

## Reading Guide due Class Period 5: Self-Awareness (self as student)

## Learning styles &amp; multiple intelligences

Directions: In preparation for the class discussions, please complete the following before the 5<sup>th</sup> class.

1. Skim supplemental materials 8, 9, 10, 11, & 12. Using 1-2 sentences, describe what you will be learning for this reading guide.

Seems to be a Multiple Intelligence Survey. Also a Learning Style outline of several characteristics / strong points of study techniques.

**Supplement #8:** Complete the learning styles questionnaire on pages 17-21 in the supplemental materials. This will require you to answer questions on pages 17-20 and then add up your answers on page 21. After completing the questionnaire, read the learning styles and strategies information on pages 22-24.

1. Your preference for each learning style

- A. For the activist/reflector category, what is your preference and how strong is it? 5b  
moderate preference "Reflector"
- B. For the sensing/intuitive category, what is your preference and how strong is it? 7b  
moderate preference "Intuitive"
- C. For the visual/verbal category, what is your preference and how strong is it? 3a  
mild preference "visual" - well balanced
- D. For the sequential/global category, what is your preference and how strong is it the activist/reflector category? 1b  
mild preference "global" - well balanced

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2. Learning styles and strategies

- A. What is a learning style? The manner of taking in information <sup>ie seeing, hearing, doing, etc.</sup> and processing it.
- B. What is the relationship between learning styles and teaching style? When mismatches exist students will become disinterested and do poorly.
- C. Define and explain strategies that could be used by each of the following
- Active learners Tend to understand by demonstration -
  - Reflective learners Prefer to think it through.
  - Sensing learners Tend to like learning facts. Methodical problem-solving
  - Intuitive learners discover possibilities and relationships. Innovative.
  - Visual learners remember what they see. Visual <sup>re-</sup>presentation of study material.
  - Verbal learners remember what they hear. Outlines and summaries study material.
  - Sequential learners Gain understanding in linear steps. Follow logical steps.
  - Global learners Absorb randomly then "get it." Overview entire subject matter

Name- Gehler

*Sounds like you can use your preference as well as the ones you don't prefer*

3. \*Based on the information you read about learning styles and strategies, do you believe your learning style preferences from the questionnaire were correct? Use 2-3 sentences to explain how they were or were not correct.

Moderate Reflector accurately defines my learning style. Read+Study+REFLECT produces the best results for me.

Moderate Intuitive accurately defines my Understanding level. Im confident when I can correlate similarities.

Mild preference indicates ballance between Sequential and Global. As moderate Intuitive... I see both sides similarities.

**Supplement #9:** Complete the multiple intelligences survey on pages 25-27 in the supplemental materials. To complete this, you will need to put a "1" next to each statement that is true for you on pages 25-27. Then on page 28, add up the total from each section on pages 25-27. On page 28, graph the results from the chart at the top of the page (p. 28). By completing this graph, you will have a diagram that illustrates the strength of your preference for each multiple intelligence. The highest 3 scores represent your multiple intelligences.

1. For your three or four highest scores, write the score and name of the multiple-intelligence in the chart below.

Highest 3 or 4 scores	Name of multiple intelligence
10	NATURALIST
10	INTRAPERSONAL
9	LOGICAL
9	EXISTENTIAL

**Supplements #10, #11, & #12:** Read through pages 29-33 in the supplemental materials.

- Who developed the theory of multiple intelligences? Howard Gardner - Psychologist
- According to the theory of multiple intelligences, what is intelligence? A set of skills - potential located in different areas of the brain (eg verbal, visual, mathematical, etc) which make it possible for finding and creating solutions to problems
- Provide a definition for each of the following:
  - Bodily-Kinesthetic** body movement control, manual dexterity - agility - balance. Learn best through activity - hands on -
  - Interpersonal** Perception of other people's feelings - ability to relate to others; interpretation of behaviour and communications; understands the relationships between people and their situations -
  - Intrapersonal** Self awareness, personal cognisance/objectivity; the capability to understand oneself, one's relationship to others and the world, and one's own need for and reaction to change.
  - Linguistic** Words and language, retention, interpretation and explanation of ideas. Understands relationship between communication and meaning.
  - Logical-mathematical** Reasoning, analyse problems, detect patterns, understands relationship between cause and effect towards a tangible outcome or result.

