

USING VALUE ANALYSIS FOR BETTER MANAGEMENT DECISIONS

ON THE AVERAGE, MANAGEMENT DECISIONS CAN BECOME 25% BETTER, IMPROVING: MENTAL OR PHYSICAL PRODUCTIVITY, IMPROVING QUALITY, OR LOWERING COSTS.

PRESENT DECISIONS PERSIST BECAUSE OF PATTERNS AND HABITS OF THOUGHT, BECAUSE OF PERSONAL THINKING LIMITATIONS, AND BECAUSE TODAY'S THINKING IS BASED UPON YESTERDAY'S KNOWLEDGE AND PRACTICES.

I WILL PRESENT A PROGRAM WHICH HAS PROVEN SURPRISING IN ITS ABILITY TO COPE WITH THESE LIMITATIONS. I WILL SHOW THE MENTAL STEPS WHICH PRODUCE BETTER DECISIONS. I WILL ILLUSTRATE HOW THESE STEPS ARE APPLIED, AND I WILL SHOW EXAMPLES OF THE RESULTS.

SINCE THESE ARE METHODS TO IMPROVE THE EFFECTIVENESS OF THE OPERATION OF THE HUMAN BRAIN, IT IS IMPORTANT TO EXAMINE IT FOR A FEW MINUTES. MUCH IS UNKNOWN, BUT MUCH IS KNOWN. IT ACTS AS IF IT WERE COMPOSED OF BILLIONS OF ADJACENT CELLS WHICH ARE CAPABLE OF CONDUCTING MINUTE AMOUNTS OF ELECTRICITY. ANY BRAIN ACTION IS THE RESULT OF ELECTRIC CHARGES OR CHEMICAL ACTIONS GOING FROM CELL TO CELL.

EACH TIME A SITUATION HAS BEEN MET AND THE BRAIN HAS REACTED TO IT, A PATH IS FORMED, FROM CELL TO CELL. EACH TIME A SIMILAR SITUATION APPEARS THE ELECTRICAL CHARGES OR CHEMICAL ACTIONS SEEM TO GO IN THAT PRE-ESTABLISHED PATH. THIS IS PROBABLY THE MECHANISM OF HABITS AND OF ESTABLISHED THINKING PATTERNS. ELECTRIC OR CHEMICAL CHARGES, GOING THROUGH THESE PATHS CONSTITUTE THOUGHT, MEMORY, VALUES, DECISIONS.

AT BIRTH THE HUMAN BRAIN IS A LITTLE PROGRAMMED, FROM PARENTS GENES, TO ACCOMODATE NEEDED PHYSICAL FUNCTIONS AND SURVIVAL NEEDS, BUT ACTS AS THOUGH IT HAS BILLIONS OF AVAILABLE UN-PROGRAMMED CELLS AWAITING THEIR FIRST IMPULSE. SOON THE PROGRAMMING STARTS, AND PATHS, WHICH BECOME PREFERRED PATHS; FROM CELL TO CELL ARE FORMED BY THE MILLIONS. THESE ESTABLISH THE INDIVIDUALS VALUES, HOW HE THINKS, WHAT HE THINKS IS RIGHT AND BEST AND HOW TO REACT TO VARIOUS SITUATIONS. THEY BASICALLY BECOME LIFETIME GUIDES AND CONTROLS. THESE PRE-ESTABLISHED BRAIN PATHS OFTEN HEAVILY LIMIT FREEDOM TO DEVELOP INNOVATIVE APPROACHES TO IMPORTANT PROBLEMS. THUS, IT HAS BEEN FOUND THAT WHEN SOMETHING VERY DIFFERENT, VERY NEW AND PERHAPS VERY MUCH BETTER IS REQUIRED TO MEET PRESENT NEEDS, BETTER RESULTS COME WHEN THE PROBLEM IS PUT INTO A FRAMEWORK THAT WILL AVOID THE PREESTABLISHED BRAIN PATHS.

HOW MIGHT WE DOUBLE THE RESULTS PRODUCED BY THIS GREAT RESOURCE - THE HUMAN BRAIN?

PROVIDE A PLAN THAT WILL FREE MORE OF IT FROM THE PAST AND FOCUS IT UPON PRESENT NEED IN FUNCTION TERMS. THE VALUE ANALYSIS FUNCTION BASED JOB PLAN WILL DO IT.

OVERALL PROCEEDURE FOR USE IN ANY DECISION AREA - STUDY WHAT WE ARE TRYING TO DO, NOT WHAT WE ARE DOING. LATER COMES REVIEW OF "WHAT WE ARE DOING".

