void?  Why are we concerned that MDO ends?
3) Negative, not hopeful, but gives more reason for filling the void, sounds like you are playing catch-up.  Are we starting to look for solutions AFTER MDO ends?

# What Makes a Good Problem Statement?

There is quote attributed to Charles Kettering asserting that, "a problem well-stated is a problem half-solved."

Things to strive for in a problem statement:

- Clearly states the problem to solve
- Expresses outcomes, not activities or intermediate steps
- Specific
- Time-bound

Kettering was an inventor who held 186 patents.

Bulletproof problem solving, circa p. 33

# Is There a Right way to Question?

How can we?  How should we?

- – Implies judgement
- – "*__How__* can we?" often becomes "How *__can__* we?"

Instead try "How Might We?"

- – Why this framing?
    - • **How**: Assumes a solution
    - • **Might**: We can put ideas out that might work or might not work
    - • **We**: We are going to do it together

This framing works best with questions that are 'ambitious, yet also achieveable'

Perhaps not the RIght way, but often a Better way (A More Beautiful Question circa p. 127)

# Do you know what success looks like?

Establish measures up front, not retroactively

Avoid moving the goalposts, or more importantly having arguments later about where the goalposts were supposed to be

Ask 'what must be true' for the solution to be a good choice?  Having the answers to those questions will help you lay out conditions for success.

Example:

At its peak, MDO had an average of 8 community families engaged each month and 1-2 new contacts were made each month.  MDO's tuition made it self-supporting.

The replacement should target similar engagement numbers at a minimum.  The program should be self-supporting, or bring additional benefits to justify the cost impact

Important to help reduce lingering conflicts due to differing expectations, 'histories'—we don't want to cultivate simmering resentments where 30 years in people are still telling their version of how Pastor X or Family Y 'got their way' – also an important reason to document as you go :)
What must be true? (Winning the Brain Game, circa p.81)
It goes without saying the monitoring, adjusting does not end when the end project gets launched, it is on-going.
Make sure you consider that in your project description

## Do you understand your limits, constraints?

Counting the Costs

"For which of you, if he wants to build a tower, does not first sit down and count the cost to see if he has enough to complete it?" (Luke 14:28, EHV)

It's just people, time, and money, right?

- Do you have the staff?
- Does it need to be self-supporting or do you have the funding approach?

Don't envision a program that requires 30 staff members, if you only have funding for 5 (or only 5 available)

When we are defining our problem, it is very important to understand what might keep us from achieving our goals, hitting our targets. These can endanger our efforts.

David moving the ark—Negative example—Didn't understand the groundrules and the stakeholders, players (1 Chronicles 13, 15);

That being said, to open up more possible solutions, you could relax each constraint and see if the solution set opens up enough to be worth the extra work, time, and investment required. (Bulletproof Problem Solving, circa p. 72) (p33,40,73)

# Do you Understand the Decision Makers?

Do you know who the decision makers are?
- Officially
- Unofficially

Do you know what makes them tick?
- What is their communication style, preference?
- Can you speak their lingo?
- What are their passions and their 'no-go' topics?

How do you figure them out?
- Prior interactions, projects
- Their Position (President, Property Lead, LWMS Reporter, Pastor, etc.)
- Eventually, you need to 'pitch them' (but at the right time)

You to think through a communication plan, not one-size fits all
Are they *GASP* engineers?  Are they creatives?  Head or heart, numbers or emotions/blue sky
Don't pitch your idea half-baked, but you can't wait too long either.
What if a multi-congregational project is envisioned?
How does that change the approach, timelines, communication?

# Do you Understand Your Timeline?

Important to keep from spinning your wheels AND from jumping to conclusions/solutions

Are there critical dates on your timeline?
- Is a vendor quote or a contract involved
- Where are you in the congregational budget cycle?
- Do you have a donor who is eager to get started?

What research/analysis do you have to do?
- Do 'knock-out' analyses first
- Are any analysis steps on the 'critical path'

Give yourselves time to go back and reassess as you go, looking with 'new eyes' as you discover more. Not just going over plowed ground, but has new information affected your assumptions or clarified issues raised earlier?

What research do you need to do?
Don't be afraid to reassess as you learn more—very important distinction. Not just spinning (analysis paralysis)
Determine what reseearch do you need, what questions need to be answered, not just an exercise or a fishing expedition—time limits, goals for the research. If there are pieces of the research that could completely change the direction (or show you need to change directions), d those FIRST!

## Do you Understand the Objections, Roadblocks? (Why Can't We, Exactly?)

The person who should be most interested in asking tough questions is the one who is the project's strongest supporter

Two of the most common objections

- We tried this before and it didn't work
- We can't because _____

Take the objections in a different direction

- What did we learn from last time? If we tried this now, what might be different and how might that change the results?
- We CAN IF _____

* Honest questioning, not strawman arguments. That is a great way to destroy trust, credibility, and ultimately momentum, support. (Devil's Advocate to test assumptions, check biases)

 * If you aren't learning from your failures, you are wasting opportunites to grow in your problem solving.

(Winning the Brain Game, circa pp 76, 121)

Charles Kettering: "The only time you don't want to fail is the last time you try something.  One fails toward success."

