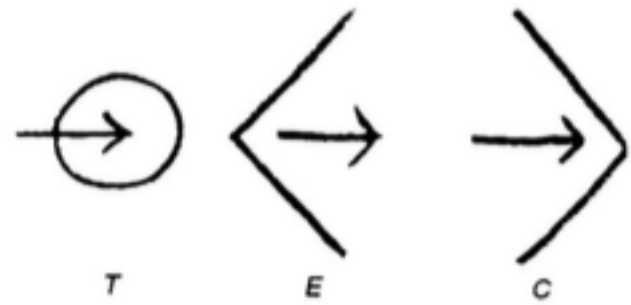## Symbolic TEC

A symbolic representation of TEC is shown in the figure below.

These symbols can also be used separately as instructions to oneself or to others "to focus" or "to open up" or "to narrow down or contract."

They could, for example, be placed in the margin of a report.

T   E   C

The TEC Framework

This is a very simple structure for focusing thinking and making of it a deliberate task.

The TEC structure itself will be incorporated in a "five-minute think," which I shall describe later in the section.

For the moment TEC is going to be treated in a more general sense.

T stands for "Target" and "Task"

- The **"target"** is the precise focus of the thinking.
  - ❖ If we were looking at shoes we might choose to focus upon the heel or shoe style in general or the need for different right and left shapes.
  - ❖ As mentioned under "focus" the target may be as general or as tight as you wish.
  - ❖ Indeed a tight target may have been defined in a previous thinking session.
- The **"task"** is the thinking task that is to be performed.
  - ❖ It may be …
    - It may be a matter of review which involves looking at the way something is being done with an eye to improvement.
    - It may be a matter of fault finding and fault correction.
    - It may be a matter of problem solving.
    - It may also just be a matter of problem finding.
    - The task may be a creative exercise:
      - ○ "How else could I perform the function of a heel?" or
      - ○ "How could heels be made more useful?"
    - Any of the thinking tools mentioned in this book (or in the CoRT lessons) can become the "task."
      - ○ You may set yourself the task of doing a C & S or an AGO.
- It is important to define both the target and the task rather precisely.

E stands for "Expand" and "Explore"

This is the opening-up phase.

- We could use lateral thinking techniques like the random word or provocation.
- We could do a CAF and consider all factors.
- We could scan our experience.
- We could analyze the situation.
- We could try to abstract familiar patterns.

In this phase we are

    opening up the field,

    filling in the map,

    exploring the territory.

A certain amount of wandering is permissible at this point.

    It is not unlike those essay questions in school:

    "Write all you know about … "

The expansion is positive and free-flowing.

- We are not trying to exercise judgment or find the best ideas at this stage.
- We are pulling in information and concepts.
- "Richness" is all important.

C stands for "Contract" and "Conclude"

This is the narrowing down phase.

We are now trying to make sense of what we have.

We are trying to come to a definite conclusion.

    This may be a solution,

    a creative idea,

    an additional alternative or an opinion.

We can now use design, shaping and judgment.

The conclusion is the **outcome of our thinking**, not just a summary of it.

- What does it boil down to?
- What does it add up to?
- What is the outcome?
- What is the result?

There are three levels at which the conclusion can be set:

    1. a specific answer, idea or opinion

    2. a full harvesting of all that has been achieved, including for example a listing of ideas considered

    3. an objective look at the "thinking" that has been used

Even in the absence of anything at level (1) there should be an output at levels (2) and (3) .

As a simple framework TEC can be applied at any point:

- focus
- set task
- open up
- narrow down and conclude.

The 5-Minute Think

This is a formal framework and it should be carried out formally with strict time discipline.

The timing is as follows:

- 1 minute: Target and Task
- 2 minutes: Expand and Explore
- 2 minutes: Contract and Conclude

Five minutes seems a very short time—which it is if the thinking is of the waffle variety.

- For focused thinking, however, it is a surprisingly long time.
- At first, many groups run out of thinking before they run out of time.
- The 5-minute think can be done by individuals on their own or by groups.
- A group should not be larger than four members, otherwise each member gets too little participation time.
- As mentioned above, the time discipline must be adhered to.
- This is important because it is the only form of discipline and adhering to it also means adhering to the focus.
- For example, it often happens that the thinker or the thinking group decides upon a target and task before the first minute is up.
- There is then a temptation to rush ahead to the next stage.
- This is to be avoided.
- The reason behind the strict adherence to the time is that if a thinker feels he or she may not have enough time in the expand and explore section, there is a temptation to rush the first section in order to create more time.
- The result is that the first section—which is deceptively simple—does not get proper attention.
- So stay with the first section until the time is up.

A sample 5-minute think is shown below.

…

The above sample does arrive at a definite conclusion.

In other cases this may not be so.

At the end of the 5-minute think there may only be a feeling of the difficulty of the subject or the need to set a more specific target.

If this seems to be the case then the "Expand and Explore" section can actually be used to identify and formulate an approach to the matter or to define a problem that can be tackled in another section.

