

## Problem solving by wisdom (using “Method for creating Wisdom from Knowledge”)

### Outline of the 'Method of Creating Wisdom from Knowledge' which prevents hit-and-miss problem solving.

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The same page can be downloaded from <http://dtn-wisdom.jp/00001-E-problem-solving.pdf>

The Book for more detail can be downloaded from <http://dtn-wisdom.jp/00001-E-wisdom%20book.pdf>

In order to fully understand the following explanations, questions and answers it is necessary to glance through the 'Method of Creating Wisdom from Knowledge'

(To purchase of this book can be made from Amazon, it is necessary open URL bellow

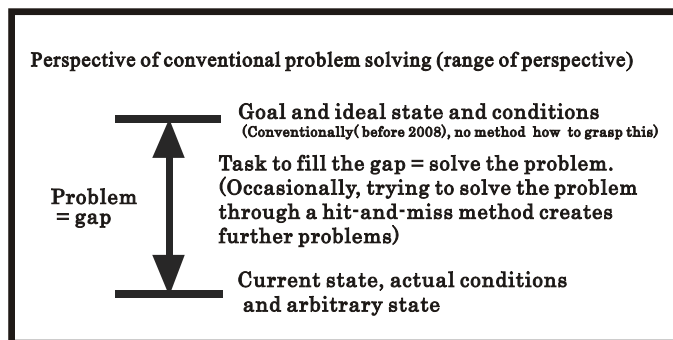
[http://www.amazon.co.jp/gp/switch-language/product/4889190279/ref=dp\\_change\\_lang?ie=UTF8&language=en\\_JP](http://www.amazon.co.jp/gp/switch-language/product/4889190279/ref=dp_change_lang?ie=UTF8&language=en_JP)

and the catalog is found at <http://dtn-wisdom.jp/00001-R3E1.pdf> )

#### Explanation 1 (Esaki):

Grasp the ideal state for problem solving

#### Diagram 1: Conceptual diagram of a conventional problem solving method



In the conventional problem solving method, the difference (hereafter called 'gap') between the ideal state and conditions (physically realizable range) and actual states is bridged by solving the problem.

Selecting what to 'fill in' this gap with had been done with 'Decision Making' (H. Simon and others).

However, the method to logically grasp this ideal state or the rational way of

filling in this gap were vague.

In addition, there had been no definite method utilizing the upper purpose for the ideal state and conditions .

As well, there were no explanation concerning the classification of the words 'goal' and 'purpose'.

If a diagram of problem solving were drawn up, it would look like the following diagram 1 and 2.

#### Question 1 (Esaki):

After grasping the ideal state, was there a conventional method that explained how to fill in the gap?

#### Answer 1 (reader):

I believe there were almost none.

#### Explanation 2 (Esaki):

After grasping the ideal state, the method of filling in this gap (which is physically realizable) is the 'Method of Creating Wisdom from Knowledge'.

This method can be started by the 'Method of replacing the problem with the task'.

After the task is established, the 'Purpose Measure Diagram' (PMD) is made and the 'Main Keyword' is grasped. (Details on the PMD concept can be found in this book 'Method for Creating Wisdom from Knowledge'.)

The result of the Main Keyword is made as the result of the upper purpose and it then becomes the target. If both the 'Purpose Measure Diagram' which indicates the Direction of Will and the 'Main Keyword' which shows the realization action level in the Direction of Will can be grasped, then it can be said that it was 'Will Decided'. (The method of making a PMD is indicated in this book 'Method of Creating Wisdom from Knowledge' (Page 36~64) .document.)

Next, in order to realize the 'Will Decision', one needs to find an expression which tells where to start.

This expression can be found easily at the bottom of the Purpose Measure Diagram and it will become the Entrance Keyword.

In addition, if one goes further with this Purpose Measure Diagram, the expression 'make a Purpose Measure Diagram' will normally appear below it.

When the 'Main Keyword' is made as the 'Key', by using the FBS technique found in the method of

creating wisdom from knowledge, the contents of the target of the purpose result can be clarified (the ideal state and conditions).

The FBS (Function Breakdown Structure) technique will be used as the method. (Page 110~125)

Three extreme proposals are then created and the most suitable proposal will be found to lie somewhere between them. By conducting the 'Creation of a comparison proposal of the first level and task optimization of the evaluation, selection and judgment', the basis of the Basic Idea (proposal) of the purpose can be made.

