

## Chapter 9. Appendices

### Appendix A

#### Levels of the Cognitive Domain

adapted with the permission of the MacMillan Company from Measurement and Evaluation in Testing, 6<sup>th</sup> ed. By Norman E. Gronlund

	<b>Examples of General Instructional Objectives</b>	<b>Examples of Verbs for Stating Learning Outcomes</b>
<b>Knowledge</b> Evidence of learning: The student recalls information	Knows terms and facts Knows principles Knows methods and procedures	Defines, describes, identifies, labels, lists, matches, names, outlines, reproduces, selects
<b>Comprehension</b> Evidence of learning: The student explains information	Understands facts and principles Interprets charts and graphs Justifies methods and procedures Estimates implied consequences	Converts, defends, distinguishes, estimates, explains, extends, generalizes, gives examples, infers, paraphrases, predicts
<b>Application</b> Evidence of learning: The student transfers learning Into new situations	Applies principles and theories Solves problems Creates charts and graphs Demonstrates use of a procedure	Changes, computes, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates
<b>Analysis</b> Evidence of learning: The student breaks down material Into its component parts	Recognizes assumptions Recognizes fallacies Distinguishes facts from inference Evaluates relevance of data Analyzes organizational scheme	Breaks down, diagrams, differentiates, discriminates, identifies, illustrates, infers, outlines, points out, relates, selects, separates, subdivides
<b>Synthesis</b> Evidence of learning: The student combines parts to form a meaningful whole	Composes a well-organized theme Proposes a plan Integrates new learning Formulates a classification scheme	Categorizes, combines, compiles, composes, creates, devises, designs, generates, modifies, plans, rearranges, summarizes
<b>Evaluation</b> Evidence of learning: The students judges using criteria	Judges consistency Judges adequacy of conclusions Judges value by criteria and standards Creates and uses criteria to judge	Appraises, compares, concludes, contrasts, criticizes, justifies, interprets, relates, supports

## Levels of the Affective Domain

adapted with the permission of the MacMillan Company from Measurement and Evaluation in Training, 6<sup>th</sup> ed. By Norman E. Gronlund

	<b>Examples of General Instructional Objectives</b>	<b>Examples of Verbs for Stating Learning Outcomes</b>
<b>Receiving</b> Evidence of learning: The student attends to particular Phenomena or stimuli	Listens attentively Shows sensitivity Accepts differences of culture	Asks, chooses, describes, follows, gives, holds, identifies, replies, uses
<b>Responding</b> Evidence of learning: The student participates actively	Complies with rules Participates in Discussion Volunteers; helps others Shows interest	Answers, assists, complies, discusses, greets, labels, performs, practices, recites, tells, writes
<b>Valuing</b> Evidence of learning: The student attaches value to a(n) Object, phenomena or behavior	Appreciates the role of science Shows concern for others Demonstrates commitment to social improvement	Completes, describes, differentiates, follows, forms, initiates, invites, justifies, proposes, shares
<b>Organization</b> Evidence of learning: The student resolves conflicts between values	Recognizes the need for balance between freedom and responsibility Accepts responsibility for own behavior Accepts own strengths and limitations	Adheres, alters, arranges, combines, defends, generalizes, integrates, modifies, orders, synthesizes, prepares, relates
<b>Characterization by a Value or Value Complex</b> Evidence of learning: The student displays behavior consistent with value system	Displays safety consciousness Demonstrates self-reliance Cooperates in group work Maintains good health habits Demonstrates self-discipline Uses objective approach	Acts, discriminates, displays, influences, modifies, performs, practices, proposes, qualifies, questions, solves, verifies, revises, serves

## Levels of the Psychomotor Domain

adapted with the permission of the MacMillan Company from Measurement and Evaluation in Testing, 6<sup>th</sup> ed. By Norman E. Gronlund

