

HERE IS A BIG PROBLEM.
YOUR JOB IS TO DIVIDE IT
INTO SMALLER PROBLEMS AND
BLAME IT ON OTHER PEOPLE.



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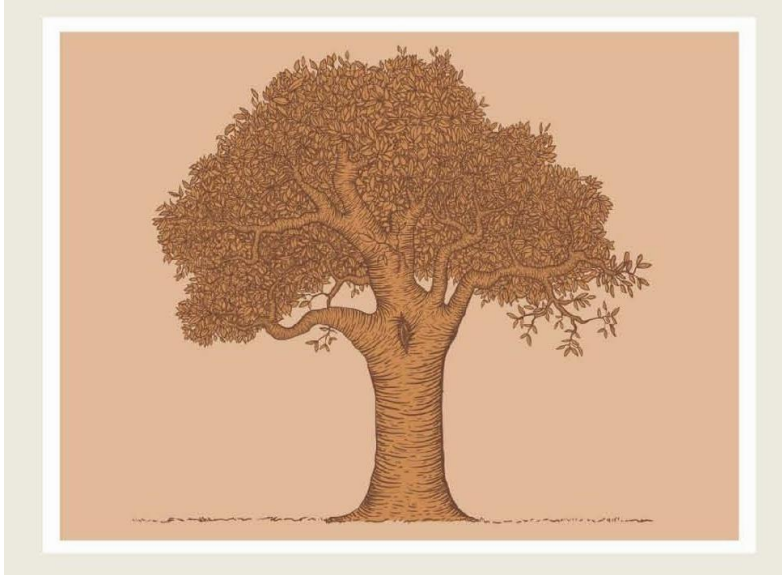
Creative Problem Solving

Make it a practice to keep on the lookout for novel and interesting ideas that others have used successfully. Your idea only has to be original in its adaptation to the problem you are working on.

- Thomas Alva Edison



Aesop's Fable: The Oak Tree & the Reed



Aesop's Fable: The Oak Tree & the Reed



Moral of the story: Those who adapt to new changes,
will emerge unharmed.



Resilience

Resilience $\neq$ “hard”



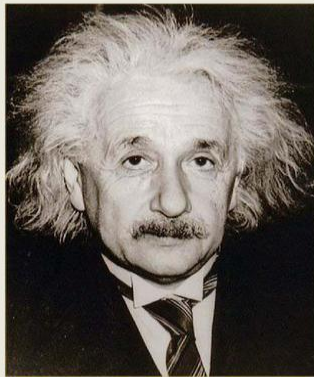
Resilience = “hardy”

- Able to adapt to new stressful situations
- Able to cope with new challenges
- Able to solve difficult problems in life
- Key word → “flexibility”

“Insanity”

“Insanity”: Doing the same thing over and over again and expecting differing results.

--Albert Einstein



Need for Flexible Thinking

- “We can’t solve problems by using the same kind of thinking we used when we created them”

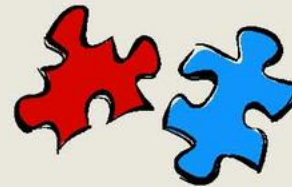
--Albert Einstein

So . . . what do we do?

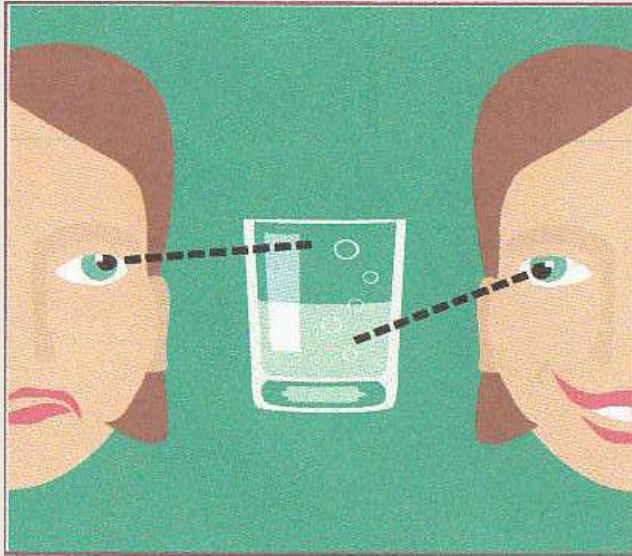


Multidimensional Model of (Real-Life) Problem Solving

- Two major inter-related dimensions
 - Problem Orientation
 - Problem-Solving Style

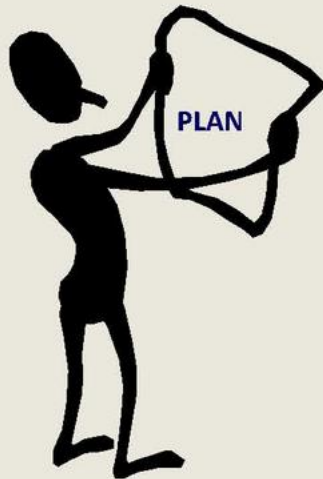


Problem Orientation



- Attitudes and beliefs about stressful problems in living & one's ability to cope with them
 - Positive orientation (“realistic optimism”)
 - Negative orientation (“pessimism”)
- Serves as motivating factor
- Impacts problem-solving styles

Problem-Solving Styles



Rational Problem Solving

Avoidant



Impulsive/Careless

Rational Problem Solving

- What's the problem?
- What are my options?
- Which option is likely to work and lead to maximal positive effects?
- Did my solution plan solve my problems?