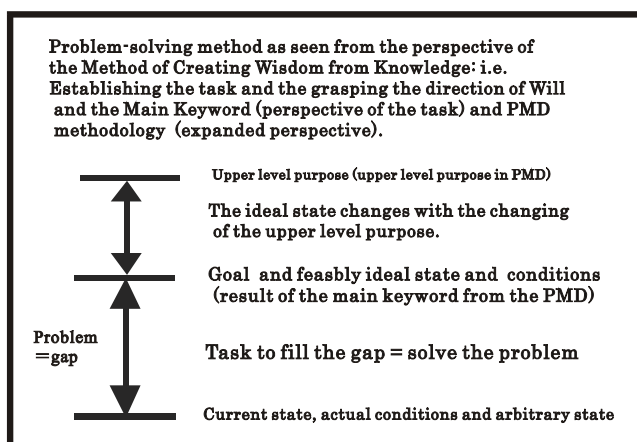
Next, using the '**Steplist method**' (method of creating the procedure) found in the **Method of Creating Knowledge from Wisdom** the induction approach made in the 4 phases will phase and refine the most suitable proposal that was first made and the basic idea (proposal).

Then, in the following phased procedure of the deduction approach, that proposal will be realized in the actual world.

Here, what is important is to confirm the upper target of the ideal state which is indicated in Diagram 2.

Diagram 2 shows the basic image.

**Diagram 2: Grasping the ideal state (Main Keyword) and confirming the upper purpose.**



The problem and task positions are interchanged and while clarifying the **upper level purpose**, the **upper level purpose** is clarified by **making a PMD**. (Details on the PMD concept can be found in this book 'Method for Creating Wisdom from Knowledge'.)

In this diagram, it needs to be recognized that when the **upper purpose** changes, so will the ideal state and conditions. As well, when the lower level means (especially idea) changes, the **scope of the upper level purpose** will become broader.

**Comment 2 (reader):** Indeed,

**Explanation 3 (Esaki):**

In addition, words or mindsets that were conventionally known but ambiguous are explained by using the **Method of Creating Wisdom from Knowledge**. (See each pages bellow)

- (1) Regarding problem solving and task realization (Page 18~21)
- (2) Proper use of the questions "To do what?", "How to do it?" and "Why?" (Page 22~23)
- (3) Method of vector-aligning the parties concerned. (Page18)
- (4) Relationship of the target (especially the upper level target) and purpose (Page 159~160 and this document)
- (5) Difference between knowledge and wisdom (Page 152~153)
- (6) In verification, there are two parts: Verification and Validation. What are the differences in their meanings? (Page 76)
- (7) What needs to be done in order to have said an evaluation was conducted? (Page 76)
- (8) Judgment mechanism by way of **Will Decision** and Information of Difference. (Page 121~132)

**Comment 3 (reader):**

I see. By using this method, things which were ambiguous or their explanations insufficient can be clarified.

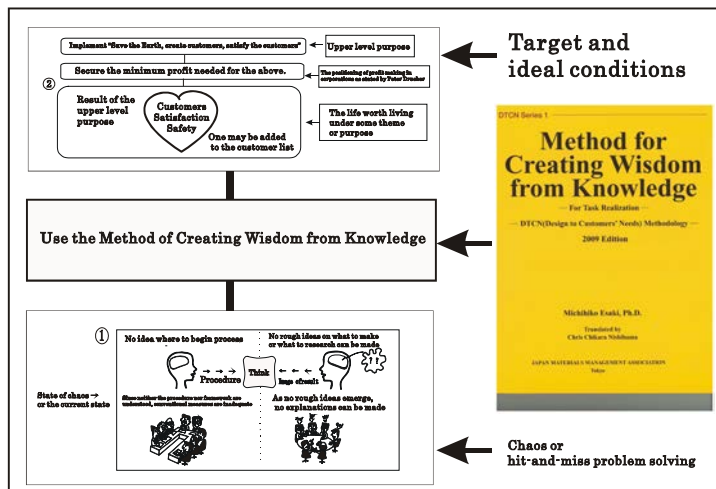
**Question 4 (reader):**

Can you further explain the structure and contents of this method?