Name: Goehler

- F. Musical awareness, appreciation and use of sound. Understands relationship between sound and feeling
- G. Spatial-visual interpretation and creation of visual images - Understands relationship between images and meanings, and between space and effects.
- H. Naturalist Pick up on subtle differences in meanings
- I. Existentialist affirming existence, having being in time and space: EMPIRICAL

4. \*Based on the information you read about multiple intelligences, do you believe your results from the multiple intelligences survey were correct? Use 2-3 sentences to explain how they were or were not correct.

Picking up on subtle differences in meanings (naturalist), is only possible due to Emotional Intelligence (Intrapersonal). I learn by experience. Yup 😊

5. Application of supplemental materials #8-#12

A. \*How can you use the knowledge of your learning style preferences and preferred multiple intelligences to assist you in performing well in this class? I understand my own strengths and liabilities well enough to function in this class - yet this multiple intelligence data helps me understand the other students

B. \*Think back over your k-12 school experience. In what ways did your teachers use learning style preferences and multiple intelligences in their instruction? How did this impact the effectiveness of your education?

Teachers taught rote lessons. Naturally I grew terribly bored with it and my existentialist drive - drove me out of school in the 7<sup>th</sup> grade to learn for myself

C. \*As a helping professional, you will often be helping others understand new concepts, gain self awareness, and learn new skills. How might the theory of learning style preferences and multiple intelligences inform the way in which you help others?

Supplement #11 points out intell description and corresponding learning styles / typical preferences and potential and related tasks. Knowing these will permit me to fully address the intelligence type correctly and remain ever mindful not to "mix match" the wrong learning style to preferences and potential.

\*Do not leave this blank. If you understand everything you read, you should still have questions you are wondering about as it relates to the reading. What 1-2 questions do you have for clarification or extension of the reading you completed in this reading guide, which covered 4 articles about learning styles & multiple intelligences? If you do not have any questions, feel free to make comments about your thoughts or opinions regarding the reading & how it applies to your life.

You'd think with all this SCIENCE of human nature, that we'd live in a utopia, instead of a draconian police state praising Jesus and Allah! Why do the few who achieve sapience tolerate mediocrity? Ah... Science and Religion / Knowledge and Constraint. Mediocrity isn't tolerated - they're given opiate to stay outta the way and conform. over →

Yup, the stench of a disillusioned idealist emits cynicism. Never the less, it may interest you to peruse Crime Solutions, gov ~~article~~ on Does Cognitive Behavioral Therapy Work in Criminal Justice? see article in www.NIJ.gov, in the National Institute of Justice Journal, Issue No. 277 09/2016, of the same title.

With more than half my 55 yrs exiled to penal colonies making Criminal Justice my career of sorts... I aim to "fix it". But I must consider the vested interest in maintaining status quo, and wonder what will happen to the legion of Criminal Justice employees invested in a draconian society.

Maybe this will better help you understand my point of view. I think that I have posted near 300 blogs over the years here at <http://betweenthebars.org/blogs/420/william-goehler>, which you might have your civilian students "study" - the mind of a prisoner/student.

I think it does, but it would help me if you connected it to your thoughts directly to the reading material.

**\*\*\*Part 2 supplemental materials 1<sup>st</sup> third of semester\*\*\*****Supplement #8****Index of Learning Styles (ILS) Learning Style Questionnaire**Retrieved from [https://www.bradford.ac.uk/academic-](https://www.bradford.ac.uk/academic-skills/media/learnerdevelopmentunit/documents/academic-skills-resources/effective-learning-strategies/media-99185-en..pdf)[skills/media/learnerdevelopmentunit/documents/academic-skills-resources/effective-learning-strategies/media-99185-en..pdf](https://www.bradford.ac.uk/academic-skills-resources/effective-learning-strategies/media-99185-en..pdf)

This questionnaire is designed to find out what your learning preferences are. It was originally designed by Felder and Silverman at North Carolina State University, USA.

