



**BETTER COMMUNICATION:
*FINDING WAYS TO CONNECT AND BE HEARD***

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STORY



DISCLOSURES

Chair, MPLA



OUTLINE

Summer School 2016 refresher

Communication competency

Three successful models

- Model
- Exercise

Wrap-up / Discussion



BETTER COMMUNICATION:

2016 Summer School Refresher





June 12-16 • Westfields Marriott Conference Center • Chantilly, VA

Leadership in Communication

Oral, Visual, Written, & Electronic

Ehsan Samei, Amy Cosler, & Dan Pavord



ESSENCE OF COMMUNICATION

Requirement of and expectation for human interaction

How you say it is as important as what you say

Foundational human challenge of biblical roots



MODELS OF COMMUNICATION

Information exchange vs. information casting

Vehicle for communion: belonging/bonding

Process of emphasis (reduction): what the communicator considers important:

- Recasting, prioritizing, interpreting



KEY PRINCIPLES FOR EXCELLENCE

Intentionality

- The audience needs our communication, what we communicate is in our control

Judicious use of words

Learning to listen (exchange) – 2 way communication

Concern as much about exchange as about connecting



KEY PRINCIPLES FOR EXCELLENCE

Communication beyond words:

- Non-verbal cues and body language
- Unconscious/sub-conscious biases
- Prejudice

Audience awareness, mindfulness of expectations

- ILIB: Information-loaded / bandwidth-limited
- Give audience what it seeks

Narrative strategy

Samei, E., Cosler, A., and Pavord, D. (2016). *Leadership in Communication*. AAPM Summer School 2016, Medical physics leadership academy.



BETTER COMMUNICATION:

Communication Competency



The Top 10 Leadership Competencies, Grouped Into Five Themes

When 195 global leaders were asked to rate 74 qualities, these rose to the top.



SOURCE SUNNIE GILES

© HBR.ORG

Ref: Giles, S. (2016). *The most important leadership competencies, according to leaders around the world*. Harvard business review.



GREAT LEADERS...

Value transparency & tell the truth

Increase communication during times of change

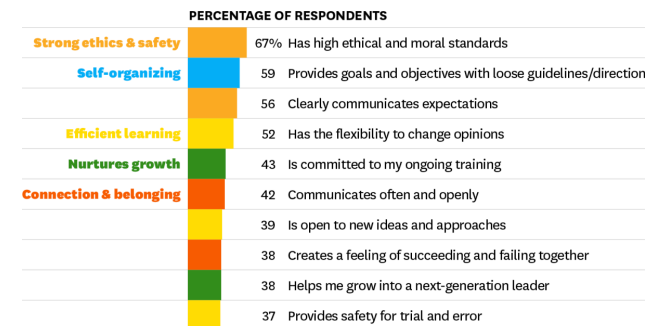
Listen more than they talk

Stay connected to lowest levels of the organization

Communicate goals and tasks clearly

The Top 10 Leadership Competencies, Grouped Into Five Themes

When 195 global leaders were asked to rate 74 qualities, these rose to the top.



SOURCE: SUNNIE GILES

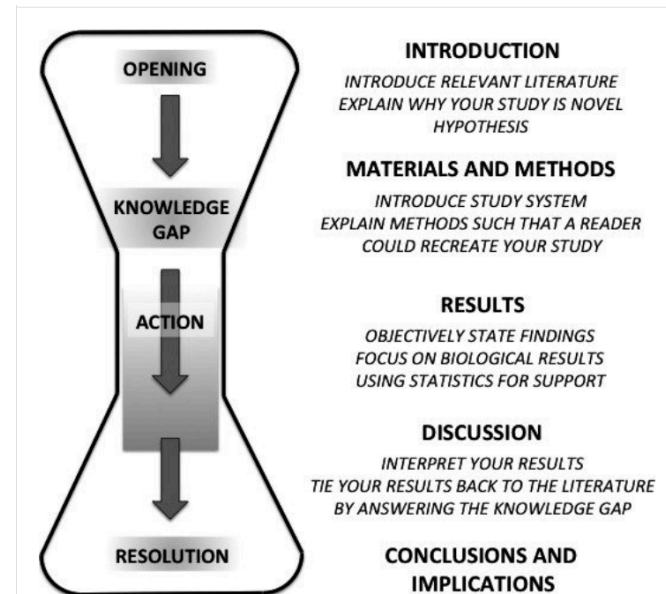


Ref: Brownlee, D. (2019). *Five communications best practices of great leaders*

Ref: Giles, S. (2016). *The most important leadership competencies, according to leaders around the world*. Harvard business review.

FUNNEL APPROACH

Science
 Sales, customer journey
 Marketing
 Strategy



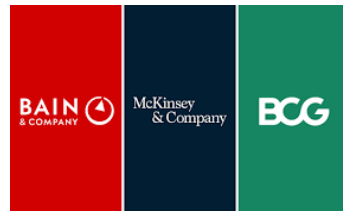
Framing a scientific paper. The structure of a paper mirrors that of an hourglass, opening broadly and narrowing to the specific question, hypothesis, methods, and results of the study. Effective papers widen again in the discussion and conclusion, connecting the study back to the existing literature and explaining how the current study contributes to the field.

Ref: Turbek, S. P., Chock, T. M., Donahue, K., Havrilla, C. A., Oliverio, A. M., Polutchko, S. K., & Amercati, L. (2016). *Scientific Writing Made Easy: A Guide to Undergraduate Writing in the Biological Sciences*. *The Bulletin of the Ecological Society of America*, 97(4), 417-426.