#### Answer 4 (Esaki):

The following would be the diagram of the above-mentioned ideal state if the method for creating wisdom is used on the purpose and means relationship in order to realize it.

Diagram 3 : Position of the "Method of Creating Wisdom from Knowledge"



Please view the above **diagram ①** as being the 'chaotic' state when considering where to begin. (Conventionally, one does not know how to prevent a hit-and-miss situation in problem solving when there are no background information in new situations.)

**Diagram ②** is an image of the ideal state with the upper target included.

What fills in the gap is the '**Method of Creating Wisdom from Knowledge**' which also incorporates measures to prevent a hit-and-miss

situation.

Also, in business the basis of the upper level purpose which creates profit for companies or individuals lies in 'Save the Earth, create and satisfy customers'.

This methodology allows for the minimum amount of profit (which includes measures for risk).

When this rule is not observed and acquiring profit becomes the upper purpose, a great problem like the bankruptcy of the Lehman Brothers may occur.

In the case of ①, this shows the procedure where it may not be possible to know or have a vague idea what needs to be done in order to obtain such a result.

Also, it shows the typical chaos that would exist in problem solving as the framework may not be known and even through free discussions by scholars, no ideas or proposal may be drawn.

Here, a rational procedure would be needed in order to prevent a hit-and-miss problem solving situation.

To incorporate such a rational procedure it is necessary to switch the problem to become the task and to **Will Decide** in order to create an idea and realize it. Diagram 4 shows what the overall outline would look like.

**Relationship of purpose and means in the Method of Creating Wisdom from Knowledge (DTCN Methodology)**

**WAY OF THINKING (mindset)**  
Read the upper level as the purpose and lower level as the means  
**WAY OF THINKING (mindset)** ↓  
In order to do what

**PROCEDURE**  
↑  
How to do

**Realize "Save the earth, create and satisfy customers"** ← Upper level purpose

**Secure the minimum profit required for the above-mentioned** ← Positioning of obtaining profit by corporations as mentioned by P. Drucker

**Result of the upper level purpose** ← Creation of something to live for in daily life within the theme framework

**Customers Satisfaction Safety**  
One may be included in the customer list

**Create the procedure**

⑧ **Steplist**  
Realize according to the procedure

⑦ **Make and acknowledge "Implementation Plan that indicates procedure and framework" using the Implementation Plan method Organization of tasking in the direction of Will**

⑤ **Mechanism of decision and judgment of Will by Information of Difference**

④ **Organization of tasking in the direction of Will**

**Use the PMD Methodology**

1. Define the "Direction of Value (relationship of purpose and means)" that is the same as the customer.
2. Define the exact Main Keyword and identify the upper purpose in the form of "verb + noun" expression with minimum use of adjectives and adverbs for both
3. Define the expression (Entrance Keyword) that shows how and where to proceed

**PMD: abbreviation of Purpose Measure Diagram**

**Create the image structure of task result**

⑨ **FBS technique**  
Create 3 proposals, compare, and select

⑥ **RO (Root Organizing) Method**  
Do groundwork and create framework that materializes desired results  
Organise using the RO Methodology  
RO: Root Organizing Methodology

**Switch "Problem" to "Task"**  
When it is a task to begin with do not switch

**The upper part from here is the Method of Creating Wisdom from Knowledge (DTCN Methodology)**

① **No idea where to begin measures**

**State of chaos** →

**Procedure** → **Image**

**Since neither the procedure nor framework are understood, conventional measures are inadequate**

**As no rough ideas emerge, no explanations can be made**

This can be made through the **Method of Creating Wisdom from Knowledge**.

**Explanation 5 (Esaki):**

The method found within the bold broken line is the **Method of Creating Wisdom from Knowledge**.

As explained at the top of the diagram, one needs to read from top to bottom with the segment **"In order to ..."** added to the upper statement so that the purpose and means relationship is reversed.

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**Question 5 (Esaki):**

Can you properly explain the difference between knowledge and wisdom?

**Answer 5 (reader):**

Both knowledge and wisdom are similar, but I cannot clearly explain their relationship.

**Explanation 6: (Esaki):**

**Knowledge contains 2 information.**

One is the cause-effect relationship (what happens when something is done) and the other tells what thing (mechanism/component) that is included.