The important thing is that the output must be definite, but that there are a large number of alternative outputs.

It is enough that something has been achieved.

It is unrealistic to expect the whole problem to be solved in 5 minutes.

There should be no sense of rush.

If there is, then the target has been pitched too widely.

It is also possible to repeat a 5-minute think with the same target.

I would, however, advise against doing this immediately because there is a temptation to turn a 5-minute think into a 30minute think through a succession of sessions on the same subject.

This destroys the whole point of the exercise.

A sample 5-minute think is shown below.

In practice the ideas would be thought about rather than written.

The subject area is the telephone.

Target and Task (1 minute)

- new design-of telephone
- correct some faults
- additional functions to be added to telephone
- some new type of telephone service
- concentrate on some major defect
- perhaps interruption is one of these
- ways of coping with telephone interruption

So the task is to find ways of coping with telephone interruption.

Expand and Explore (2 minutes)

- Use telephone answering machines.
- The Japanese have an answering machine to answer normal callers but special callers have a secret number which allows them to get through to the person.
- Have a secretary who says you are at a meeting.
- In the USA there are "voice mail" systems which are essentially one-way telephones through which someone leaves a message in your computer "mail box." You clear your mail box as often as you like and call back and leave a message in the other party's mail box. So the telephone is no longer regarded as a "real time" system.
- Some sort of special ringing tone—or better still a light—which allows you to tell whether the call is urgent. But people would cheat and claim all calls are urgent —which indeed it may be to them but not to you. Could you perhaps see for yourself whether or not the call is urgent? A small print-out on a piece of paper of who the caller was and what he wanted would be a help. It could be on paper or on a screen. I believe there is such a device already in existence for deaf people.
- If it were on paper you could just tear off the list of names, numbers and reasons for calling and then call back when you wanted. It would be more convenient and quicker to scan than voices on a tape. But everyone would need either a keyboard or a device which converted voice into typing. A simple fax would help.

Contract and Conclude (2 minutes)

- It would be a nice means of having some way of telling who it was and what was wanted. A secretary could do this but it would still mean interruption and a lot of your time and hers.
- A visual read-out at the time would be better. If you were very busy you would not bother to read this until later. If you were less busy and the call was important you might want to pick up the phone there and then.
- You could, of course, always ask people to fax instead of phoning. The technology is not difficult and a print-out device probably already exists for deaf people.
- The major snag is that the sender would need a key pad. How could we get around this?
- Perhaps the sender could use the ordinary dial numbers on any phone by tapping in a special code. This would mean that any ordinary telephone could be used.

Conclusion:

a print-out device that could be attached to any phone and operated from another phone just by using the ordinary dialing numbers.

Overview of thinking: problem finding and problem solving

Focus on one particular problem: There are ways of overcoming this but these are not good enough; imagining an "ideal solution" and then looking around to make this practical; developing the idea, then focusing on a deficiency; finding a way around that deficiency.

The final result is a particular product idea which opens up a new phone function.

The above sample does arrive at a definite conclusion.

In other cases this may not be so.

Symbolic PISCO

These are the symbols representing PISCO:

P   I   S   C   O

Deliberate Practice of Thinking

We do not only learn to swim when we are drowning.

Nor do we only learn swimming in order to avoid drowning.

Swimming does serve this purpose but we also learn it to enjoy it.

It could be the same with thinking.

PISCO

A rather fuller framework is provided by PISCO.

Both TEC and PISCO are more fully described in section VI of The CoRT Thinking Program.

The letters in PISCO stand for:

P stands for Purpose.

What is the purpose of the thinking?

What is expected as the end product?

Why is the thinking being done?

This is somewhat similar to the T of TEC but with rather more emphasis on why the thinking is being done at all.

I stands for input.

This is the input information, experience and all the ingredients that need to go into the thinking.

At this stage the various tools such as CAF, C & S, OPV can be used to develop a rich map.

This is somewhat similar to the E part of TEC.

S stands for Solutions.

These are alternative solutions, ideas or approaches to the matter.

The word "solution" suggests a problem, but in this case it merely indicates concrete alternatives which are offered.

In this sense the S is a narrowing down not unlike the C of TEC.

C stands for Choice.

This is the choice between the alternatives that have been offered at the previous stage.

A decision and an evaluation is made at the end of which there is but one surviving alternative.

The section on decision making could be of help here.

O stands for Operation.

This is the action stage.

This section is concerned with putting the chosen alternative into action.

What are the steps to be taken?

How is the matter to be staged?

The implementation of the idea is focused upon at this point.

TEC-PISCO

The two frameworks can be combined.

TEC is the more general framework.

PISCO spreads out the stages and can be more useful if there is an actual problem or matter that has to be thought about.

There is no particular time limit on the stages—just a consciousness of whichever stage is being used.

At any point in the PISCO process an area that needs more thinking can be identified and the TEC frame can then be applied directly at that spot.

For general purposes and the exercise of thinking skill the TEC framework is sufficient and there is no need to go for the more elaborate PISCO.