THREE MODELS

Consulting



The pyramid principle

Advertising



The golden circle

Filmmaking



Story telling / narrative structure



BETTER COMMUNICATION:

Consulting and The Pyramid Principle

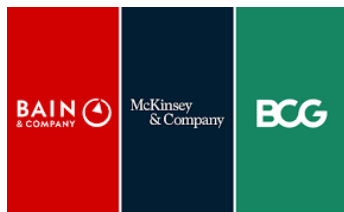


CONSULTING FIRMS

Top Three

McKinsey, Bain, BCG

- Focus on strategy (C-suite)
- Stay generalist
- Smaller firms



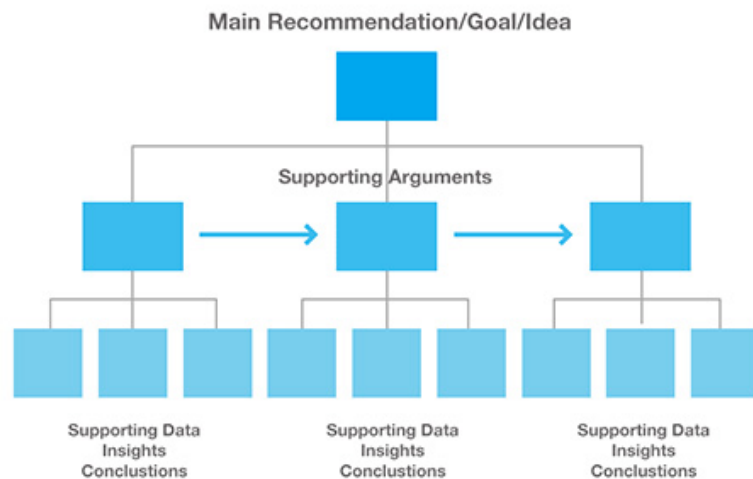
Big Four

PWC, Deloitte, KPMG, & EY

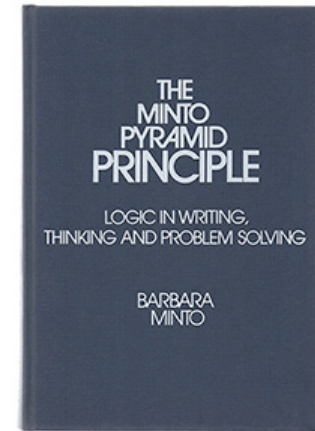
- Focus on implementation
- Specialize in industries



THE PYRAMID PRINCIPLE



Barbara Minto
MBA from HBS



“The pyramid is a tool to help you find out what you think.”



McKinsey Alumni Center. (May 2018). Barbara Minto: “MECE: I invented it, so I get to say how to pronounce it.” *McKinsey Alumni News*.

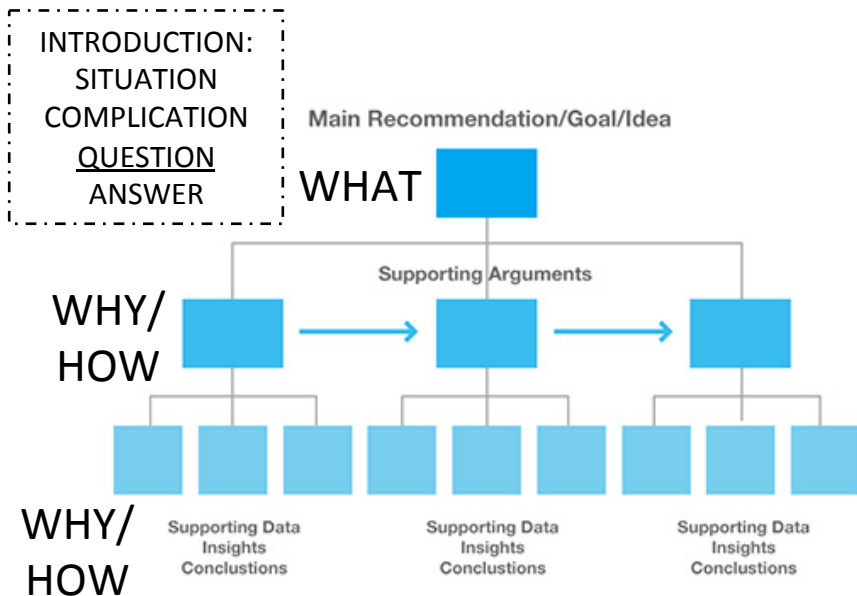
THE PYRAMID PRINCIPLE

Three logical rules to obey:

The point above is derived from those below (summary)

-> Requires ideas in the grouping are logically the same, and in logical order

-> The groups of ideas are **MECE** (*m*utually *e*xclusive of each other, *c*ollectively *e*xhaustive in terms of the whole)