**Wisdom contains 3 information.**

One concerns with what needs to be done in order to achieve something.

This includes the **Will** to attain the exact desired results.

Two deals with the procedural information of materializing the desired results.

Three is information concerning what things/system can be most suitably realized from the result.

The following is a simple example illustrating this explanation.

● To 'Have knowledge' means having the following two information.

① Having the cause-effect relationship information.

② Having information concerning what exists (including knowing the internal mechanism/components). For instance, knowing that a glass cup would break if dropped is having the cause-effect relationship information. This requires one to know the existence of the glass cup including its material and components.

● To 'Have wisdom' means to

① Have Will when wanting to do something.

This indicates having the 'Direction of Will' by repeating the purpose and means relationship from the upper level purpose 'in order to...', 'do...', and grasping the 'Main Keyword' found near the middle which summarizes the 'Will'.

(note) This method is different from those conventionally used by organizations that expresses 'Will' as the 'Target'.

② In order to realize it, if the 'Have information on the procedure 'How to do it?'" and

③ 'Have information on what results will be brought about for certain mechanisms and components' are used,

there will be 3 information.

For example, if one had **'Will'** and wanted to use a piece of broken glass to shave one's beard, one would drop the glass or to insure that it would break, throw it up in the air and let it drop onto concrete (information concerning the procedure on what to do).

Also, as a result one would choose the broken glass with the sharpest edge (to know the result and structure/component).

**Comment 6 (reader):** Indeed,

**Explanation 7 (Esaki):**

This wisdom will combine the knowledge and hidden knowledge that we have together with the external knowledge that can be acquired in a physically realizable sequence. By combining these knowledge, the prospects of success can be weighed while wisdom is being created. Moreover, if this method is not used, it cannot be created. In the book "Method of Creating Wisdom from Knowledge", groups or individuals can benefit by using this world's first method that can combine knowledge in a reasonable and sequential manner.

(For the English catalog, please look at <http://dten-wisdom.jp/00001-R3E1.pdf> )

In April, 2011 (present), this is explained in the Wikipedia article outlining problem solving in the last paragraph concerning 'Method of preventing a hit-and-miss situation in problem solving'.

<http://ja.wikipedia.org/wiki/%E5%95%8F%E9%A1%8C%E8%A7%A3%E6%B1%BA>

If we reflect on this, it can be seen that we have used this method unconsciously but since it was never fully explained or utilized, my book has become the world's first methodology based on this. (From <http://dten-wisdom.jp/00001-web.pdf> ,etc.)

**Explanation 7-2 (Esaki):**

If we make figure ① the starting point, then the information for realization as in figure ② 'result of the purpose of the upper level target (at the level of the Main Keyword) which is realizable and has the ideal state' is called wisdom. That is, if the information tying figure ① and ② of diagram 3 is created from knowledge, it becomes wisdom information.

Although this can be done within the knowledge range of an individual, the collective knowledge of a large number of people would yield an increased chance of 'Thought action from mutual stimulation' and 'Awareness'. Therefore, a greater pool of wisdom, a wider range of choices and a more favorable result of the upper level target can be attained.

**Question 7-2 (reader)**

What should I do in order to create such wisdom?

**Answer 7-2 (Esaki)**

The area enclosed by the broken line in diagram 1 'Fundamental diagram of the purpose means relationship taken from the **Method of Creating Wisdom from Knowledge (DTCN Methodology)**' is the basic description of the method. (A supplementary methodology is omitted from this diagram.)

Three fundamental methodologies are found in the diagram. They are ④ 'Organization of the task in the Direction of Will', ⑧ 'Steplist that creates procedure' and ⑨ 'FBS technique for optimizing the ideal state'. Section ⑦ is the method for managing the consensus building of the procedure and framework for the wisdom of the 'Implementation Plan' and its embodiment by groups in an organization.

**Question 8 (reader):**

Fundamentally, what are the wisdom's 'Process and Component' like?

**Answer 8 (Esaki):**

First of all, when there is a problem, the problem and task ordering must be switched as indicated in ③. If the task is given from the start, then just begin from the task.