THE VALUE ANALYSIS JOB PLAN

STEP 1. "MIND TUNING" WITH REFERENCE TO THE JOB, AND WITH REFERENCE TO EACH INDIVIDUAL INVOLVED IN THE THINKING PROCESS. PUT INTO SIMPLE WORDS "EXACTLY WHAT WE WANT TO ACCOMPLISH WITH THE PROJECT".

NEXT, IN "MIND TUNING" THE THINKING GROUP, WHETHER IT BE TWO OR SIX OR MORE DO NOT ASSUME THAT EACH IS TRYING TO DO EXACTLY WHAT THE PROJECT REQUIRES AT EACH INSTANT. THEY ARE LIKE A 6 HORSE TEAM, AND UNLESS THEY ARE TRYING TO DO EXACTLY/THING AT EACH INSTANT, THEIR BRAIN POTENTIAL IS SACRIFICED, AND PERHAPS CONSTRUCTIVE MENTAL ENERGY FROM ANOTHER BRAIN IS NULLIFIED. THE LEADER MUST OFTEN INVEST FROM 15 MINUTES TO 2 HOURS TO ACHIEVE THIS EFFECTIVE UNIFIED "SENSE OF DIRECTION" OF ALL AT ALL INSTANTS OF TIME.

STEP 2 IS GATHERING AN ABUNDANCE OF INFORMATION AND KNOWLEDGE ABOUT THE SITUATION. THIS IS OBJECTIVE, AND NEED NOT BE INFLUENCED BY PREVIOUS EXPERIENCE AND PREFERENCE . THIS STEP HAS 3 VITAL PARTS.

- A GENERAL KNOWLEDGE
- B FUNCTION KNOWLEDGE
- C COST KNOWLEDGE - IF A COST RELATED PROJECT, AND MOST PROJECTS ARE.

STEP 3 IS DEVELOPING COST/FUNCTION RELATIONSHIPS. FROM THE COMPLETE KNOWLEDGE OF THE FUNCTIONS , AND OF COSTS, DEFINITE RELATIONSHIPS BETWEEN COST AND FUNCTION ARE DEVELOPED.

STEP 4 IS ANALYZING THE KNOWLEDGE AND COST/FUNCTION RELATIONSHIPS AND SETTING THE EXACT PROBLEM TO BE SOLVED. FOR EXAMPLE, THE EXACT FUNCTIONS TO BE ACCOMPLISHED AND THE MAXIMUM AMOUNT TO PAY FOR THEM IS DETERMINED. IT IS THEN PUT IN THE FORM OF A QUESTION SUITABLE FOR DEPTH CREATIVITY. IT ALWAYS STARTS WITH THE QUESTION "HOW MIGHT WE ... "? "HOW MIGHT WE INCREASE THE OUTPUT OF THAT MACHINE FROM 20 TO 50 PER HOUR?"

"HOW MIGHT WE REDUCE THE COST OF THAT PRODUCT FROM 1000 TO 600 DOLLARS"?

"HOW MIGHT WE REDUCE REJECTS FROM 10 TO 1 PER DAY?"

EXPERIENCE HAS SHOWN US THAT THE INNOVATIVE MIND PRODUCES BETTER IF IT HAS AN EXACT PROBLEM OR GOAL, NOT AN ABSTRACT OBJECTIVE.

STEP 5 IS CREATIVE AND INNOVATIVE. NOW WITH THE EXACT STATEMENT OF WHAT IT IS DESIRED TO ACHIEVE CLEARLY IN VIEW PROFESSIONAL QUALITY OF CREATIVITY PROCEEDS. THIS MUST BE DEEP, INTENSIVE AND EXTENSIVE CREATIVITY, FOLLOWING THE SYSTEM OF WITHHELD JUDGEMENT. TO ACHIEVE THE RESULTS WHICH THE PROBLEM IS NOW SET UP FOR, IT MUST BE ABSOLUTELY UNRESTRAINED AND UNLIMITED.

STEP 6 IS SELECTING ONE OR MORE APPROACHES WHICH HAVE INTERESTING PROMISE AND IMPROVING THEM UNTIL THEY FULLY MEET THE NEED OF THE SITUATION.