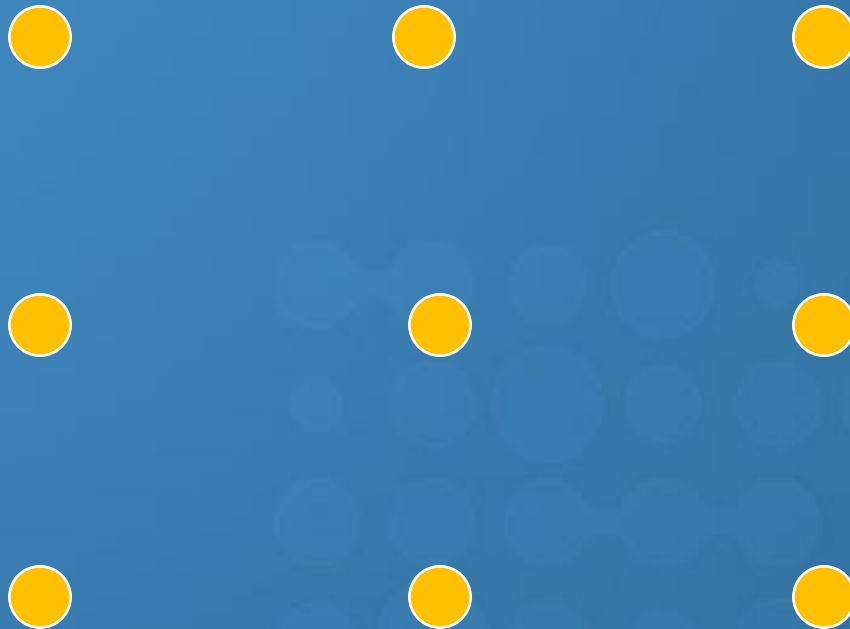
Use S.S.T.D.

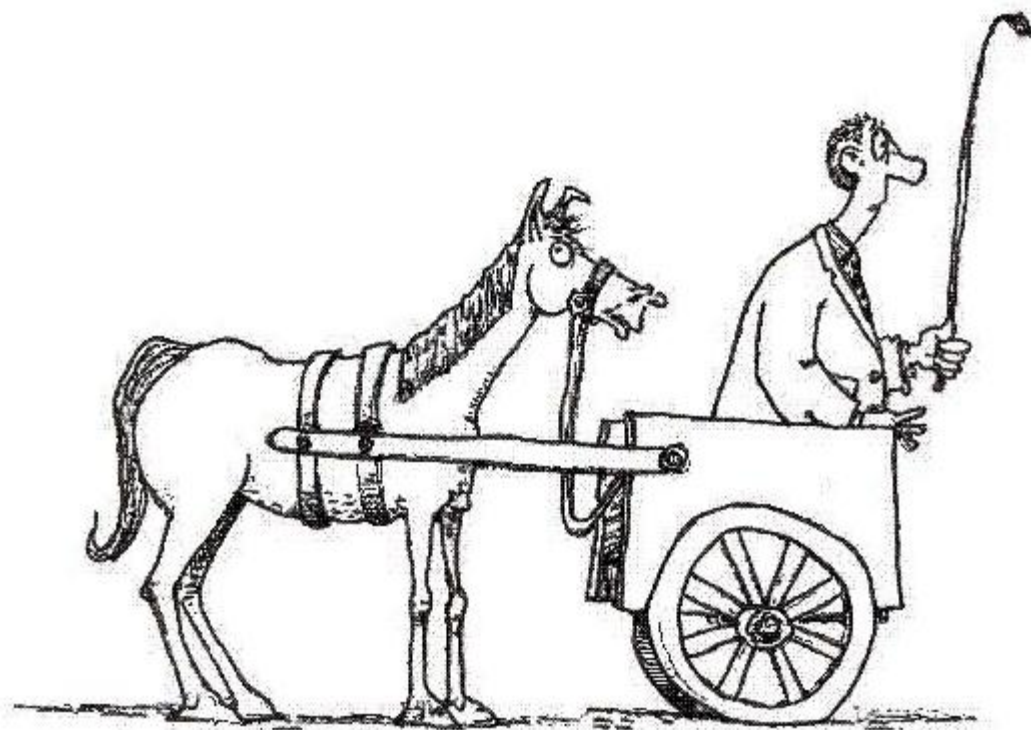
- **S****TOP**: “Put the brakes on”
- **S****LOW DOWN**
 - Slow counting (“down from 10”)
 - Deep breathing
 - Artificial “Yawn” (yes, yawn!)
 - Visualize “safe place”
 - Other relaxation techniques
- **T****HINK**: Rational Problem Solving
- **D****O**: Carry out action plan & evaluate outcome

Precuneus
(in parietal lobe)



Connect all 9 dots with 4 straight lines. Go through each dot only once. Do not lift your pencil from the paper.