**Directions:** To complete the questionnaire please circle "a" or "b" to indicate your answer to every question. You may only choose one answer for each question and you must answer every question. If both "a" and "b" seem to apply to you, please choose the one that applies more frequently.

1. I understand something better after I
  - (a) try it out.
  - ✗ (b) think it through.
  
2. I would rather be considered
  - (a) realistic.
  - ✗ (b) innovative.
  
3. When I think about what I did yesterday, I am most likely to get
  - ✗ (a) a picture.
  - (b) words.
  
4. I tend to
  - (a) understand details of a subject but may be fuzzy about its overall structure.
  - ✗ (b) understand the overall structure but may be fuzzy about details.
  
5. When I am learning something new, it helps me to
  - (a) talk about it.
  - ✗ (b) think about it.
  
6. If I were a teacher, I would rather teach a course
  - (a) that deals with facts and real life situations.
  - ✗ (b) that deals with ideas and theories.
  
7. I prefer to get new information in
  - (a) pictures, diagrams, graphs, or maps.
  - ✗ (b) written directions or verbal information.
  
8. Once I understand
  - (a) all the parts, I understand the whole thing.
  - λ (b) the whole thing, I see how the parts fit.
  
9. In a study group working on difficult material, I am more likely to
  - ✗ (a) jump in and contribute ideas.
  - (b) sit back and listen.
  
10. I find it easier
  - (a) to learn facts.
  - ✗ (b) to learn concepts.

11. In a book with lots of pictures and charts, I am likely to  
(a) look over the pictures and charts carefully.  
X (b) focus on the written text.
12. When I solve maths problems  
X (a) I usually work my way to the solutions one step at a time.  
(b) I often just see the solutions but then have to struggle to figure out the steps to get to them.
13. In classes I have taken  
(a) I have usually got to know many of the students.  
X (b) I have rarely got to know many of the students.
14. In reading non-fiction, I prefer  
(a) something that teaches me new facts or tells me how to do something.  
X (b) something that gives me new ideas to think about.
15. I like teachers  
(a) who put a lot of diagrams on the board.  
X (b) who spend a lot of time explaining.
16. When I'm analyzing a story or a novel  
X (a) I think of the incidents and try to put them together to figure out the themes.  
(b) I just know what the themes are when I finish reading and then I have to go back and find the incidents that demonstrate them.
17. When I start a homework problem, I am more likely to  
(a) start working on the solution immediately.  
X (b) try to fully understand the problem first.
18. I prefer the idea of  
(a) certainty.  
X (b) theory.
19. I remember best  
X (a) what I see.  
(b) what I hear.
20. It is more important to me that an instructor  
(a) lay out the material in clear sequential steps.  
X (b) give me an overall picture and relate the material to other subjects.
21. I prefer to study  
(a) in a group.  
X (b) alone.
22. I am more likely to be considered  
(a) careful about the details of my work.  
X (b) creative about how to do my work.