INTRODUCTION

Situation

Restaurant is not profitable

Complication

Threatened to close

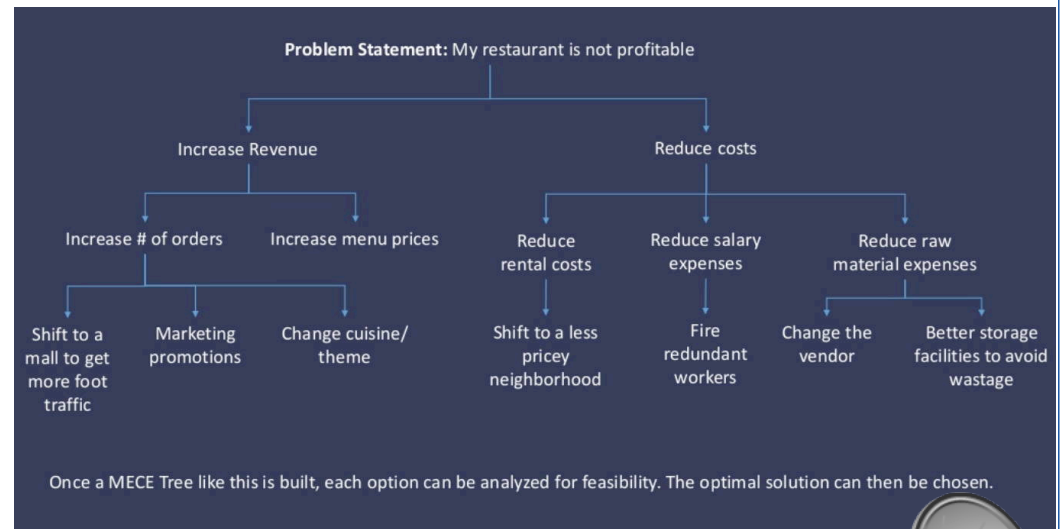
Question

How to make restaurant profitable?

Answer

Reduce rent costs by shifting to a less pricey neighborhood

EXAMPLE



Issue tree. Credit: Sideshare: CodeGround.

EXERCISE (20 MIN)

Scenario:

You have been asked to prepare to comment on the overtime or long working hours for staff.

You are now in a meeting with other hospital / facility administrative & departmental leadership.

Use the pyramid principle approach to give your answer.



THE PYRAMID PRINCIPLE

Start with the answer first = main recommendation / goal / idea

Group and summarize your supporting arguments (to main recommendation / goal / idea) in logical order

Logically order your supporting data / insights / conclusions (for each of the supporting arguments)

“Rules to obey => concept required groups of ideas to be MECE – divide pieces that were mutually exclusive of each other and collectively exhaustive in terms of the whole.”

McKinsey Alumni Center. (May 2018). Barbara Minto: “MECE: I invented it, so I get to say how to pronounce it.” *McKinsey Alumni News*.



BETTER COMMUNICATION:

A Little More Background



A SIMPLE PUZZLE

A bat and ball cost \$1.10.

The bat costs one dollar more than the ball.

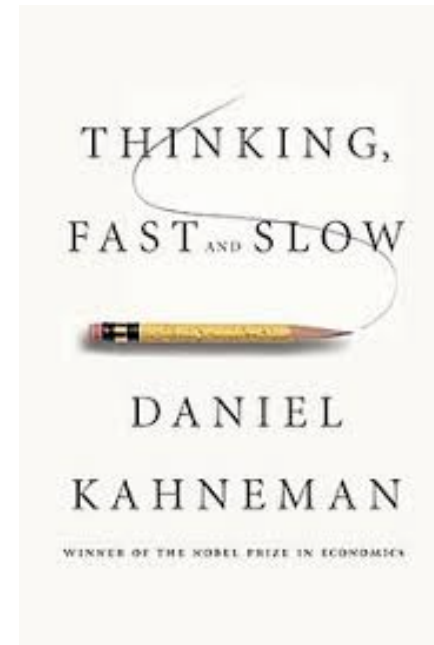
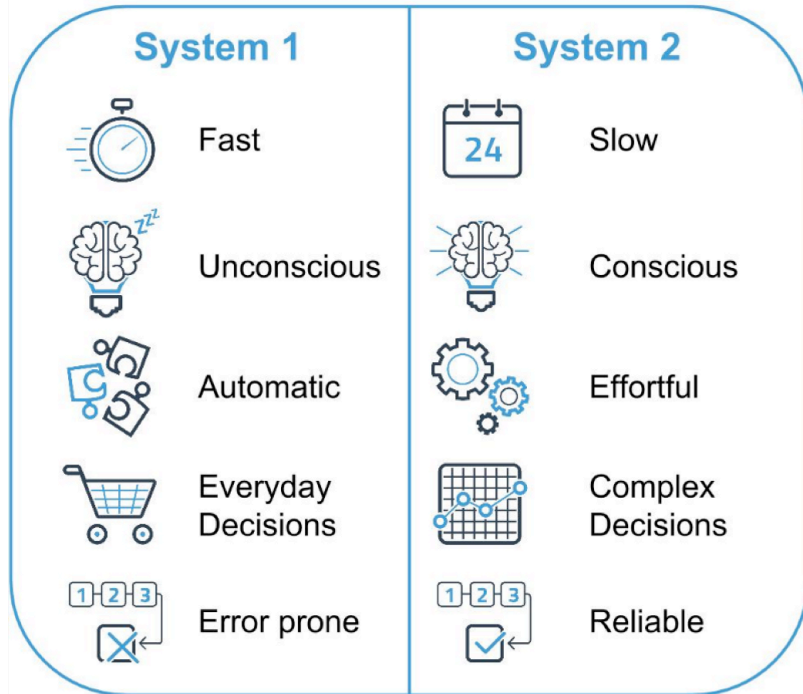
How much does the ball cost?



Kahneman, D. (2011). *Thinking, fast and slow*. Macmillan.