This is to prevent a hit-and-miss situation as problem solving may give rise to further problems. From the perspective of the upper level target, 'To do what?' and 'What should be done?', if measures are taken to realize the task, this will prevent the hit-and-miss situation from occurring in conventional problem solving.

Sometimes a phenomenon may occur where the problem may disappear completely when thoroughly processing it.

But for this to occur, the problem and task need to be switched. When viewing from the task, the problem becomes one of the conditions for solving it. It is then possible to compare it to other conditions and a selection can be made which can prevent the hit-and-miss situation.

**Comment 8 (reader): Indeed,****Explanation 9 (Esaki):**

Once the task has been confirmed, one will ask the following 2 questions "In brief, 'to do what?'" and "In brief, 'What needs to be done?'"

Then, one will write out as many plan of action as possible using the format 'How to do it' (verb and object) which answers those 2 questions. Next, with the expression "In order to 'How to do it' (verb and object)" and 'How to do it' (verb and object), pair all the written action plans with each other so that the purpose and means relationship will be formed.

By doing so, the **PMD method** ④ (Purpose Measure Diagram) can organize the resultant rough procedure together with the upper level target. A diagram that can be adjusted and visually indicate the 'Direction of Will' will be made.

Around the middle level (it can be higher up), the Main Keyword can be found that connects "In brief, 'what is one trying to do?'" and "What needs to be done?"

This will be the 'Word' that will help grasp the ideal state.



This is the same principle that summarizes the instruction into a word and makes the activity easier to do.

At the same time, in order to realize the solution the **Entrance Keyword** found at the bottom expression of the PMD will indicate where to start.

Simply put, this PMD (Purpose Measure Diagram) functions in the '**Direction of Will**' and when the Keyword is grasped, together with the Will vector the 'Summarized Will' will be indicated.

As indicated in ⑤, the principle of 'Information of Difference by evaluation, selection and judgment' becomes a useable, visual evaluation and judgment criteria.

In addition, central to this '**Summarized Will**' regarding the 'things and systems' and concrete proposals that should be realized, **3 extreme proposals** are usually created at each level and the most suitable proposal will be found within the triangular range of possibilities.

This will then be evaluated, studied and selection judged. Then, the principle of the 'Mechanism of evaluation, selection and judgment by Information of Difference' will become useable.

The **FBS (Function Breakdown Structure) technique** ⑨ will be used for that.

The **FBS technique** is a thinking method for creating the mechanism, component and refining its scope of the **feasibly ideal** state, while conducting a comparative evaluation and selection of what needs to be included.

An analogy of making an 'Ergonomic desk for study' has been used to illustrate the workings of these methods.

After those concerned in the organization or group decide on something inductively (through various thoughts), its refining process is uniformly embodied through deductive thought processes by using the "**Phased steplist method with inductive and deductive organization and "3-5 improvement method"**" in book.

These 2 approaches are alternately and effectively made to create, evaluate, select and embody the proposal for the most suitable state.

The **RO (Root Organizing: groundwork) Method** indicated in ⑥ configures the organizational structure of this proposal. This is not used for individuals but rather as an organizational structure for large groups and organizations. The above is the framework of the main Method of Creating Wisdom from Knowledge excluding the explanation of the supplemental methodology.

Diagram 4 describes that once the components "knowledge, **Will wisdom**, and relationship table of new knowledge from the result of wisdom" can be explained to others, they become a part of conventional knowledge.

The above is an outline explaining the "**Method of Creating Wisdom from Knowledge**". This method is something that has been done unconsciously in our daily lives, but it can now be understood visually. Also, the proposals can be adjusted to suit the needs of the parties concerned within the physically feasible range.

Furthermore, in regard to the "**Analysis Method**" found in the diagram of "**Method of acquiring knowledge**", a supplemental article "What needs to be done in order to have said an analysis was carried out" was written and it can be found at the following URL.

