

# EVALUATED PROFESSIONAL DEVELOPMENT SKILLS

## S.T.E.M.

### RESEARCH STUDY – Data Management skill-sets supporting Assessments, Data Analysis, Research, etc.

- Develop **RATIO ANALYSIS** criteria to compare outcome results w/performance objectives
- Conduct a **NEEDS ANALYSIS** to determine what is required to fulfill a defined need, objective, etc.
- Conduct a **GAP ANALYSIS** to determine Operational Capabilities / Performance Shortfalls
- Establish / Determine Current **BASELINE** Performance / Outcome level
- Conduct a **TREND ANALYSIS** to determine Short/Long-term (*Community*) Impact - **Trajectory**
- Conduct a **FEASIBILITY STUDY** to objectively & rationally determine the practicality of e.g. a project, course of action, etc.
- Conduct a **RISK MANAGEMENT** Study to Identify & Mitigate Risk, e.g. **Critical Path Analysis**
- Develop **FORMATIVE / SUMMATIVE** outcome measures to quantify performance, progress, status, etc.

### DATA MANAGEMENT – Defined data collection & analysis processes - **Audit Trails**

- Establish processes to **CAPTURE, CLASSIFY, MAINTAIN DATA / INFORMATION**, e.g. Lecture / Meeting Notes, Administrative Record-keeping, Research Studies, etc.
- Determine office / individual responsible for **COLLECTING / MANAGING DATA**
- Objectively quantify performance data to **VALIDATE OUTCOME MEASURES**
- Determine **DATA SOURCE** / Frequency & Method of Data Capture

### SYSTEMS THEORY - Analysis of how various Distinct Parts interact to form a Complex Whole

- **APPLIED SYSTEMS THEORY**; Determine interdependent relationships; discover patterns, objectives, motives, influence, dependencies, tolerances, etc. - Understand basic System Principles, Complex Structural Models / Coupling, etc.
- **1-REPORTING (JOURNALISM)** - identify objectives matched to how (*Topic / Subject*) [it] operates internally, (*e.g. design efficiency, energy / motivation, resources, etc.*) to achieve success
- **2-REPORTING (JOURNALISM)** – determine how (*Topic / Subject*) [it] Operates Externally based upon relationships with (*e.g. coordination with, influence over, impact to, dependence upon, etc.*) its Environment (*e.g. other systems*)
- **3-REPORTING (JOURNALISM)** - determine the source(s) of "Power" that supports / facilitate outcome goals, defined as any factor that Drives an intended outcome; (*e.g. force, money, influence, demand, momentum, need, intent, belief, etc.*)
- **4-REPORTING (JOURNALISM)** - objectively demonstrate / illustrate how each outcome affects your audience(s). Objectively illustrate the Past, Present & Future (*Timeline*) impact of each intended outcome

### SCIENTIFIC ANALYSIS - Modeling Analysis Criteria / Data Illustrations / Research Study

- Design / Construct a **PHYSICAL** or **THEORETICAL MODEL** possessing objectively defined parameters, clearly illustrated considerations
- Develop / apply functional rules using input / output tables & **GRAPHIC REPRESENTATIONS** on a coordinated scale / system
- Demonstrate understanding of **EXPERIMENTAL** or **THEORETICAL PROBABILITY**
- Concepts of **TRANSITIVE RELATIONSHIPS** to illustrate how change in one Variable Effects Related Areas / Functions ( $A = B$  &  $B = C \dots \text{then } C = A$ )
- **APPLIED CONCEPTS**; time, chronology, inter-connection, change, conflict, complexity, etc. to determine **PATTERNS**, analyze **RELATIONSHIPS**, etc.
- Use appropriate **SYMBOLS & TECHNICAL TERMINOLOGY** within a Scope of Practice to Calculate, Interpret, Transcribe & Communicate Information, data, Observations, etc.
- **RESEARCH** - a Creative Process; a Systematic approach to capture & interpret data to increase understanding, support theorems, develop new theories, plan action, etc.