Problem

- Undesirable gap between the desired condition and the actual condition of something important
- Is an effect resulting from the interaction of either known or unknown causes

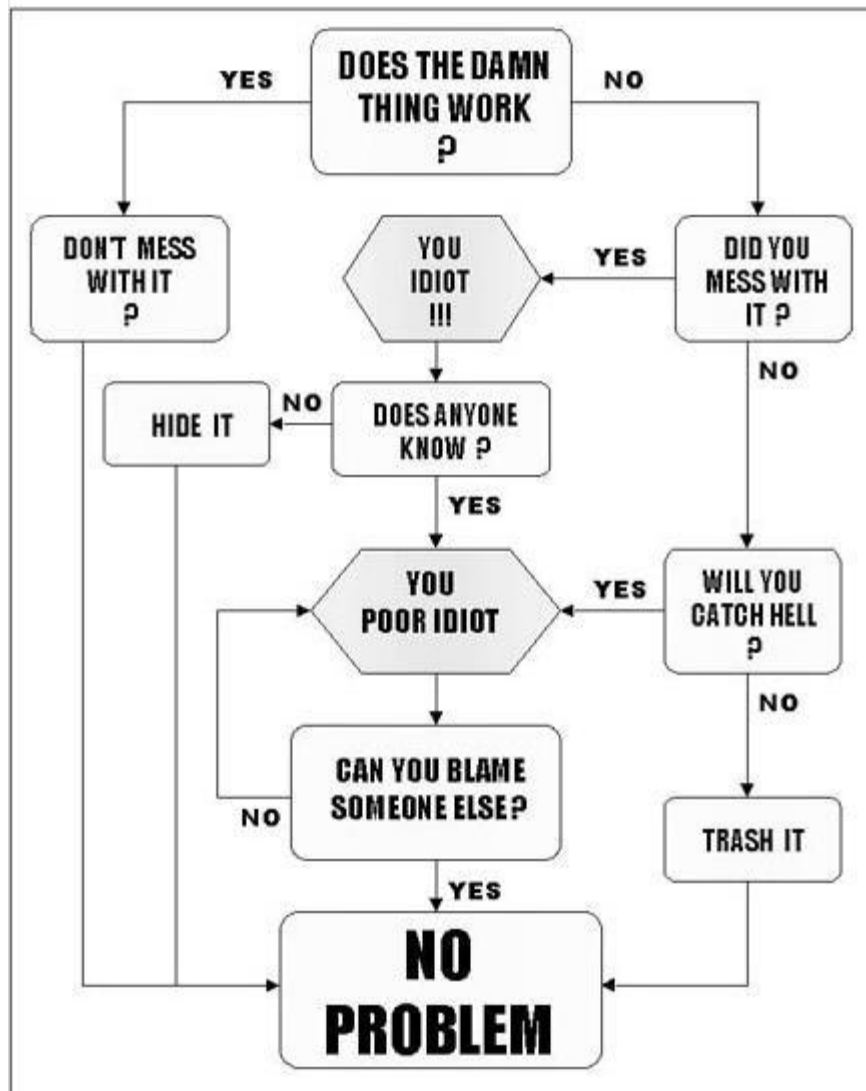
Solution

- Involves taking corrective actions to close the problem gap by eliminating or mitigating the causes of the problem
- To achieve enduring solution, it is necessary to identify all of the problem's causes

Problem – Solution - Causes

- Most problems have direct causes – near in time and distance to the problem effects produced
- Direct causes are more apparent and easier to detect
- However, there are additional higher level or “root” causes to a significant problem
- These causes are further away in time and distance and more difficult to detect

PROBLEM SOLVING FLOWCHART





Problem Solving

Persevere!

Trial and Error.
Try, try again.

Generalize!

Use what you know
from a previous
experience.

Act on Instinct!

Sometimes you see
exactly what to do.
Aha!

Plan!

See the whole board. Think several
moves ahead. Work backwards
from the end.

Use the Process of Elimination!

Don't use moves that you know
don't work.

Collaborate!

Work with a partner or group.
Sometimes, two heads are
better than one.

Be Creative!

Try something
completely different.

