

# Week 2 Quick Quiz

## Study Guide and Answer Key

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### Why do these definitions matter?

1. **These words will be used all term** to help you learn **how to write a pre-university paper** (so you can first graduate with a 72+ grade in English and then you can more likely get into a college or university for a *credentialed profession or other high paying job*, if you want) and/or **how to write a C- or higher high school paper** (so you can graduate and/or more likely get into *a trade or other high paying job*, if you want).
2. **These words provide a framework**, which is a kind of “mental building structure inside your brain”, that help you understand how to read and how to write (thinking made visible). These words are the foundation of the framework. You cannot build the mental structure without them in place, and they cannot be faulty.
3. **These words have common meanings that can be confusing at times when using the words at school.** (Common meanings are how a word is used outside of academic settings like a high school, college, or university). You must focus on the school-meaning (which we can call “academic meaning” or “scholars’ meaning” throughout the course). You are learning scholarship (how to use rigorous study to understand and explains things), and this makes you a novice scholar. (We also call this a **novice theorist**.)

### Why do these models matter?

1. **Models make it easier to understand and apply something.** In this case you must understand how to read and write at the level of a scholar or theorist. The models will help you do this. Will first learn the models. Then you will apply them.
2. **These models were developed specifically for you.** Mr. Kertes and Mr. Budning developed the models by looking carefully at student papers. We looked for common errors and misunderstandings. We looked for how our teaching could be clearer, simpler, and more focused on teaching reading and writing for high school papers. Then we developed models and frameworks to help make the process of writing a high school or pre-university paper easier for students. (Mr. Kertes also got lots of help from his mom Mrs. Kertes-Smith and from Mr. Waldal as he continued to apply and refine the models.)

### How will you learn these definitions and models?

1. **You must MEMORIZE them.** Take notes. Study the notes. Quiz yourself. Practice every day. Continue until you have memorized the models.
2. Focus on the point. The **how** and the **why** and the **understand** and the **explain** of them.
3. Ask for help. If you do not yet know how to memorize definitions, ask for help to do this.

## How will you be assessed for learning these definitions and models?

1. **You will define the definitions from memory and using exact (or near exact) wording.** You will do this on multiple quizzes, tests, and exams over the five months of this course. The final exam includes these definitions. To achieve a Proficient or Extending Grade for the course, you must be able to correctly define the words. (Yes, they are *that* important.)
2. **You will draw and correctly label the models from memory and write descriptions of the models.** You will do this on multiple quizzes, tests, and exams over the five months of this course. The final exam includes these models. To achieve a Proficient or Extending Grade for the course, you must be able to correctly define the words. (Yes, they are *that* important.)
3. **You will apply the concepts and models to write essays and to participate in class discussions and conferences.** You will do this several times, including for Essay 1 and Essay 2 and on the exams and tests.
4. **You will write learning stories that describe and explain how you applied the models and that explain why the models are useful and how using the models improved your reading, writing, speaking, listening, and thinking skills.** You will do this in essays, learning stories, and on multiple quizzes and exams.

## REVIEW: DEFINITIONS & MODELS

### 1. Theory

#### a. DEFINITION:

- i. **Theory is a systematic explanation of how or why things are, based on rigorous thinking and analysis.**

#### b. VALUE TO YOU:

- i. **Theory helps you understand and explain things.**
- ii. Knowing what a teacher means by “theory” helps you focus on ideas, models, frameworks, and models when writing and reading.
- iii. **Theories provide powerful and useful tools to understand and explain reality**, especially when supported by good evidence (facts and logic are especially helpful).
- iv. The idea of “theory” can be confusing – it is sometimes used to be confusing (especially in college or university), and so it helps to know what theory is. **This can be helpful to sort out what you believe and know and help you understand and explain things in academic settings.** (Some people use “theory” so sound smart and to make others

feel small or stupid. Mastery over theory can help you avoid feeling this way when in a academic setting for the first time.)

c. HOW TO USE:

- i. **Pay attention to ideas.** Pay attention to connections. And pay attention to value of things – why things matter (to you, especially).
- ii. **Use systems thinking** – see and understand the “whole” by breaking things down into parts, seeing how the parts work together, and then explaining the processes and systems of the things you are studying.
- iii. **Ask how and why when reading something or learning about something.** Such as, ask “*how did the author tell their story?*” or “*why did the author do this or that when telling their story?*” The answers to these questions, when you use rigorous and systematic thinking, will be your own theories of things.