HUMAN DECISION MAKING



Kahneman, D. (2011). Thinking, fast and slow. Macmillan.

HUMAN DECISION MAKING

Experiential system
(System 1)

Fast; intuitive

- Emotion-related associations
- Intuitions
- “gut instincts”

Analytic system (System 2)

Thinking slow

- Conscious, deliberate cognitive processes
- Logical, reason-oriented thinking

Bechara, A., Damasio, H., Tranel, D., & Damasio, A. R. (1997). Deciding advantageously before knowing the advantageous strategy.

275(5304), 1293-1295.



LEADERSHIP DECISION MAKING

“In complex business decision environments, the use of *head*, *heart*, and *gut* in decision styles lead to wiser and more effective decisions.” (Dolitch, Cairo and Rhinesmith, 2006)



Soosalu, G., Henwood, S., & Deo, A. (2019). Head, heart, and gut in decision making: development of a multiple brain questionnaire. SAGE Open, 9(1), 2158244.

https://0701.static.prezi.com/preview/v2/myy2y7iiqmzqlv6dtmyvqeedjd6jc3sachvcdoaizecfr3dnitcq_3_0.png

LEADERSHIP DECISION MAKING

“Solutions to technical problems lie in the head and solving them requires intellect and logic.

Solutions to adaptive problems lie in the stomach and the heart and rely on changing people’s beliefs, habits, ways of working or ways of life.” (Heifetz and Linsky, 2004)

Soosalu, G., Henwood, S., & Deo, A. (2019). Head, heart, and gut in decision making: development of a multiple brain questionnaire. SAGE Open, 9(1), 2158244.

https://0701.static.prezi.com/preview/v2/myy2y7iiqmzqlv6dtmyvqeedjd6jc3sachvcdoaizecfr3dnitcq_3_0.png



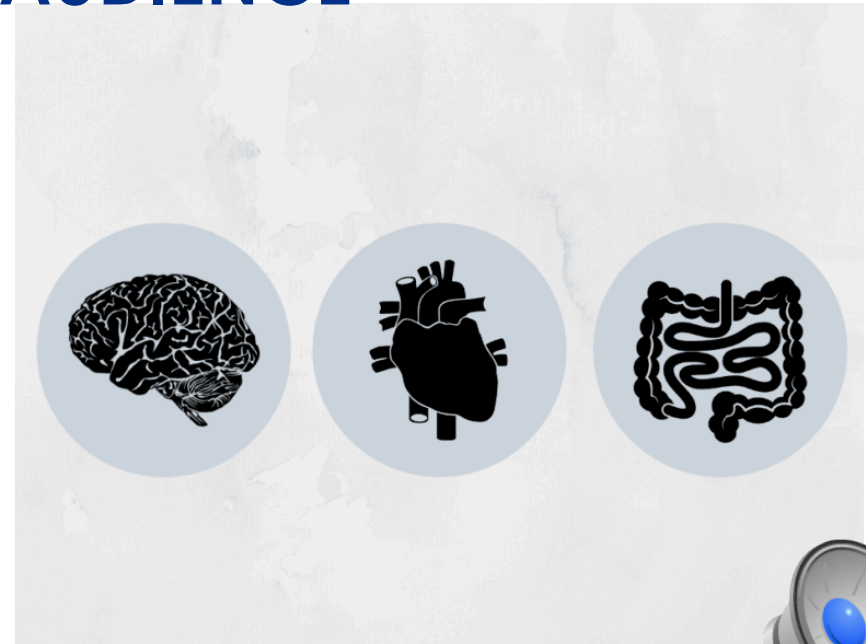
FOUR ORGANS THEORY OF CONNECTING WITH THE MASS AUDIENCE

Head (reason)

Heart (passion)

Gut (humor, spontaneity,
intuition)

Loins (sex)



Olson, R. (2018). *Don't be such a scientist: talking substance in an age of style*. I.

<https://d1v7xaam6wp566.cloudfront.net/wp-content/uploads/2019/11/19224348/Copy-of-Add-heading-16-845x634.png>



Jolie, A. (2013) *I had a double mastectomy to reduce my breast cancer risk.* The
Davis, Chastidee (2017). *Patrick Swayze's legacy Lives on to fight pancreatic cancer.*
https://www.reddit.com/r/calvinandhobbes/comments/9kzn67/i_hate_it_when_i_cant_gird_my_loins_with_funny/



BETTER COMMUNICATION:

Advertising and the Golden Circle



(GOOD) ADVERTISING



Moorman, C. (2018). *Why Apple is Still a Great Marketer and What You Can Learn*. Forbes.com; <https://www.apple.com>

WARBY PARKER

Buying eyewear should leave you happy and good-looking, with money in your pocket. Glasses, sunglasses, and contacts—we've got your eyes covered.

<https://www.warby.com>



OUR STORY

Everything we do can be summed up with one word: go. Our products are designed to make it easier than ever to go wherever you want, with the one companion you always want by your side.