*So what do
you think?*

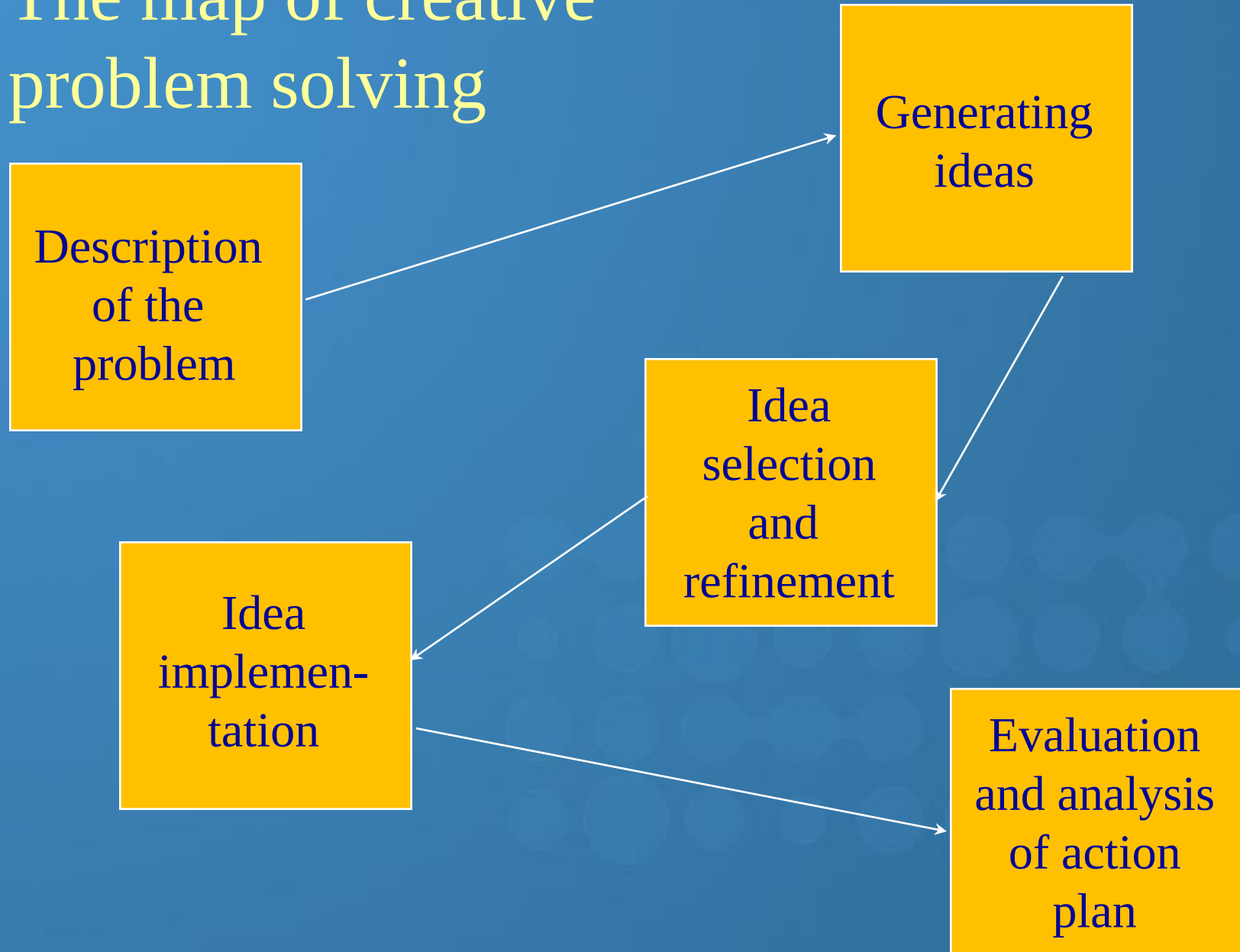
*Well, how about
if we tried...*

*Another way to
look at it is...*





The map of creative problem solving



Description of the Problem

- Look at problem from all sides
- Objectively state, define, history, perspective, projected influence
- Subjectively state feelings, depth, impact
- Analyze strengths & weaknesses
- What is face value?
- What is bottom line?



Generating ideas

- Memory – previous experience
- Any internal or external source
 - Books, people, museums, movies
- No censoring of ideas

Idea Selection and Refinement

- Spread them out and look at them
 - Order them
 - Circle them
 - Line them up
 - Rank-order
- Adapt the idea to 'best fit' the problem
- Visualize pros and cons
- Determine needed resources