USE OF THIS COMPUTER-LIKE SYSTEM - THE JOB PLAN MOVES THE MIND CONSTANTLY INTO OBJECTIVE BUT INFORMED PATHS. IT PREVENTS ACTING ON PARTIAL INFORMATION,

DOING WHAT "EXPERIENCE" DICTATES,
 USING ONLY THINKING FROM THE PAST,
 USING BASICALLY OLD APPROACHES.

IT GETS NEW APPROACHES,
 MORE CREATIVE AND INNOVATIVE IDEAS
 MUCH BETTER OVERALL THINKING.

THE PURPOSE OF THIS SYSTEM IS TO HELP EACH PERSON GET MORE OF THE MENTAL RESULTS THAT HE WANTS.

EXAMPLE 1. USE IN THE AREA OF IMPROVING THE DECISION MAKING OF TOP MANAGEMENT. A VERY SUCCESSFUL COMPANY - SOUTHERN CROSS STEEL WAS TOLD OF THE VA METHODOLOGY BY THE EXPERIENCED CONSULTANT, KIETH VAN HEERDEN. THEY WERE IMPROVING THEIR PLANT AND PROCESSES TO STAY UP-TO-DATE AND PROFITABLE. MANAGEMENT DECIDED TO IMPROVE THEIR OWN THINKING BY TAKING TRAINING IN THE METHODOLOGY. THEY DELEGATED THEIR DECISION-MAKING FOR 5 DAYS, AND LEARNED THE VA THINKING SYSTEM.

THIS TOP MANAGEMENT GROUP HAD GREAT KNOWLEDGE OF STEEL-MAKING AND STEEL USE. THEY GOT MEANINGFUL COST KNOWLEDGE FROM THEIR PEOPLE. THEY ESTABLISHED THEIR PROJECT. "HOW MIGHT WE EXCEL IN STEEL-MAKING AND IN PROFIT-MAKING TEN YEARS FROM NOW"? THEIR CREATIVITY WAS FREE-WHEELING AND TRULY ASTOUNDING. THEN THEY PROCEEDED TO THE SELECTION AND IMPROVEMENT AND IMPLEMENTATION OF THE BEST APPROACHES. SOME OF THE RESULTS FOLLOW:

1. 32% ANNUAL INCREASE IN THE OUTPUT OF STEEL WITH ONLY 2% INCREASE IN MANNING, WAS SECURED.
2. 16% CONTINUING ANNUAL REDUCTION IN MELTSHOP ELECTRICAL BILL WAS ESTABLISHED.
3. COST OF A CAPITAL-INTENSIVE EXPANSION WHICH THE ORIGINAL PROJECT TEAM FELT HAD BEEN THOROUGHLY TRIMMED WAS REDUCED 38%.
4. A SCHEDULE OF SEMINARS WHICH WOULD PROVIDE THE VA THINKING METHOD TO ALL OF THEIR PROFESSIONAL EMPLOYEES, WAS ESTABLISHED.
5. A FACILITIES IMPROVEMENT PROGRAM UNDER WAY, WAS JUDGED BY BETTER THINKING TO BE ILL ADVISED AND WAS STOPPED.

NOW THE COMPANY IS PROGRESSING ASSUREDLY AND PROFITABLY INTO THE FUTURE.

EXAMPLE 2. USE IN AREA OF IMPROVING THE DECISIONS OF PROFESSIONAL MANAGERS AND OPERATORS. TO BRING THE BENEFITS OF FUNCTIONAL CREATIVE DECISION MAKING THRUOUT THE ACCOUNTING DEPARTMENT, THE ESSENTIAL 5 DAYS MINIMUM OF TRAINING WAS SCHEDULED . "LIVE" PROJECTS ARE ALWAYS USED IN TEACHING FUNCTION THINKING. INITIALLY, SOME ACCOUNTANTS QUESTIONED WHAT THEY WOULD USE FOR "LIVE" PROJECTS. THE ANSWER FROM THE COMPANY PRESIDENT SET THEM AT ONCE ON THE EFFECTIVE COURSE.

HE TOLD THEM, "YOUR PROJECTS WILL BE YOUR OWN WORK. EVERY DOLLAR YOU SPEND IS TO ACCOMPLISH SOME FUNCTION. YOU WILL IDENTIFY THOSE FUNCTIONS. YOU WILL DETERMINE THE AMOUNT OF COST GOING INTO THEM NOW - RELATING COST TO FUNCTION. THEN YOU WILL STUDY THOSE FUNCTIONS, JUST AS THE ENGINEERS STUDY THE FUNCTIONS OF PRODUCTS. IS THAT FUNCTION STILL NEEDED? BY WHOM? FOR WHAT PURPOSE? HOW OFTEN? VERY CREATIVELY, HOW ELSE MIGHT WE GET THE NEEDED KNOWLEDGE? ETC".