 * 'Can-If' gives you a positive construct to help defuse the objection.  You can keep going with the can-if approach, if you need to develop the solution further to answer the objection

 * (A More Beautiful Question circa p. 147)  Some ideas may have failed before because of bad timing or bad

# How Might we Apply our Learning?
## Let's Start a Pregnancy Care Center!

What questions would you ask to frame the problem, 'How might we start a pregnancy care center?'

https://www.fastcompany.com/3060573/how-brainstorming-questions-not-ideas-sparks-creativity
 * Go into this w/o detailed scenario, so you have not made up your mind about all the answers already :)
If you HAVE done this before, let us work this a little while before you straighten us out like a piece of wire  A

# Brainstormed: How Might we Start a Pregnancy Care Center?
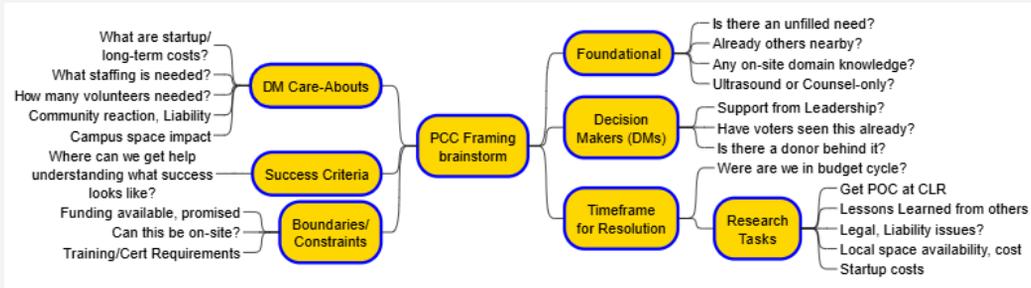


Here is what the result of an initial brainstorming session might look like.

# We are at the End—What's the Payoff?

If you take nothing else away from this session, it should be this:

To lead effectively as you endeavor to solve problems in a godly fashion,
***Spend less time assuming and asserting; spend more time asking and assessing.***

# Backup

Click to add Notes

# Resources – Books/Videos/Sites

Problem solving sites

- https://sc.edu/about/offices_and_divisions/organizational_excellence/resources/facilitation/index.php
- https://opentext.wsu.edu/psych105/chapter/7-4-problem-solving/

Books that underpinned this presentation (all excellent!)

Note that I don't endorse all the views in the books/sites listed in the deck, but that is a good thing, you should read things that challenge your assumptions (particularly on secular topics)

- A More Beautiful Question by Warren Berger
- Bulletproof Problem Solving: The One Skill That Changes Everything By Charles Conn, Robert McLean
- Winning the Brain Game by Matthew E. May

Click to add Notes

# Resources – Books/Videos/Sites

For difficult conversations and communications in general

- Compassionate Directness Arianna Huffington (https://www.linkedin.com/learning/compassionate-directness)

- The Leader Lab: Core Skills to Become a Great Manager,Faster By Tania Luna & LeeAnn Renninger, PhD

- LifeLabs Learning (https://www.lifelabslearning.com/)

- I'm Right, You're Wrong, Now What? Break the Imasse and Get What You Need By Xavier Amador, Ph.D

Click to add Notes

# Resources - Tools

PlantUML (https://plantuml.com/starting)\n(https://www.planttext.com/)

VSCode (https://code.visualstudio.com/)

  – VSCode has PlantUML extension available (my preferred tool)

Mind Map tools

- Canva

- FreeMind(https://freemind.sourceforge.io/wiki/index.php/Main_Page)

- FreePlane (https://docs.freeplane.org/)
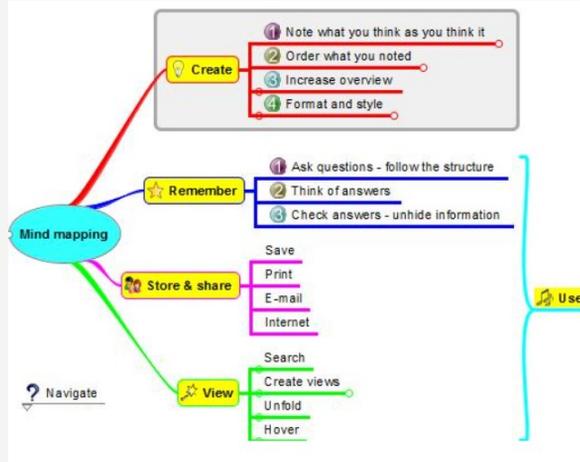
# Mind Map-FreePlane



FreePlane is a more full-featured mindmap tool

## Seven Fatal Flaws & Fixes (Brain Game)

| Flaw | Fix |
|---|---|
| Leaping | Multiple Problem Frames (come up w/questions, not solutions) (p. 8) |
| Fixation | Inversion (p. 9) |
| Overthinking (creating problems that weren't there in the first place) (p. 10) | Prototesting |
| Satisficing (p. 11) | Synthesis |
| Downgrading (p. 14) | Jumpstarting |
| Not Invented Here (p. 15) | Proudly Found Elsewhere |
| Self-Censoring | The Impartial Spectator (self-distancing) |

Reframing is the singular response to the question of how to respond to our mantra, which as you may recall is: what appears to be the problem, isn't; what appears to be the solution, isn't; what appears to be impossible, isn't.

# Cognitive Biases

"The way a particular person understands events, facts, and other people, which is based on their own particular set of beliefs and experiences and may not be reasonable or accurate." (https://dictionary.cambridge.org/dictionary/english/cognitive-bias)

- Authority Bias
- Bandwagon Effect
- Confirmation Bias
- Mere Exposure Effect
- Not Invented Here
- Dozens (perhaps hundreds) of others

Instead of letting fear of biases cripple your efforts, focus on solid methods

Facinating topic about why we think and act the way we do. It is also a massive rabbit hole that you can spend hours investigating and even more time worrying about. Because there is also the G.I. Joe Effect, where you think that knowing about cognitive biases is sufficient to overcome it (https://en.wikipedia.org/wiki/List_of_cognitive_biases), we won't spend time discussing them. Instead, we will look at solid processes, practices that will help us deal with them without getting into the psychology and second-guessing all of our decisions. <See p 162 of problem solving>
<p.100ff of Problem solving has table of biases and how to deal with them>