Idea Implementation

- Involves bravery
- Game plan / Strategy
- Put idea into effect
- Try it out

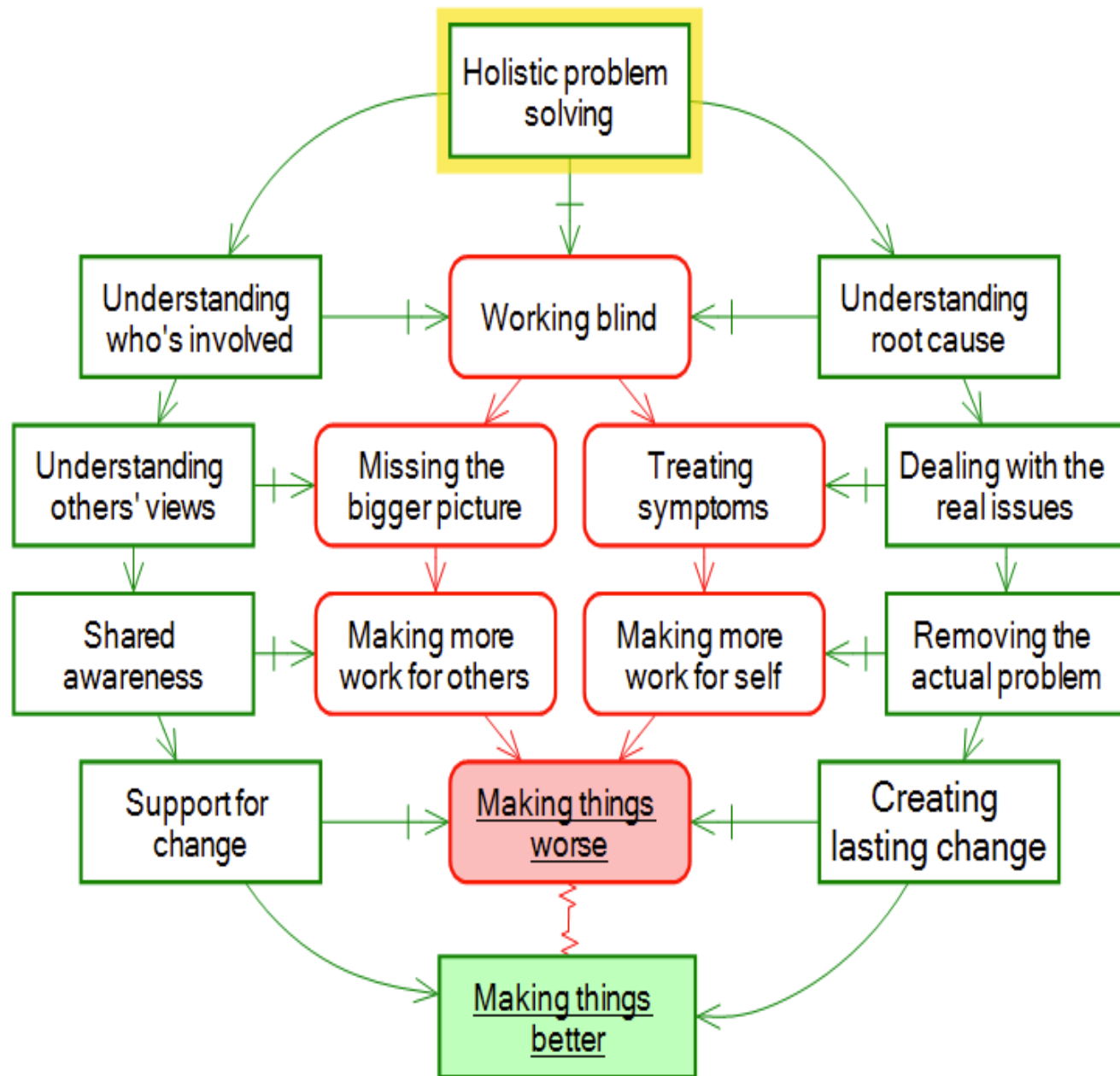
Evaluation and Analysis of Action

- How well did it work?

- Resolved?