## 2. Thesis

a. DEFINITION:

- i. **The thesis is the point of the paper. There is always one, and only one, thesis for each paper.**

b. VALUE TO YOU:

- i. When you write a paper at the **high school level** (in order to pass courses at 50+ and to be able to graduate with a high school diploma at the end of Grade 12) or at the **pre-university level** (in order to pass English courses with 72+ so that it’s easier to get into a college or university of your choice after you graduate from high school), you must focus on **ONE** thesis.
- ii. **A well-focused paper is usually the difference between a good paper and a bad paper.** When a teach says “the paper is focused” they usually mean that the entire paper makes one point (and just one point) and that everything in the paper focuses on that point. The point of the paper is the thesis, so a focused paper has a thesis, and the entire paper is about (in support of) that thesis.
- iii. A good thesis (meaning a paper that is easier to write and that is more likely to be at the high school and/or pre-university level) will be based in theory. It will be theoretical. That means that it will explain how or why and the evidence in support of it will be systematic and rigorous.

c. HOW TO USE:

- i. Use the Focus Funnel to work through the process of developing a focused paper, which includes writing a strong thesis statement by coming up with

a focusing question at the start of the process. The write your paper to describe, explain, connect, and reflect on the thesis.

### 3. System

#### a. DEFINITION:

- i. **A system is a bunch of parts that work together and that do more together than they can on their own.**

#### b. VALUE TO YOU:

- i. **Language is a system.** The system is made up of subsystems, such as the subsystem of reading, the subsystem of writing, and the subsystem of thinking. Reading, writing and thinking work together and produce more together than they would on its own. Learning about the language system and its subsystems helps you be smarter and more powerful. The writing subsystem is made up of subsystems as well, such as the theory subsystem, thesis subsystem, and systems-thinking subsystem. When you learn how to these subsystems work and how to apply them, you become a better writer and more effective thinker. You can understand and explain reality.
- ii. By **thinking of writing as a system that makes thinking visible**, you can focus on one part of the system at a time. By writing through systems thinking, you can take your topic and break it up into parts. Each part gets its on paragraph, subsection, section, or chapter. You can turn a complex “whole” into a “bunch of parts” which makes it possible to discuss it using the linear nature of writing.

#### c. HOW TO USE:

- i. **Start with the whole.** Find a topic. View the topic as a whole thing. Ask why it matters, how does it connect, what is it, and how or why does it work (or exist) in the way that it is (its way in reality).
- ii. **Then, after looking at the whole of something, see how it can be made into a model of itself.** Apply systems thinking to break the “whole” into a bunch of parts. Describe and explain how and why the parts work together as they do. Explain the processes, inputs, outputs, and functions of the system.

### 4. Lev Vygotsky

#### a. DEFINITION:

- i. **According to ChatGPT, “Lev Vygotsky was a Russian psychologist known for his sociocultural theory, emphasizing social interaction's role in cognitive development”.**

b. VALUE TO YOU:

- i. This course was developed using Lev Vygotsky's theories on how people learn and **how learning shapes human development**. According to Vygotsky, learning things like key terms and models provides you with "cognitive tools" that make you smarter and more powerful. This course is designed to provide you with cognitive tools to help you be smarter and more powerful.
  - ii. Throughout the course, you will be asked to **write learning stories and to assess and evaluate your own learning**. When you do this, you will be applying models and ideas that were developed by Vygotsky. Knowing where these ideas came from can help you explain and describe how you applied the theories, used the models, and became smarter and more powerful.
5. **The Levels of Analysis are a cognitive tool (a taxonomy tool) for helping you focus by asking the right questions.**
- a. Describe – Who? What? Where? When? What quantity?
  - b. Explain – How? Why?
  - c. Connect: How does it connect?
  - d. Reflect – Why does it matter?
  - e. Metacognition – How do I know?
6. **The Five Fs are a cognitive tool (a model tool) for including all of the elements of writing in your papers and for seeing how each element connects and works with the other elements.**
- a. Focus – Focusing Question + Theory + Thesis Statement
  - b. Form – Features of Text + Outline + Sections + Subsections + Paragraphs
  - c. Filler – Facts + Data + Theories + Stories + Ideas + Quotes + Paraphrases + Etc.
  - d. Flow – Roadmaps + Signposts + Transitions
  - e. Feeling – Your Ideas + Your Values + Your Beliefs + Your Voice
7. **Systems Thinking (Elements of a System) is a cognitive tool (a process tool) for understanding how and why things work as they do, by looking at the whole and then breaking the whole down into parts – to see how the parts work together and do more together than they can on their own.**
- a. Boundary – You set the boundary of the system
  - b. Components (parts) – A system is made up of parts (components)
  - c. Inputs – Inputs cross the boundary and go into the system
  - d. Outputs – Outputs cross the boundary and go out of the system
  - e. Function – What the system does (what the parts do together to produce more)