23. When I get directions to a new place, I prefer  
X (a) a map.  
(b) written instructions.
24. I learn  
X (a) at a fairly regular pace. If I study hard, I'll "get it."  
(b) in fits and starts. I'll be totally confused and then suddenly it all "clicks."
25. I would rather first  
(a) try things out.  
X (b) think about how I'm going to do it.
26. When I am reading for enjoyment, I like writers to  
(a) clearly say what they mean.  
X (b) say things in creative, interesting ways.
27. When I see a diagram or sketch in class, I am most likely to remember  
X (a) the picture.  
(b) what the instructor said about it.
28. When considering a body of information, I am more likely to  
(a) focus on details and miss the big picture.  
X (b) try to understand the big picture before getting into the details.
29. I more easily remember  
X (a) something I have done.  
(b) something I have thought a lot about.
30. When I have to perform a task, I prefer to  
X (a) master one way of doing it.  
(b) come up with new ways of doing it.
31. When someone is showing me data, I prefer  
(a) charts or graphs.  
X (b) text summarizing the results.
32. When writing a paper, I am more likely to  
X (a) work on (think about or write) the beginning of the paper and progress forward.  
(b) work on (think about or write) different parts of the paper and then order them.
33. When I have to work on a group project, I first want to  
(a) have a "group brainstorming" where everyone contributes ideas.  
X (b) brainstorm individually and then come together as a group to compare ideas.
34. I consider it higher praise to call someone  
(a) sensible.  
X (b) imaginative.

35. When I meet people at a party, I am more likely to remember  
X (a) what they looked like.  
(b) what they said about themselves.
36. When I am learning a new subject, I prefer to  
X (a) stay focused on that subject, learning as much about it as I can.  
(b) try to make connections between that subject and related subjects.
37. I am more likely to be considered  
X (a) outgoing.  
(b) reserved.
38. I prefer courses that emphasise  
(a) concrete material (facts, data).  
X (b) abstract material (concepts, theories).
39. For entertainment, I would rather  
X (a) watch television.  
(b) read a book.
40. Some teachers start their lectures with an outline of what they will cover. Such outlines are  
(a) somewhat helpful to me.  
X (b) very helpful to me.
41. The idea of doing homework in groups, with one grade for the entire group,  
(a) appeals to me.  
X (b) does not appeal to me.
42. When I am doing long math calculations,  
X (a) I tend to repeat all my steps and check my work carefully.  
(b) I find checking my work tiresome and have to force myself to do it.
43. I tend to picture places I have been  
X (a) easily and fairly accurately.  
(b) with difficulty and without much detail.
44. When solving problems in a group, I would be more likely to  
(a) think of the steps in the solution process.  
X (b) think of possible consequences or applications of the solution in a wide range of areas.

Now turn to the scoring sheet, which is on the next page, so you can see where your preferences are.



**Supplement #8 Continued**  
**Learning Styles Questionnaire**  
**Scoring Sheet**

1. Place a "1" in the appropriate spaces in the table below (e.g. if you answered "a" to Question 3, put a "1" in Column "a" by Question 3).
2. Add up the columns and write the totals in the indicated spaces.
3. For each of the four scales, subtract the smaller total from the larger one. Write the difference (1 to 11) and the letter (a or b) with the larger total.

Activist/Reflector			Sensing/Intuitive			Visual/Verbal			Sequential/Global		
Q	a	b	Q	a	b	Q	a	b	Q	a	b
1		x	2		x	3	x		4		x
5		x	6		x	7		x	8		x
9	x		10		x	11		x	12	x	
13		x	14		x	15		x	16	x	
17		x	18		x	19	x		20		x
21		x	22		x	23	x		24	x	
25		x	26		x	27	x		28		x
29	x		30	x		31		x	32	x	
33		x	34		x	35	x		36	x	
37	x		38		x	39	x		40		x
41		x	42	x		43	x		44		x
<i>Total (add up each column)</i>											
Activist/Reflector			Sensing/Intuitive			Visual/Verbal			Sequential/Global		
Q	a	b	Q	a	b	Q	a	b	Q	a	b
	3	8		2	9		7	4		5	6
<i>Larger - Smaller + Letter of Larger (see below*)</i>											
	5	b		7	b		3	a		1	b

*\*Example: If your total was 3 for a and 8 for b: 8 - 3 = 5, b is letter of larger so you would enter 5b.*

**Explanation of scores**

- If your score on a scale is 1-3, you have a mild preference for one or the other dimension but you are essentially well balanced.
- If your score on a scale is 5-7, you have a moderate preference for one dimension of the scale and will learn more easily in a teaching environment which favors that dimension.
- If your score on a scale is 9-11, you have a strong preference for one dimension of the scale. You may have real difficulty learning in an environment which does not support that preference.