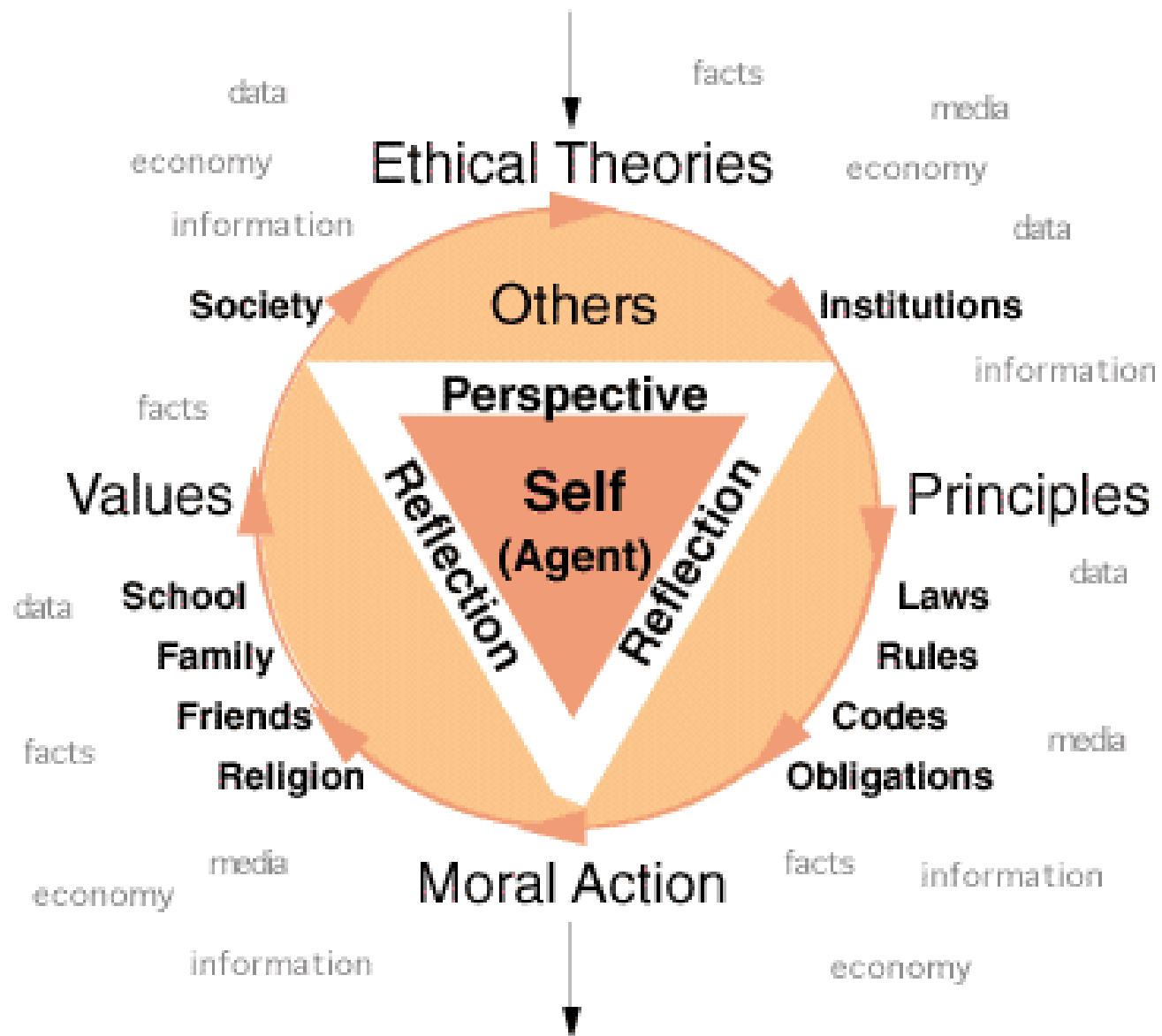
OR

- Back to the drawing board?