	<b>Examples of General Instruction Objectives</b>	<b>Examples of Verbs for Stating Learning Outcomes</b>
<b>Perception</b> Evidence of learning: The student obtains cues to guide motor activity	Recognizes malfunction of equipment by sound	Chooses, describes, detects, identifies, differentiates, isolates, relates, separates, selects
<b>Set</b> Evidence of learning: The student shows readiness to take a particular action	Knows sequence of steps in performing a procedure Demonstrates proper procedure for entering data in computer program Shows desire to complete a treatment efficiently	Begins, displays, explains, moves, proceeds, reacts, responds, shows, starts, volunteers
<b>Guided Response</b> Evidence of learning: The student initiates action and uses trial and error	Performs budget calculations as demonstrated Determines best sequence for display of quality improvement poster	Assembles, builds, calibrates, constructs, displays, dissects, fastens, fixes, manipulates, organizes, performs
<b>Mechanism</b> Evidence of learning: The student has made a habit of proper performance and performs with confidence and proficiency	Sets up for program monitoring Documents using computer	Same as for guided response
<b>Complex Overt Response</b> Evidence of learning: The student demonstrates skillful performance of complex pattern, accurately and smoothly	Navigates complex decision support system	Same as for guided response
<b>Adaptation</b> Evidence of learning: The student modifies a pattern to fit a situation	Troubleshoots equipment Modifies project based on team's response	Adapts, alters, changes, rearranges, reorganizes, revises, varies
<b>Origination</b> Evidence of learning: The student creates a pattern to fit a situation	Creates a simple device to organize data files Originates a new way to document an action	Arranges, combines, composes, constructs, designs, originates, creates

## **Appendix B: A Thumbnail Sketch of the Myers-Briggs Type Inventory™ (MBTI) Directions for Self-Assessment**

1. On the following page you will find a chart of the Myers-Briggs Type Indicators. Altogether, there are 36 pairs, 9 pairs for each of the 4 dimensions of the MBTI:

Extraversion (E)	~ Introversion (I)
Sensing (S)	~ Intuition (N)
Thinking (T)	~ Feeling (F)
Judgment (J)	~ Perception (P)

2. Each of the four dimensions of the MBTI can be described in a general way in terms of questions that the dimension answers about a person's tendencies.

### **Extraversion (E) – Introversion (I):**

How do you typically orient to the outside world and the people and stimuli in it?

Do external stimuli influence you greatly (E) or very little (I)?

### **Sensing (S) – Intuition (N):**

How do you typically acquire information?

Do you prefer to build from hands-on and details (S) or take a more “top-down”, general to specific approach (N)?

### **Thinking (T) – Feeling (F):**

How do you typically make decisions?

Do you choose based on the logical consequences (T) or based on what you feel like doing and how you believe your decision will affect the feelings of others (F)?

### **Judgment (J) – Perception (P):**

How do you typically make sense of your environment?

Do you like to organize the environment and come to closure (J) or do you prefer to keep things flexible and keep on gathering information (P)?

3. Look at each pair of indicators. Choose the indicator that most closely represents your typical inclination. Mark your choice with an X in the column next to the indicator you choose. Try to make a choice, but if you really believe neither is more typical of you, do not mark a choice. To make a choice in #8 and #9 of each dimension, you will need to apply a general understanding of the characteristics which the dimension describes. Refer to the information above to clarify the characteristics pertinent in each dimension.
4. Score yourself following the instructions on the MTBI Score Sheet.
5. The information following the Score Sheet presents precepting assets and precepting limitations of each type.

You may not have a clear and consistent preference in each dimension, but most people have a clear preference in at least one dimension. None of the preferences or types is good or bad, healthy or unhealthy. Each has assets and liabilities.

## A Thumbnail Sketch of the Myers-Briggs Type Indicator

### Extraversion-Introversion

	Extraversion	✓	Introversion	✓
<b>E-I #1</b>	I often feel drawn in to events, conditions and other stimuli going on around me		I often feel drawn inward by external events and intrusions	
<b>E-I #2</b>	I often feel energized by other people and external experiences		I often feel energized by inner resources, internal experiences	
<b>E-I #3</b>	I often act first, and then (maybe) reflect		I often reflect first, and then (maybe) act	
<b>E-I #4</b>	I am often friendly, talkative and easy to get-to-know		I am often reserved, quiet and hard-to-know	
<b>E-I #5</b>	I often express my emotions		I often bottle up my emotions	
<b>E-I #6</b>	I thrive on interactions with others		I treasure my privacy	
<b>E-I #7</b>	I tend to get attracted to many interests at the same time		I tend to select a few interests at a time and get into them in depth	
<b>E-I #8</b>	At times people who are more introverted than I seem to think I'm shallow		At times people who are more extraverted than I seem to think I'm withdrawn	
<b>E-I #9</b>	I sometimes feel a need for more introversion to balance me		I sometimes feel a need for more extraversion to balance me	