<https://www.kurgo.com/>



THE GOLDEN CIRCLE

WHY (few companies)

Know why you do what you

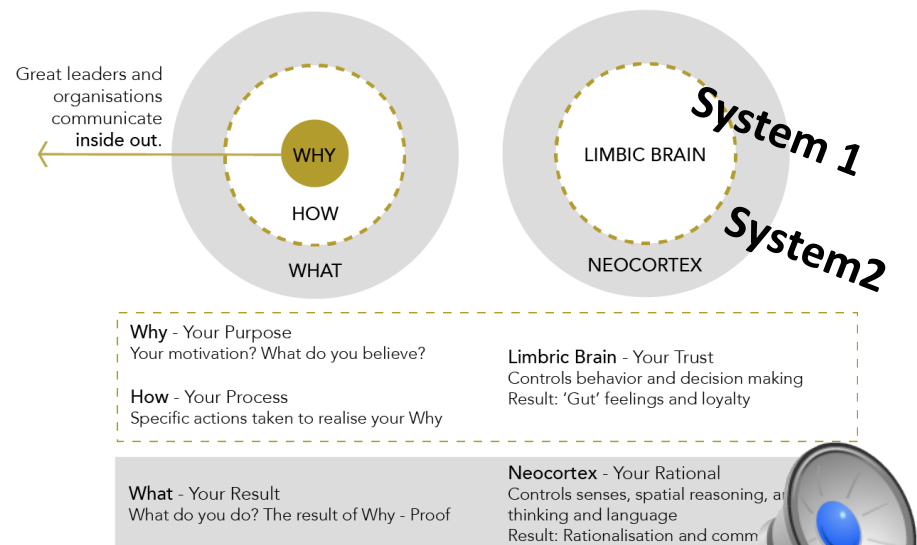
HOW (some companies)

Things that make them special /
set them apart

WHAT (all companies)

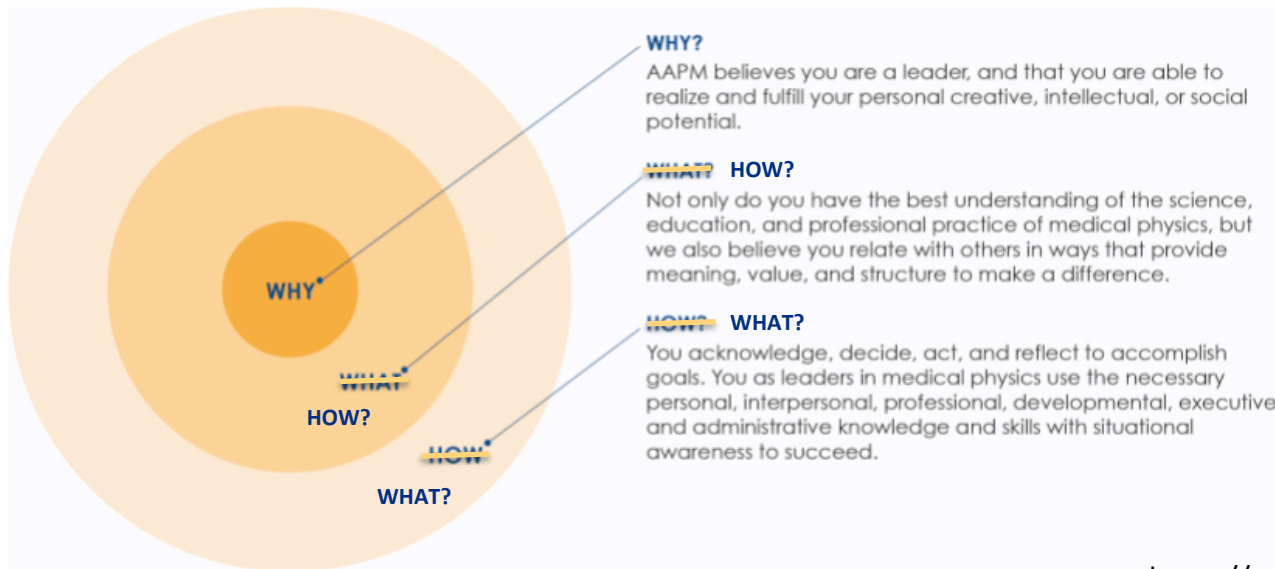
The products they sell or services
have to offer

The Golden Circle + Human Brain



Sinek, S. (2009). *Start with why: How great leaders inspire everyone to take action*. ...
 Villis, A. (2017). *First Wealth's "Why"Day - the Golden Circle*. Medium.

MPLA'S GOLDEN CIRCLE



EXERCISE (20 MIN)

Scenario:

Think of a situation where you need to persuade another or group to change a practice or behavior in your clinical environment.

Use the golden circle approach to sell your idea, starting with why, preferably using either the heart or gut (and not head) organs theory of connecting with others.



BETTER COMMUNICATION:

Filmmaking and the Narrative Structure



FILMMAKING

"An Inconvenient Truth" is based partly on a presentation by Al Gore



(Eric Lee/Paramount Classics)

Davis Guggenheim's 2006 Oscar-winning documentary about the dangers of climate change (A.O. Scott)