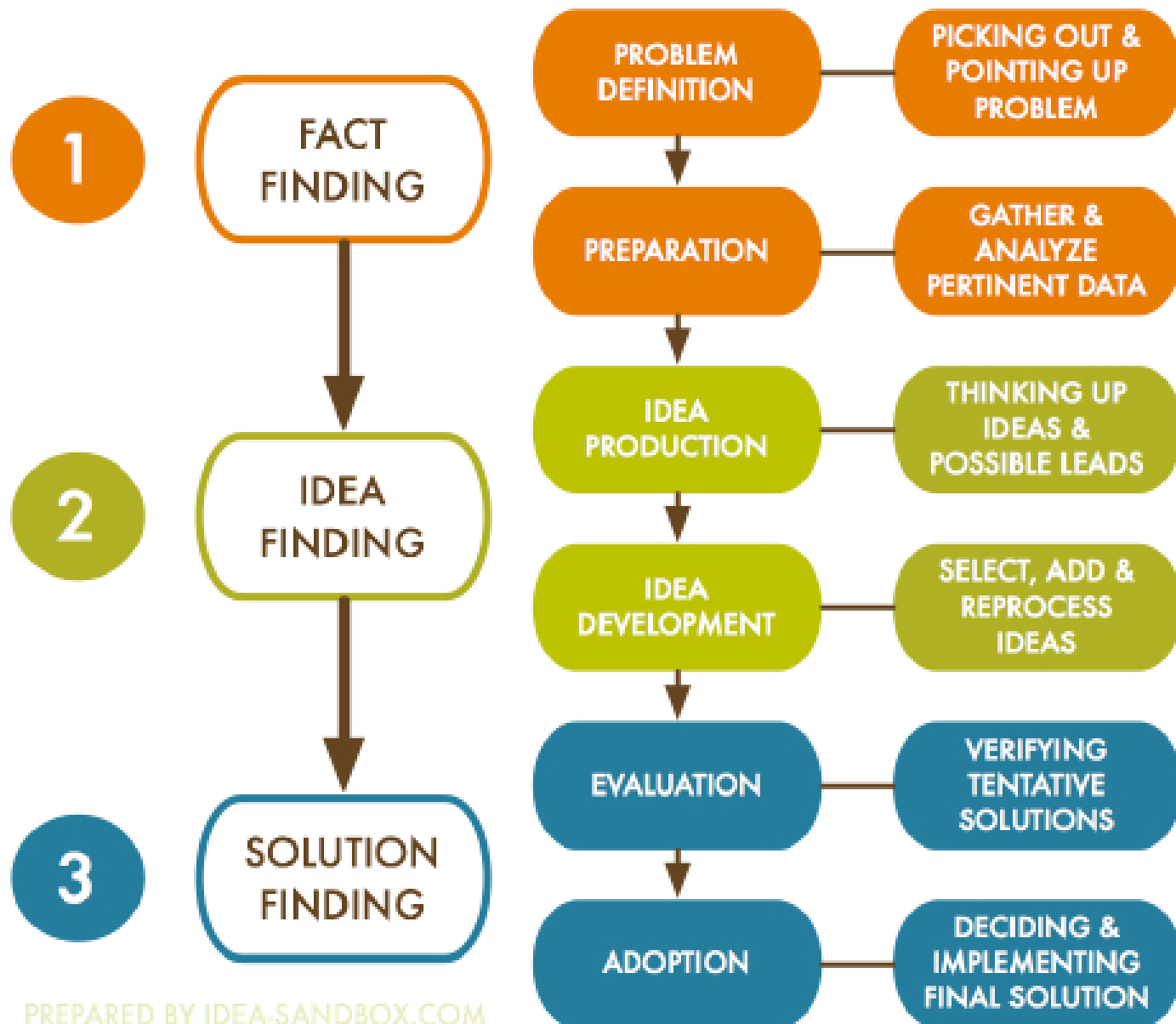


MORAL PROBLEM



MORAL KNOWLEDGE

CREATIVE PROBLEM SOLVING PROCESS : OSBORN



Present method

What is achieved?

How is it done?

When is it done?

Where is it done?

Who does it?

Challenge

Why is it necessary?

Why that way?

Why then?

Why there?

Why them?

Improvement options

What else could be done?

How else could it be done?

When else could it be done?

Where else could it be done?

Who else could do it?

Best option

What else should be done?

How else should it be done?

When else should it be done?

Where else should it be done?

Who else should do it?

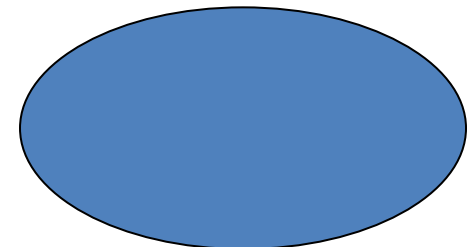
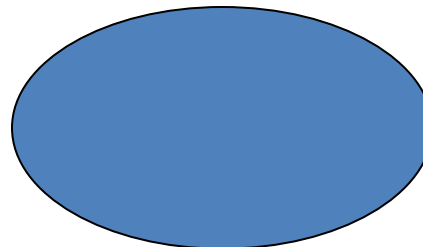
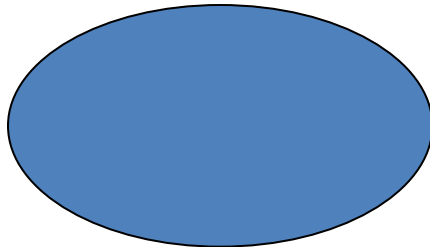
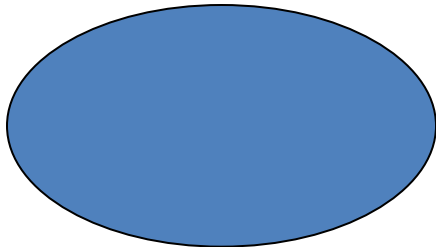
Problem solving

What did you try to do?

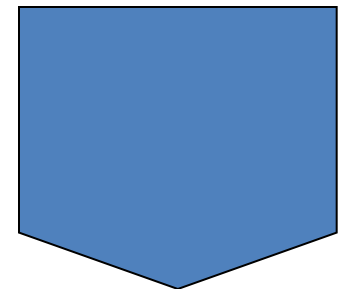
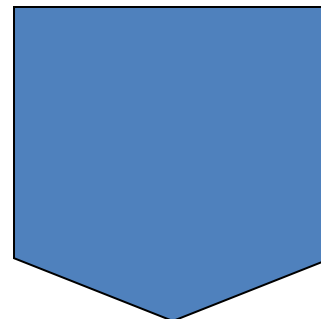
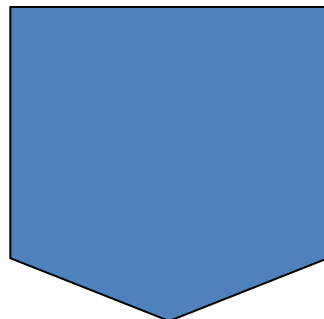
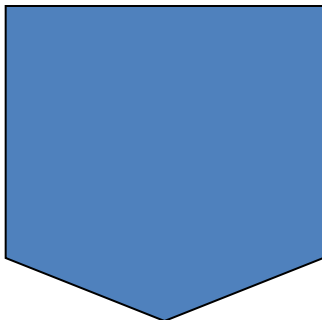
What were the problems you had?



Why were these problems for you?



What can you do about these problems?



Problem solving

What did you try to do?

Do a computer course

What were the problems you had?

There were no
local courses

I got a really
bad cold

My home computer
is too old

I couldn't meet
With my case manager
To get funding

Why were these problems for you?

I can't travel
that far

I just didn't feel
up to it

I can't practice
without my
own computer

I need ACC to fund
the course

What can you do about these problems?

Check your
thinking
patterns

Are there
other ways
to do it?

Read your
Action plan
Have you used
all your
resources?

How important
is this to you?



PROBLEM SOLVING.