<http://dtn-wisdom.jp/00001-E-analysis.pdf>

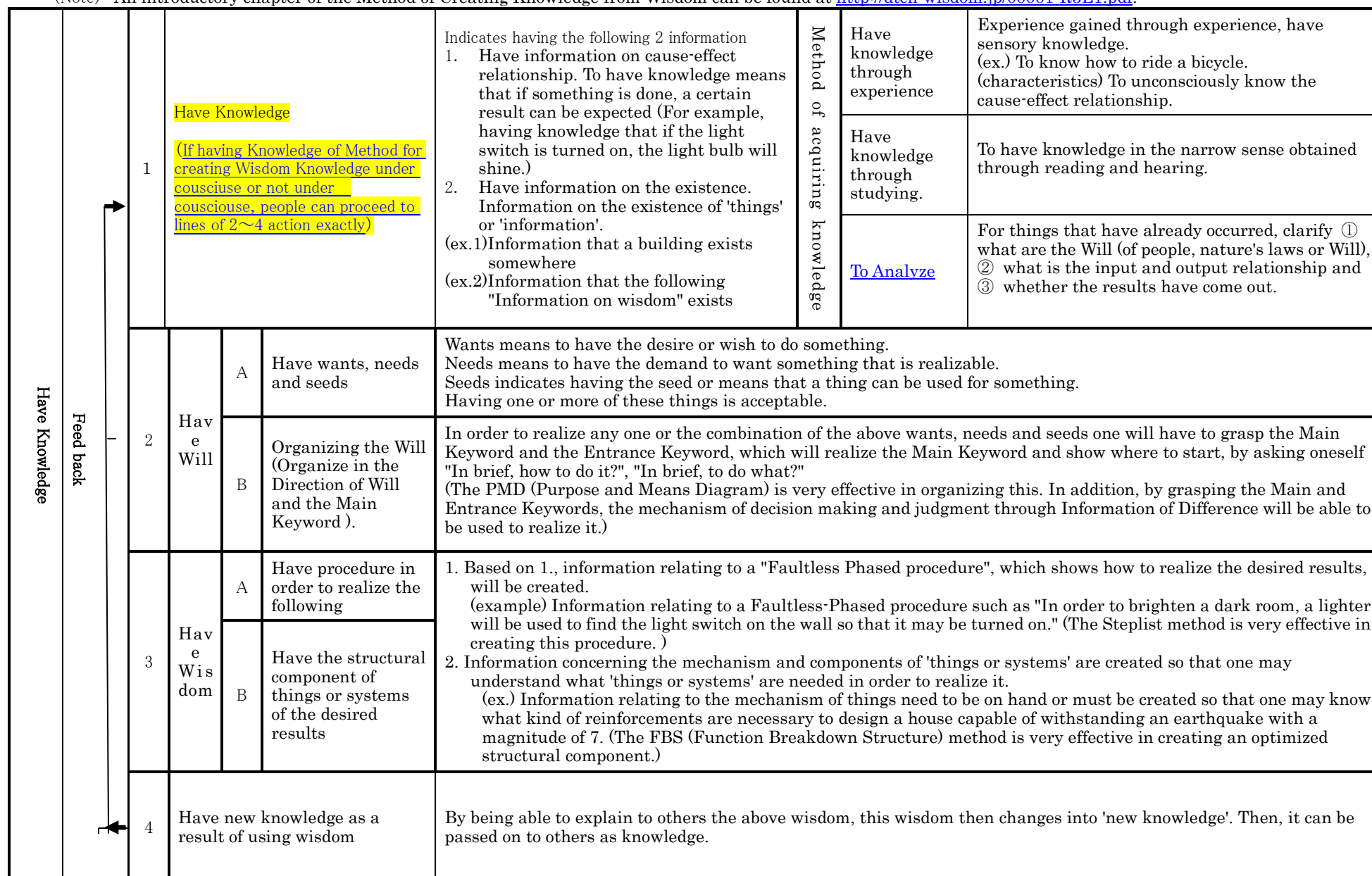
As reference, case examples that utilized the "System that creates wisdom" can be found at <http://dtn-wisdom.jp/E-nannni%20tukaeruka.html> .

#### **Comment 9 (reader)**

I would like to further understand the relationships in detail while reading that book.

**Diagram 5** Relationship of knowledge, Will wisdom and "New knowledge by result of wisdom" © Michihiko Esaki 2000/9/17, Rev4 2011-3-17

(Note) An introductory chapter of the Method of Creating Knowledge from Wisdom can be found at <http://dten-wisdom.jp/00001-R3E1.pdf>.



By returning the result which has the new information of 4. back to 'Have knowledge' of 1., it can be used to create new wisdom by the newly created 'Wisdom Engine'.