*This page is left purposefully blank. It can be used to take notes.*

## Supplement #8 Continued **Learning Styles and Strategies**

### **Learning Styles**

Everybody takes in information and processes this in different ways. You could do this by seeing and hearing, reflecting and acting, reasoning logically and intuitively, analyzing and visualizing, steadily and in fits and starts and so on. Teaching methods also vary with some tutors lecturing, others demonstrating or leading students to self-discovery; some focus on principles and others on applications; some emphasize memory and others understanding.

When mismatches exist between the learning styles of a student and the teaching style of the tutor, you may become bored and inattentive in class, do poorly on tests, and get discouraged about the courses, the curriculum, and yourself.

The questionnaire you have just completed will give you an idea of your learning preferences. Below you will find more information on what these mean, and how you can learn most effectively.

### **Active and Reflective Learners**

Active learners tend to retain and understand information best by doing something active with it e.g. discussing or applying it or explaining it to others. Reflective learners prefer to think about things quietly first.

"Let's try it out and see how it works" is an active learner's phrase; "Let's think it through first" is the reflective learner's response.

Active learners tend to like group work more than reflective learners, who prefer working alone.

Sitting through lectures without getting to do anything physical but take notes is hard for both learning types, but particularly hard for active learners.

*Everybody is active sometimes and reflective sometimes.* Your preference for one category or the other may be strong, moderate, or mild. A balance of the two is desirable. If you always act before reflecting you can jump into things prematurely and get into trouble, while if you spend too much time reflecting you may never get anything done.

*How can active learners help themselves?* If you are an active learner in a class that allows little or no class time for discussion or problem-solving activities, you should try to compensate for these when you study. Study in a group in which the members take turns explaining different topics to each other. Work with others to guess what you will be asked on the next test and figure out how you will answer. You will always retain information better if you find ways to do something with it.

*How can reflective learners help themselves?* If you are a reflective learner in a class that allows little or not class time for thinking about new information, you should try to compensate for this lack when you study. Don't simply read or memorize the material; stop periodically to review what you have read and to think of possible questions or applications. You might find it helpful to write short summaries of readings or class notes in your own words. Doing so may take extra time but will enable you to retain the material more effectively.

### **Sensing and Intuitive Learners**

Sensing learners tend to like learning facts; intuitive learners often prefer discovering possibilities and relationships.

Sensors often like solving problems by well-established methods and dislike complications and surprises; intuitors like innovation and dislike repetition. Sensors are more likely than intuitors to resent being tested on material that has not been explicitly covered in class.

Sensors tend to be patient with details and good at memorizing facts and doing hands-on (laboratory) work; intuitors may be better at grasping new concepts and are often more comfortable than sensors with abstractions and mathematical formulations.

Sensors tend to be more practical and careful than intuitors; intuitors tend to work faster and to be more innovative than sensors.

Sensors don't like courses that have no apparent connection to the real world; intuitors don't like "plug-and-chug" courses that involve a lot of memorization and routine calculations.

*Everybody is sensing sometimes and intuitive sometimes.* To be effective as a learner and problem solver, you need to be able to function both ways. If you overemphasize intuition, you may miss important details or make careless mistakes in calculations; hands-on work; if you overemphasize sensing, you may rely too much on memorization and familiar methods and not concentrate enough on understanding and innovative thinking.

*How can sensing learners help themselves?* Sensors remember and understand information best if they can see how it connects to the real world. If you are in a class where most of the material is abstract and theoretical, you may have difficulty. Ask your tutor for specific examples of concepts and procedures, and find out how the concepts apply in practice. If the teacher does not provide enough specifics, try to find some in your course text or other references or by brainstorming with friends or classmates.