### Sensing-Intuition

	Sensing	✓	Intuition	✓
<b>S-N #1</b>	I tend to look at specific parts and pieces of a situation		I tend to look at patterns and relationships in a situation	
<b>S-N #2</b>	I tend to live in the present, enjoying what is there		I tend to live toward the future, anticipating what might be	
<b>S-N #3</b>	I prefer handling practical matters		I prefer imagining possibilities	
<b>S-N #4</b>	I like things that are definite and measurable		I like opportunities for being inventive	
<b>S-N #5</b>	I tend to start at the beginning and take a step at a time		I tend to jump in anywhere and leap over steps	
<b>S-N #6</b>	I usually read instructions and notice detail		I usually skip directions and follow hunches	
<b>S-N #7</b>	I like set procedures and established routines		I like change and variety	
<b>S-N #8</b>	Sometimes I seem materialistic and literal-minded to persons who are more intuition-oriented than I		Sometimes I seem fickle, impractical and a dreamer to persons who are more sensing-oriented than I	
<b>S-N #9</b>	I sometimes feel that I need more intuition-orientation to balance me		I sometimes feel that I need more sensing-orientation to balance me	

### Thinking-Feeling

	Thinking	✓	Feeling	✓
<b>T-F #1</b>	I often see things as an onlooker, from outside a situation		I often seen things as a participant, from within a situation	
<b>T-F #2</b>	I usually take a long view of events		I usually take an immediate and personal view of events	
<b>T-F #3</b>	I often will spontaneously find flaws and criticize		I often will spontaneously appreciate	
<b>T-F #4</b>	I usually decide with my head – choose what makes logical sense		I usually decide with my heart – choose based on my feelings or those of others	
<b>T-F #5</b>	I usually take a logical approach		I usually go by my personal convictions	
<b>T-F #6</b>	My major concern is for truth and justice		My major concerns are for relationships and harmony	
<b>T-F #7</b>	I am good at analyzing plans		I am good at understanding people	
<b>T-F #8</b>	I may seem cold and condescending to persons who re more feeling-oriented than I		I may seem fizzy-minded and emotional to persons who are more thinking-oriented than I	
<b>T-F #9</b>	I sometimes feel that I need more feeling-orientation to balance me		I sometimes feel that I need more thinking-orientation to balance me	

### Judgment-Perception

	Judgment	✓	Perception	✓
<b>J-P #1</b>	I enjoy being decisive		I enjoy being curious, discovering surprises	
<b>J-P #2</b>	I like clear limits and categories		I like freedom to explore without limits	
<b>J-P #3</b>	I feel comfortable establishing closure		I feel comfortable maintaining openness and taking in more information before deciding	
<b>J-P #4</b>	I prefer an organized lifestyle		I prefer a flexible lifestyle	
<b>J-P #5</b>	I like definite order and structure		I like going with the flow	
<b>J-P #6</b>	I like to have life under control		I prefer to experience life as it happens	
<b>J-P #7</b>	I work well with deadlines and plan in advance		I meet deadlines by a last minute push	
<b>J-P #8</b>	I may seem demanding, rigid and uptight to persons who are more perception-oriented than I		I may seem disorganized, messy and irresponsible to persons who are more judgment-oriented than I	
<b>J-P #9</b>	Sometimes I feel a need for more perception-orientation to balance me		Sometimes I feel a need for more judgment-orientation to balance me	

**A Thumbnail Sketch of the MBTI**

**Score Sheet**

**Extraversion/Introversion**

Letter \_\_\_\_\_

Score \_\_\_\_\_

**Sensing/Intuition**

Letter \_\_\_\_\_

Score \_\_\_\_\_

**Thinking/Feeling**

Letter \_\_\_\_\_

Score \_\_\_\_\_

**Judgment/Perception**

Letter \_\_\_\_\_

Score \_\_\_\_\_

1. Count the number of Xs in each column.
2. In the “Letter” blank, write the underlined letter of the column which you chose most frequently.
3. Your score for each box is the absolute difference between the number of choices you made in each column. To obtain absolute difference, subtract the smaller total from the larger total.

Write your four letters in the box below.

_____	_____	_____	_____
E or I	S or N	T or F	J or P

Your score for each letter indicates the strength of your orientation in the dimension on a scale of 0-9.