8. **The Zone of Proximal Development is a cognitive tool (a model tool) that describes and explains how people learn, and how learning leads to further development (increased capacity, making you smarter and more powerful), that was developed by Lev Vygotsky and that is used throughout this course to explain how to learn and why learning about advanced reading, writing, and thinking makes you smarter and more powerful.**
- a. NY – Not Yet (you cannot do or understand something, even with help)
  - b. LA – Lots of Assistance (you can do or understand something with lots of help)
  - c. SA – Some Assistance (you can do or understand something with a little help)
  - d. ZPD – Zone of Proximal Development (the “cognitive cliff” or the gap between able to do something a little help and being able to it on your work – it is this gap where the most development, through the most learning, occurs; the ZPD is powerful and it helps you lots, but it can feel uncomfortable and be challenging at times)
  - e. IN – Independent (you have learned how to do or understand something, you can do it on your own)
  - f. MA – Mastery (you can do it, you understand it, and you know it so well that you can teach it to others without help teaching it or explaining it – you have mastered it)

## Quiz Questions and Answer Key

### *To Demonstrate Complete or Sophisticated Understanding*

1. Define theory.

Theory is a systematic explanation of how or why things are, based on rigorous thinking and analysis.

2. Define thesis.

The thesis is the point of the paper. There is always one, and only one, thesis for each paper.

3. Define system.

A system is a bunch of parts that work together and that do more together than they can on their own.

4. List the four cognitive tools covered so far in class. There will be one taxonomy tool, one process tool, and two model tools. The order listed does not matter.

1. Levels of Analysis
2. Five Fs
3. Systems Thinking (Elements of a System)
4. Zone of Proximal Development

### ***To Demonstrate Partial Understanding***

1. Define theory.

Theory helps you understand and explain things using facts, logic, and other kinds of good evidence.

2. Define thesis.

The thesis is the point of the paper. There is always one, and only one, thesis for each paper.

3. Define system.

A system is a bunch of parts that work together and that do more together than they can on their own.

4. List the four cognitive tools covered so far in class. There will be one taxonomy tool, one process tool, and two model tools. The order listed does not matter.

1. Levels of Analysis
2. Five Fs
3. Systems Thinking (Elements of a System)
4. Zone of Proximal Development



## *To Demonstrate Initial Understanding*

1. Define theory.

Academic theories explain reality by answering how-questions and why-questions.

2. Define thesis.

The thesis is the point of the paper. There is always one, and only one, thesis for each paper.

3. Define system.

A system is a bunch of parts that work together.

### **Glossary**

1. **academic** – *Academic* means having to do with a school, college, or university. Academics are the people who work at schools, colleges, and universities. At a school, an academic is a “student” or a “teacher”. At a college or university, an academic is a “student,” “instructor,” or “professor”. Academic things are things that happen in these kinds of places. Colleges and universities use words in specific ways, since this helps them do their job of studying things, writing books and articles about what they study, and teaching students and other academics what they learn through research.
2. **analysis** – According to *Oxford Languages*, *analysis* means a “detailed examination of the elements or structure of something” (2024).
3. analyze (**to analyze**) – According to *Oxford Languages*, *to analyze* means to “discover or reveal (something) through detailed examination” (2024).
4. boundary (**system boundary**) – A *system boundary* is whatever limit you, the person studying or defining the system, place as outside of the system of study. Since everything is connected to everything, you can examine narrow connections or wide connections, depending on where you place (or define) the boundary.
5. **cognition** – *Cognition* means “thinking” and according to *Oxford Languages* it means “the mental action or process of acquiring knowledge and understanding through thought, experience, and the sense” (2024).
6. **cognitive tool** – While, according to ChatGPT 4o mini, “Vygotsky, a key figure in developmental psychology, didn't use the term *cognitive tools*” himself (2024) later scholars, such as Jonassen, extended Vygotsky's sociocultural theory of learning by using the term *cognitive tools* to mean



“computationally based tools [that can be internal to the learner] that complement and extend that mind” and that facilitate (help) people learn since “learning requires thinking by the learner” by engaging “learners in meaningful cognitive processes” and the use of “knowledge construction tools” (1992). This course focuses on how to use cognitive tools, such as the key models and ideas like *theory* or *thesis*, to “make thinking visible” and help students become smarter and more powerful through learning and development.