AS A START, THEY MADE A LIST OF THE THINGS THEY DO, WHICH COST MONEY. FROM THERE THEY MOVED THINKING INTO EXACTLY WHAT FUNCTIONS WERE ACCOMPLISHED BY EACH, HOW MUCH IT WAS COSTING - COST-FUNCTION RELATIONSHIPS. THEN CREATIVE OPPORTUNITIES FOR IMPROVEMENTS WERE DEVELOPED.

BECAUSE IT MIGHT HELP SOME OTHERS TO START THEIR NON-PRODUCT FUNCTION STUDY, A LISTING OF SOME OF THE NAMES FROM WHICH THESE ACCOUNTING MANAGERS STARTED, IS INCLUDED.

STANDARD AND FINANCIAL REPORTING, STOCK VALUATIONS, DEBTORS POLICY, CAPITAL EXPENDITURES, DEPRECIATION, BUDGETING, CODE OF ACCOUNTS, INTER/BRANCH TRANSACTIONS, RENTAL POLICY, INTEREST POLICY, CREDITORS POLICY, FOREIGN TRANSACTIONS, CENTRAL CHARGES, PLANNING AND FORECASTING, STAFF PLANNING, DATA PROCESSING, INTERGROUP CLEARANCES, TAX PROCEEDURES, COSTING, PROFIT ESTIMATES, ETC. ETC.

EXAMPLE 3. USE IN AREA OF DECISION MAKING BY MANAGER OF LARGE PROJECT. AN ENORMOUS DAM, ALMOST LARGE ENOUGH TO BE "BRAZILLIAN" WAS RECENTLY BUILT IN WALLA WALLA WASHINGTON USA. IT WAS 500 METERS LONG AND 60 METERS MAXIMUM HEIGHT. IT WAS BUILT BY THE UNITED STATES GOVERNMENT. IT WAS DESIGNED, DRAWINGS WERE MADE, BIDS WERE SECURED AND A CONTRACTOR SELECTED. \$24,000,000 - 3 years.

UNITED STATES LAWS NOW REQUIRE THAT ON SUCH A LARGE EXPENDITURE, AT LEAST A MINIMUM VALUE ANALYSIS STUDY BE MADE. IN THIS CASE IT WAS \$40,000. WILLIAM L KELLEY WAS THE MANAGER INVOLVED. HE CAUSED THINKING TO FOLLOW THE STEPS OF THE VALUE ANALYSIS JOB PLAN.

"EXACTLY WHAT ARE WE TRYING TO DO?" THEY AGREED "GET THAT CONCRETE IN PLACE AND PROPERLY SET, USING TODAY'S WORLD'S BEST PRACTICES". THEY SET FOR THEIR EXACT CREATIVE TASK "HOW MIGHT WE DO THAT JOB FOR \$12,000,000 INSTEAD OF \$24,000,000.?" THEY HAD DEEP CREATIVITY. THEY SEARCHED, THEY LISTENED, THEY LEARNED. THEY TESTED, THEY PROVED. A CONSTRUCTION TYPE WHICH REMOVED CONSTRUCTION COST, TIME AND COMPLICATION WAS FOUND, AND PROVEN SUITABLE. THE DAM WAS BUILT.

COST INSTEAD OF \$24,000,000 BECAME \$16,000,000. TIME REQUIRED, INSTEAD OF 36 MONTHS BECAME 16 MONTHS.

A QUANTUM FORWARD JUMP IN THE ART OF DAM CONSTRUCTION WAS CREATED, THE METHOD OF ROLLER COMPACTED CONCRETE, WAS USED, ELIMINATING ENORMOUS PERIODS OF WAITING TIME AND OTHER COSTLY FACTORS.

AS A FURTHER "FROSTING ON THE CAKE" THE UNITED STATES CORPS OF ENGINEERS WHICH HAD SUPERVISION OF THE CONSTRUCTION WORK, ADVISED MR KELLY THAT SINCE THEIR PERIOD OF SUPERVISORY WORK WAS SHORTENED FROM 36 MONTHS TO 16 MONTHS, THEY HAD EFFECTED ANOTHER \$2,000,000 SAVING OF CASH. REAL BENEFIT FROM THE \$40,000 OF VA WAS \$10,000,000, AND 20 MONTHS MORE USE OF THE DAM.