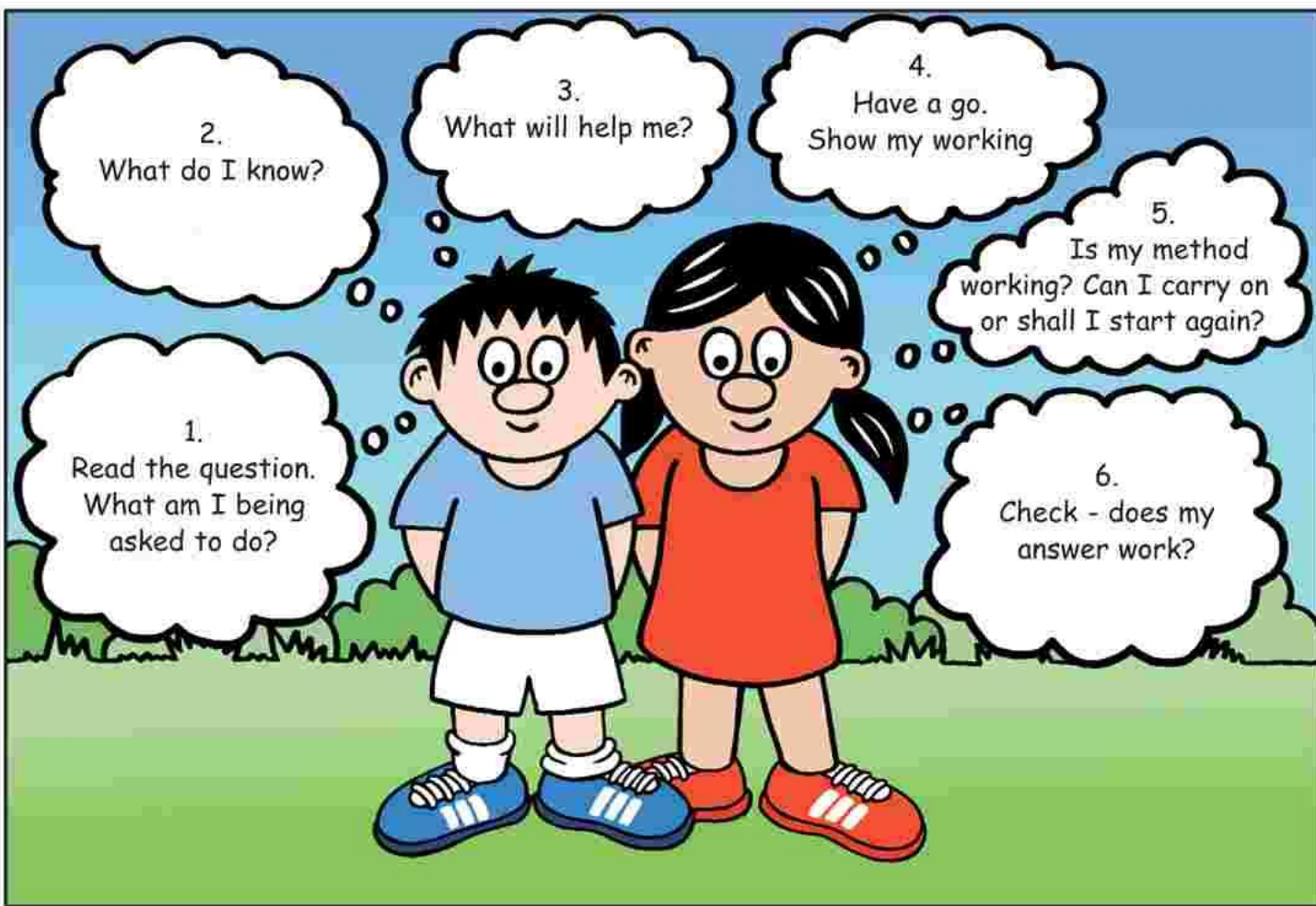
**THERE'S NOTHING ON EARTH THAT THE APPLICATION OF
UNREASONABLY LARGE AMOUNTS OF HIGH EXPLOSIVES CAN'T CURE.**



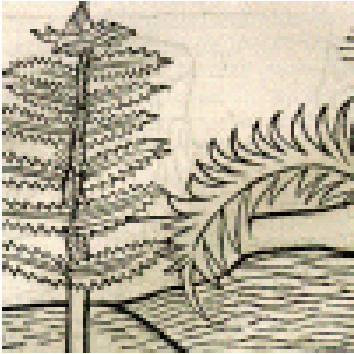
PROBLEM SOLVING

There are few of life's problems that cannot be solved with the proper application of
a high explosive projectile





Aesop's Fable: The Oak Tree & the Reed



A story about a reed and an oak, urging us not to rely on strength.

A reed got into an argument with an oak tree. The oak tree marvelled at her own strength, boasting that she could stand her own in a battle against the winds. Meanwhile, she condemned the reed for being weak, since he was naturally inclined to yield to every breeze. The wind then began to blow very fiercely. The oak tree was torn up by her roots and toppled over, while the reed was left bent but unharmed. *Those who adapt to the times will emerge unscathed.*