## ENGINEERING – Engineering Design / Construction

- Develop / Interpret a **CONSTRUCTION / MODELING SCHEMATIC, BLUEPRINT**, etc.
- Develop a **PROJECT / IMPLEMENTATION PLAN**, e.g. Resources, Procedures, Communication, Oversight, etc.
- Sequence / Map **POTENTIAL HAZARDS** / challenges, demonstrate appropriate precautions required for task
- Use tools for processes of Cutting, Shaping, Combining, Forming, Fastening, Joining, Sequencing e.g. materials, media presentations, etc.
- Determine how systems interact to facilitate efficient & accurate **INFORMATION / PRODUCTION FLOW**
- Determine Constraints, Parameters, Tolerances, Limitations, Boundaries, Standards, Barriers, Restrictions, etc.
- Design / Fabricate / Model new tooling, fixtures, procedures, models, structure, functions, recipes, programming, etc. according to Required Performance Specifications
- Use Tools / Devices to **MEASURE PHYSICAL PROPERTIES**; mass, weight, temperature, dimensions, area, volume, density, etc.

## FINANCE / MONEY MANAGEMENT - Money Management Skills

- Develop / Design an Economic / Financial Forecast Model
- Analyze / Calculate Financial Risk vs. Benefit / Return
- Determine Impact of Current / Projected Economic Conditions affecting Financial Outcomes
- Describe / Calculate Interest, Fees, etc.
- Calculate Inventory / Operational Cost Projections

# MANAGEMENT & LEADERSHIP

## OUTCOME OBJECTIVES - Define Outcome Objectives / Performance Standards as quantified Numeric Measures

- Establish quantified & clearly defined **OUTCOME OBJECTIVES**
- Establish common & clearly articulated **PERFORMANCE STANDARDS**

## PLANNING – Develop step-by-step plans, quantified measures, clearly defined performance expectations

- Develop **QUANTIFIED MEASURES** for all process / performance outcomes
- Determine **IMPLEMENTATION / ADMINISTRATION PROCEDURES**, e.g. sequencing, roles & responsibilities, etc.
- Determine outcome **MEASURES TO BE CAPTURED**

## EXECUTION – Performance measures for actual execution of plans; synergy, integration, control & response

- **IMPLEMENT** Step-by-Step Procedures; Sequencing, Roles & Responsibilities, etc.
- **CAPTURE** Performance Outcomes of all Participating Individuals, Processes & Management Functions
- **COMPENSATE** for Uncontrolled Factors that Affect Achievement of Goals / Objectives
- Determine **RULES OF ENGAGEMENT**: Participating Individuals, Common Management Functions & Protocols

# COMMUNICATION

## CIVIC COMMUNICATION / FEEDBACK - Comprehensive communication strategies with well-defined feedback loops

- Develop **COMPREHENSIVE COMMUNICATION STRATEGY**; e.g. mediums, frequency, distribution, feedback, etc.
- Develop well defined management processes for **REMEDICATION OF FEEDBACK**

- Establish **TWO-WAY COMMUNICATION / INFORMATION SHARING** strategies
- Determine / Illustrate Step-by-Step **PROCEDURES**; e.g. Flowchart, Texts, Standard Operating Procedures, Manuals, Job Descriptions, etc.
- Produce a **DOCUMENT / REPORT** appropriately formatted detailing a position / fulfills specific reporting requirement(s), etc.
- **GRAPHIC DESIGN**: Visual Communication, Illustration, Messaging, Outreach, etc. through the use of Typography, Space, Image & Color

### **CIVIC ENGAGEMENT – Efficient / effective communication, social engagement; empathy, influence**

- Develop **OUTREACH STRATEGIES** to maximize Awareness / Participation / Involvement / Support / Camaraderie
- Identify, Explain, Illustrate a significant Policy / Procedure / Theory / **ISSUE OF IMPORTANCE OR CONCERN**
- Develop **PUBLIC RELATIONS** Strategy to gain support / influence Opinion