<https://www.nytimes.com/2006/05/24/movies/24trut.html>

FILMMAKING

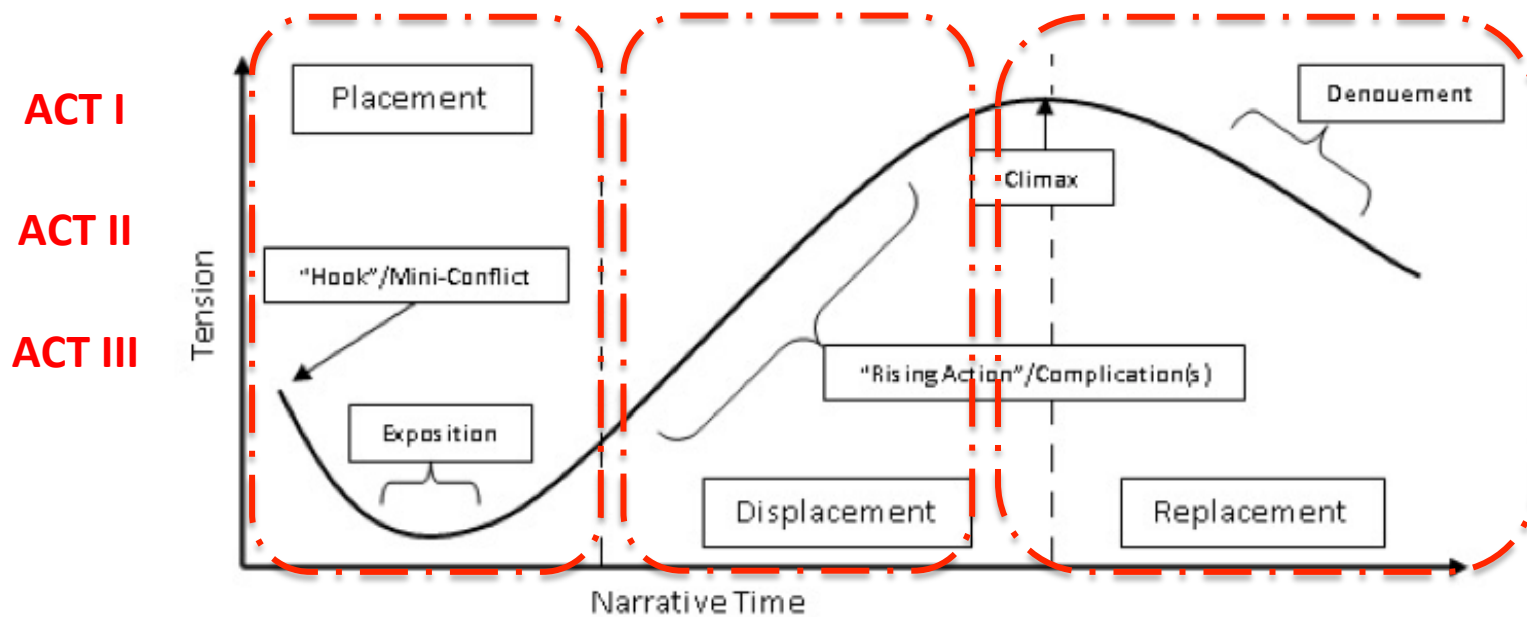


Morten Parker's 1950
Oscar-nominated short
documentary about
genesis of cancerous cells
and state of research into
the fight against cancer
(NFB Canada)



<https://www.nfb.ca/film/fight-science-against-cancer/>

STORYTELLING OR NARRATIVE STRUCTURE



Narrative Time

Olson, R. (2018). *Don't be such a scientist: talking substance in an age of style*. Is.

Duarte.com Communication skills: don't be so cerebral.



SCRIPT PITCH

First act – description of the system in which you are working, end with the inciting incident, which is the formulation of a question

Second act – explore possible answers to the question (hypothesis), end of 2nd act bring to a climax when you reveal the key piece of information that will answer the question.

Third act – pull the info together to answer the question, then you wrap up with an ending that releases all the tension and leaves the viewer with a feeling of satisfaction.

Olson, R. (2018). *Don't be such a scientist: talking substance in an age of style*. Island Press.



SCRIPT PITCH

I study a starfish on the CA coast [first act] - the only species [sets tension] that spawns in the dead of winter. I thought it might be due to predators of the eggs being less common at that time of year, then I thought it was due to the best timing for the spring algae bloom [second act], but now it looks like it probably has something to do with a seasonal migration [relieve tension] of the starfish, which is what I now study [third act wrap-up] – the way that spawning season might be related to adult movements of starfish.



Olson, R. (2018). *Don't be such a scientist: talking substance in an age of style*. Island Press.

HIGH CONCEPT

High concept: single story in a single sentence or phrase

I study the one species of starfish that spawns in the dead of winter instead of during the vibrant spring season.



MPLA'S ELEVATOR PITCH

Medical Physics Leadership Academy (MPLA) is a leadership development program - the only leadership knowledge and skills program specifically designed and oriented for medical physicists.

We are not always perceived as leaders, not because we focus on the science, educational and professional practice of medical physics, but because we can lack the specific knowledge and skills necessary to act in leadership capacities.

We need to develop personal, interpersonal, professional, developmental, executive, and administrative skills. This is what AAPM's MPLA offers, and enhances the way that medical physicists interact with others as we do our work.



MPLA'S HIGH CONCEPT

The AAPM Medical Physics Leadership Academy (MPLA) is the only medical physicist-oriented leadership program to develop necessary business and leadership knowledge and skills as we do our work instead of focusing only on the technical aspects of our practice of medical physics.



EXERCISE (10 MIN)

Scenario:

Think of a clinical or research project that you recently worked on or are in the midst of completing.

Use the narrative structure of three acts, including creating tension, to create an elevator pitch.



EXERCISE (10+ MIN)

Scenario:

Think of the value of a medical physicist to your department / hospital / facility.

Use the narrative structure of three acts, including creating tension, to create an elevator pitch.