*How can intuitive learners help themselves?* Many classes are aimed at intuitors. However, if you are an intuiitor and you happen to be in a class that deals primarily with memorization and rote substitution in formulas, you may have trouble with boredom. Ask your tutor for interpretations or theories that link the facts, or try to find the connections yourself. You may also be prone to careless mistakes on tests because you are impatient with details and don't like repetition (as in checking your completed solutions). Take time to read the entire question before you start answering and be sure to check your results.

## **Visual and Verbal Learners**

Visual learners remember best what they see e.g. pictures, diagrams, flow charts, time lines, films, demonstrations etc. Verbal learners get more out of words such as written and spoken explanations. Everyone learns more when information is presented both visually and verbally.

In some classes, very little visual information is presented: students mainly listen to lectures and read material written on chalkboards and in textbooks and handouts. Unfortunately, most people are visual learners, which means that most students do not get nearly as much as they would if more visual presentation were used in class. Good learners are capable of processing information presented either visually or verbally.

*How can visual learners help themselves?* If you are a visual learner, try to find diagrams, sketches, schematics, photographs, flow charts, or any other visual representation of course material that is predominantly verbal. Ask your tutor, consult reference books, and see if any videotapes or CD-ROM displays of the course material are available. Prepare a concept map by listing key points, enclosing them in boxes or circles, and drawing lines with arrows between concepts to show connections. Colour-code your notes with a highlighter so that everything relating to one topic is the same colour.

*How can verbal learners help themselves?* Write summaries or outlines of course material in your own words. Working in groups can be particularly effective: you gain understanding of material by hearing classmates' explanations and you learn even more when you do the explaining.

## **Sequential and Global Learners**

Sequential learners tend to gain understanding in linear steps, with each step following logically from the previous one. Global learners tend to learn in large jumps, absorbing material almost randomly without seeing connections, and then suddenly "getting it."

Sequential learners tend to follow logical stepwise paths in finding solutions; global learners may be able to solve complex problems quickly or put things together in novel ways once they have grasped the big picture, but they may have difficulty explaining how they did it.

Many people who read this description may conclude incorrectly that they are global, since everyone has experienced bewilderment followed by a sudden flash of understanding. What makes you global or not is what happens before the light bulb goes on. Sequential learners may not fully understand the material but they can nevertheless do something with it (like solve the homework problems or pass the test) since the pieces they have absorbed are logically connected. Strongly global learners who lack good sequential thinking abilities, on the other hand, may have serious difficulties until they have the big picture. Even after they have it, they may be fuzzy about the details of the subject, while sequential learners may know a lot about specific aspects of a subject but may have trouble relating them to different aspects of the same subject or to different subjects.

*How can sequential learners help themselves?* Most courses are taught in a sequential manner. However, if you are a sequential learner and you have a tutor who jumps around from topic to topic or skips steps, you may have difficulty following and remembering. Ask the tutor to fill in the skipped steps, or fill them in yourself by consulting references. When you are studying, take the time to outline the lecture material for yourself in logical order. In the long run doing so will save you time. You might also try to strengthen your global thinking skills by relating each new topic you study to things you already know. The more you can do so, the deeper your understanding of the topic is likely to be.

*How can global learners help themselves?* If you are a global learner, it can be helpful for you to realise that you need the big picture of a subject before you can master details. If your tutor plunges directly into new topics without bothering to explain how they relate to what you already know, it can cause problems for you. Fortunately, there are steps you can take that may help you get the big picture more rapidly. Before you begin to study the first section of a chapter in a text, skim through the entire chapter to get an overview. Doing so may be time-consuming initially but it may save you from going over and over individual parts later. Instead of spending a short time on every subject every night, you might find it more productive to immerse yourself in individual subjects for large blocks. Try to relate the subject to things you already know, either by asking the tutor to help you see connections or by consulting references. Above all, don't lose faith in yourself; you will eventually understand the new material, and once you do your understanding of how it connects to other topics and disciplines may enable you to apply it in ways that most sequential thinkers would never dream of.

This handout is adapted from Felder & Solomon, notes available at <http://www2.ncsu.edu/unity/lockers/users/f/felder/public/ILSpage.html>