## **INSTRUCTIONAL PLANNING & STUDENT EVALUATION – Instructors & Service Providers**

### **INSTRUCTIONAL DELIVERY – Instructional Theory, Active Learning design models**

- Design instructional schedule with **CONSISTENT / STRUCTURED Routines & Expectations**
- Develop curriculum / instructional delivery strategy to achieve high rates of **SOCIAL ENGAGEMENT**
- Develop curriculum & instructional delivery strategy to achieve high rate of **SOCIAL REINFORCEMENT**
- Develop instructional strategies that provide **TANGIBLE REINFORCEMENT** following evaluated performance

### **INDIVIDUALIZED EDUCATION / DEVELOPMENT PLAN – Planning strategies to address Unique Individual Needs**

- Develop Instructional Strategies to **MOTIVATE PERFORMANCE**
- Personalize Instruction to **ACCOMMODATE DEVELOPMENTAL DIFFERENCES**, self-paced, self-corrective designs, etc.
- Incorporate **SUPPLEMENTAL ASSESSMENTS** (*formative / summative*) designs to track Individual Performance / Progress
- Design **MASTERY-BASED INSTRUCTIONAL APPROACH**, requiring Mastery of Prerequisite Skills prior to Progression
- **ORGANIZERS** presented in Advance of Learning to Explain / Integrate preceding Concepts & Principles, bridging new material w/existing ideas
- Develop **TAXONOMIES** (*descriptive verbs*) to define Performance Standards, Instructional / Performance Outcomes
- Determine (*e.g. visual / auditory / tactile*) tendencies to identify **PREFERRED LEARNING STYLE**
- Implement aggressive **FEEDBACK** processes following each instructional task
- Instructional assessment design to identify **PREREQUISITE SKILLS** needed for maximum comprehension

### **MULTI-DISCIPLINARY EVALUATION – Management / Professional skills supporting Multi-Disciplinary teams**

- Develop **COLLABORATIVE SUPPORT STRATEGIES** across Multiple Support Functions, Agencies, etc.
- Illustrate both **VERTICAL & HORIZONTAL ARTICULATION** Objectives
- Determine **SPECIAL EDUCATION SERVICES QUALIFICATION**
- Objectively determine **PROBLEM AREAS** experienced by (*Individual, Group, Community, etc.*)
- Determine **STRENGTHS & WEAKNESSES**, identify activities where the (*Individual / Community*) Excels / Experiences Difficulty, etc.
- Determine (*Individual / Community*) **PREFERRED LEARNING STYLES** (*receipt of information*)
- Determine (*Individual / Community*) **GOALS & PRIORITIES**
- Determine **RELATED SUPPORT SERVICES** needed, e.g. Speech, Physical, Occupational, Counseling Services, Special Equipment / Assistive Technology, etc.

# COUNSELING / CIVIC SUPPORT - Administrators & Service Providers

## COUNSELING / SERVICE ACCOMMODATIONS – Structured Service Delivery Processes & Procedures

- Identify **MEETING / SERVICE DELIVERY** details; frequency...duration...participants...location...special need considerations, etc.
- Clearly Identify each Meeting / Session / Support / Service Delivery Objective
- Clearly Identify (*Individual / Community*) Skills, Needs, Behaviors, etc. to be Addressed, Developed, Gained, etc. from Service(s) Delivered
- Illustrate **ACCOMMODATIONS / ADAPTATIONS** to address differences in Age, Culture, Special Needs, etc.
- Objectively define **PROBLEMS / CHALLENGES** to be **RESOLVED / ADDRESSED**, (*explain factors / circumstances originally considered in determining need*)

## INDIVIDUAL / GROUP INTERVENTION - Remediation of identified performance / behavioral problem

- Illustrate how Identified Problems are **MAINTAINED BY CURRENT SOCIAL / ENVIRONMENTAL INFLUENCES**
- **ORIENT INTERVENTION** Toward Current, Specific Problem, Easily Understood by Participants
- Design Intervention to **TARGET INTERACTION SEQUENCES** that Maintain Targeted Problem(s)
- Design intensive intervention requiring **CONTINUED EFFORT** by Everyone on daily / weekly basis
- Incorporate Technical Assistance strategies to Address Problems Across **MULTIPLE CONTEXTS**