MPLA COMMUNICATION CONTEST

Write an elevator pitch to spotlight the role and value of medical physicists to your department / hospital / facility administrators

Prizes

1st place: \$500

2nd place: \$300

3rd place: \$200

Email submissions to 2020.mplawg@aapm.org

Only one submission per member is permitted

Winners will be selected by MPLA

Submission deadline is Fri, May 15, 2020



THREE MODELS

The pyramid principle

What – Why – How

The golden circle

Why – How – What

Story telling / narrative
structure

Three Acts to tell
What – Why – How



WRAP-UP / DISCUSSION

What worked?

What didn't?

What is challenging?



WRAP-UP / DISCUSSION

Communicating science is both substance (what) and style (how)

Share what is interesting and compelling in a way that interests them, where they want to learn more.

Non-scientists focus on boredom, not accuracy.

Reminder: don't be long-winded; use concise wording

Also positivity: improv techniques using "yes, and..." even if not 100% accurate in that moment; others hear agreement and details may be sorted later



**A Summary of Audience Comments during the MPLA Communication Workshop
Saturday, April 4th, 8:00-10:00
AAPM Virtual Spring Clinical Meeting**

Exercise 1

Scenario:

You have been asked to prepare to comment on the overtime or long working hours for staff. You are now in a meeting with other hospital/facility administrative & departmental leadership. Use the pyramid principle approach to give your answer.

Comments from the Audience:

Increase work efficiency in the Rad Onc workflow. This is based on my 'supported findings' from the department where there are a lot of bottlenecks in staff waiting for someone else to finish something so they can get started on their work. Tasks such as waiting for physicians to contour in a timely manner. Communication within the workflow is too slow. We can create some automated processes to help notify staff when things are ready in real time instead of waiting and relying on someone to verbally tell him/her or write an email. Can also improve methods in which a physician can keep track of their worklist (images to approve, plans to contour for, plans to approve, etc.). We could also create documents that give more information upfront so the team knows what to do and expect from the moment the patient arrives.

Situation: TomoTherapy machine has been retired. Patient load on other machines has increased to the point that treatment outside of normal hours is necessary.

Overtime

1. Too many tasks
 - a. Patient load
 - b. New techniques/commissioning requests
2. Inefficiencies
 - a. Barriers to execution
 - b. Hardware problems.
 - c. Software interoperability issues.
 - d. Redundancy systems causing data transfer issues.

Level 1: Overtime long hours

Level 2: Poor scheduling - Not enough staff - Linac Downtime

Level 3: Shift work+Patient Transport - Staff retention (bonuses, training, stock options, PTO, appreciation, pay) - Old equipment + Engineer availability + Preventative maintenance

Increase efficiency of staff.

Eliminate duplicate tasks
Monitor staff output with metrics
Temporarily increase staff
Add temporary workers

We have a similar problem at our clinic where Senior Physicist overtimes are not compensated therefore they are always left till last in terms of the overtime compensation.

Answer: Hire more people because this is not a short-term issue based on the record. Historically, medical events happened due to tired personnel. So long working hours may cause safety issues.

2 possible answers:

1. Hire another staff member, or
 2. Improve efficiency of current staff
-

Staff is working long hours in order to meet regulations and accreditation guidelines. With increasing technology demands and increasing patient loads, we either need more staff (moderate expense), more equipment (high expense), or better efficiency (minimal expense). Referring patients elsewhere is an option, but is a revenue loss. Let's consider investing in technology solutions to increase efficiency.

Push start dates out to reduce overtime.

First, find the cause of overtime. If the cause is scheduling not efficient, then make the schedules more efficient. If the cause is staffing sloppiness, then train the staff being not sloppy, and so on.

What: Too much overtime; Why: Influx of special procedures i.e. SRS and HDR; How to Solve: Increase temp staff (float pool) or Temp delay new starts or Stack similar procedures to increase throughput and thereby condense schedule.

Eliminate non-essential tasks

Supporting arguments - Reduce staff tasks

Next level - Eliminate non-essential tasks

Long working hours and overtimes are due to busy clinical schedules.

Minimizing overtimes would need more staffing, and working in shifts.

Another option is increasing the number of machines therefore distributing patients and decreasing the clinical working hours.

A cost analysis should be performed to see which is the best option."

In my department, we are often asked to explain OT, not necessarily solve it. Admin just wants to be able to understand the why and if it is a temporary why or something that needs to be solved.

To address overtime: Change staff hours (i.e. 4X10), Increase staffing.

Solution: Set hours and staff levels to accommodate volume, regular hours reduce overtime costs.

Change process to reduce redundancies, reduce services offered

- o What (Reasons)
 - § Too much work for staff
 - § Too inefficient
 - § Not enough knowledge/skills among current staff
- o How (tactics)
 - § Hire more staff (increase costs)
 - § Work on ways to automate work (auto contouring, planning, QA)
 - § Optimize staff duties (note where there's "dead time" during the day)
 - § Work on training (Vendor, Physics instructions, group meetings w/staff involvement who can share their individual strengths together)
 - § Document "how to do" instructions to reduce time spent figuring out how to do tasks.

I think most respondents will likely have the same answers, but one unique factor in a high workload could potentially be caused by changing demands, in which week-by-week or month-by-month, expectations are a moving target.

Scenario: Don't pull patients up on linac console before they arrive

Situation: Company not allowing physics to update their equipment for machine QA.

An option is to automate most of the workflow in order to extract information from the system without having to enter it several times

Patient QA with a QA device so we insure proper treatment and implicitly perform QA on more than a monthly basis.

Exercise 2

Scenario:

Think of a situation where you need to persuade another or group to change a practice or behavior in your clinical environment. Use the golden circle approach to sell your idea, starting with why, preferably using either the heart or gut (and not head) organs theory of connecting with others.

Comments from the Audience:

I actually am using a real-world example that I acted upon recently. I was trying to get my hospital's Incident Command to issue a directive that all hospital workers wear masks (of various types). I cited the impending change in the CDC's guidance for the average population, pointed out that hospital employees would feel we had lagged behind, and pointed out the importance of protecting our staff and making them feel safe. I think we will be forming a Task Group to address this.

Couch your argument in terms of the organization's goals. Focus on improvement in patient care.

In a teamwork approach in a rad onc department, it is important to have good communication with doctors and staff. Continuous quality improvement (CQI) is one such example for patient safety and better quality measures for patient treatments which I persuaded in my department.

An example is going to a paperless clinic, because it is environmentally friendly. We need to convince staff and MDs that have a fear and mistrust of technology to go paperless.

Issue: getting all to wear masks in clinic

Why: Awareness that anyone can cough

How: mask on when pt is in eyesight

What: masks don't protect user. They protect others from wearer.

Appeal to a sense of safety

For department procedures, talk with all groups to get input on the problem, offer solution and discuss with same groups to get to solution. Work reason with people why you need to follow guidance, but try to use the how from others.

IN CQI we can discuss, patients with long interruptions, any morbidities, quality control measures such as random selection of patients on different modalities and checking if all is complete, any medical/reportable events, machine down time and why and how that was resolved, any software hardware upgrades etc.

§ Scenario: How would you persuade another person/group to change their practice or behavior in your clinical environment?

- E.g. The communication between Physics and Therapy sometimes is tense - breaks down when Physics sticks to the hard data points vs. the Therapists who deal with a "live patient" who will vary in size, position
 - Using heart - there is a tangible physical impact on the patient that both Therapists and Physicists want to improve - and both viewpoints are important in optimizing this position.
 - Using Gut - it's a "funny" situation when Physics focuses on inanimate objects that don't have mobile parts ("Paper clinic") and Therapists don't see how patients morphing from sim to treatment has an impact - humorous in that people are "squishy" (moving tattoos)....
 - Using Head: There are tangible, rationale reasons to hold the initial "paper" patient in as close to the same position as possible
-

Scenario- not reporting errors for fear of retribution:

Why- We care about patients, we have a moral, professional and ethical obligation to do everything to keep them safe. One important way is to learn from our mistakes so we can strive to provide the best treatments possible.

How- Change the culture by encouraging and rewarding reporting, by giving positive feedback, by communicating learning opportunities from errors

What- Regular feedback, anonymous reports, positive management

Example: Change to adaptive therapy. Why: adaptive therapy can deliver more accurate treatments to patients. How: adapt new technologies into clinical, such as MRI linac, Ethos... What: Varian and ViewRay...

Why is this a problem: without proper and updated equipment, physicists are left to think of ways to perform tests without everything they need for the test. It forces creative setups and leads to dangerous situations that could damage the equipment, machine, or the physicist. This could also lead to machine downtime if the machine is damaged as a result.

How can we address the solution: Put together a report explaining why it's important to put together equipment request, why the device is necessary, getting a financial quote put together, and finally showing the benefit of having the piece of equipment can do for the department and how it benefits patient safety.

My group of several clinics has never been allowed to do anything remotely, clinic to clinic or at home due to CMS billing codes and language of supervision by MD. If a plan needed approval and no physicist onsite, we were to drive to that clinic to hit "approve". Given the recent COVID-19 safety issues, physicists stated with safety for the why, how - IS staff had to work overtime to get everyone set up at home since we'd never done this. What - keep our clinics up and running at safe level!

Behavior

Lack of communication between providers

Why

Communication ensures that the patient gets the best possible care and seamlessness of provider cross-coverage

How

Get more face-to-face discussion about each patient

What

Facilitate daily discussion about that day's new simulations and planned approach for treatment, and weekly discussion about the status of each patient"

WHY: When one wants to persuade colleagues to be more careful and reduce errors during execution of their work. Emphasizing the need to give accurate results while doing QA.

HOW. In radiotherapy mistakes that are carried over to the patient cannot be corrected, i.e. dose cannot be taken back and can be fatal. Therefore physicists are entrusted to make thorough to conserve lives.

WHAT: To treat each patient like their own mother or relative. In other words to give maximum attention, care and execute work efficiently.

The why is to keep people connecting while working remotely and ensure good people and clinical leadership. The how was to engage staff with daily group calls and individual calls as needed. The staff determines the communication needed on the individual basis. The what is it keeps us connected and is providing good service for the patients and clinicians during an unusual time and may be a way to implement more work remote after the crisis ends, which will increase employee engagement.

I believe that what helps get to the Golden circle are the Golden words in our area, which make us more compelling...Safer, Quality, Error, Patient first, etc. Also, "it is in the guidelines, it is required by..."

How: Meet with work group, work up training and practice procedures. What: set trainings and scenarios that are real for practice and comfort of continued use.

Why: Continued training on detection equipment - in our work group it is used seldom but when needed, needed quickly.

Improve treatment accuracy and efficiency... by changing to mono-isocentric breast treatment... starts in beam arrangement during treatment planning,.. all this done to change doctor from conventional breast treatment to mono-isocentric treatments to improve through-put and setup/treatment accuracy