7. component (**system component**) – A *system component* is one part of a system. The system is made up of a bunch of parts, which can also be called components. Components of a system work together. Each component can its own system, in which case it is called a *subsystem*.
8. development (**human development**) – Human development is the process of change across time. In psychology (the study of human behaviour and cognition) this refers specifically to the development of thinking, language, and learning capacities. According to ChatGPT 4o mini, human development is “a socially mediated and culturally influenced process that involves the internalization of external tools and interactions, with a focus on the potential for growth within the Zone of Proximal Development” (2024). In short, development is growth in capacity, or simply change, across the lifespan.
9. **expository essay** – According to ChatGPT 4o mini, an *expository essay* is “a type of writing that aims to inform, explain, or describe a topic in a clear, concise, and objective manner. Unlike persuasive or argumentative essays, which seek to convince the reader of a particular viewpoint, expository essays focus on providing factual information and detailed explanations without presenting a personal opinion or argument” (2024).
10. **features of text** – According to ChatGPT 4o mini, *features of text* are “specific elements within a text that help organize, present, and emphasize information to make it more accessible and understandable to readers” (2024). They make reading faster and easier, allowing you to skip and skim, find the main point, easily summarize, and focus only on what you need to read. Examples of text features are:
  - a. bold and italics
  - b. captions
  - c. conclusion
  - d. glossaries
  - e. images, charts, graphs
  - f. in-text citation
  - g. indexes
  - h. introduction
  - i. lists
  - j. main body

- k. paragraphs
  - l. quotes (and block quotes)
  - m. section headings
  - n. sections
  - o. subtitle
  - p. table of contents
  - q. title
  - r. topic sentences
11. **Five Fs** – The *Five Fs* are a model of the written essay and provide a tool to help you focus on the key elements of an essay when you write one. The Fs are (in order):
- a. Focus
  - b. Form
  - c. Filler
  - d. Flow
  - e. Feeling
12. Framework (**cognitive framework**) – According to ChatGPT 4o mini, a *cognitive framework* is “a structured mental model or system that helps individuals organize, process, and interpret information. It represents the way people think about and understand complex concepts or systems” (2024).
13. function (**system function**) – A *system function* is what the system does.
14. **high school level paper** – A *high school level paper* describes and explains by focusing on a single thesis and topic, being organized, providing evidence to support the thesis, and following the conventions of a high school essay or other paper. It explains how or why. It is factual, or well-reasoned, and it uses correct attribution, effective organization, and the writing process to explain, connect, and reflect. The minimal level of quality for a high school level paper is represented by a score of 50. If you can (and do) write papers at 50 or higher, you are on track to graduation from high school by passing English and using reading and writing to research, understand, and explain high school level content, ideas, and theories.
15. input (**system input**) – A *system input* is anything that passes the *system boundary* and goes into the system.
16. **key concepts test** – The *key concepts test* focuses on theories and strategies for reading and writing at the high school and/or pre-university level. You have at least three attempts to complete this test, and every correct answer remains on your test – so you don’t have to keep redoing correct answers.
17. **learning story** – A *learning story*, a called *pedagogical narration*, is a reflective essay that focuses on describing, explaining, connecting, and reflecting on the value of what, how, and why you learned

specific skills and concepts through a course. It is a meta-cognitive exercise. By writing a learning story, you focus on your own learning. You not only assess the value of your learning, but also identify (draw attention to) the cognitive tools acquired through the process of learning in relation to a specific assignment, unit, or task. This helps you pay attention to your learning, remember key things, have control over your learning, and see the value of learning specific things that you can later use to carry out other goals.

18. **Levels of Analysis** – The Levels of Analysis provide key questions to help you focus your inquiry (study) when researching or writing. The Levels are a cognitive tool (a taxonomy tool). They are like **Bloom’s Taxonomy** (levels of thinking – which we learn about later in the term) but differ in that the Levels of Analysis were developed specifically with high school level and pre-university level writing in mind. The main difference is that the Levels of Analysis focus on questions to ask when developing your focus, understanding the difference between mere description and explanation (which is also the difference between a **topic** and a **thesis**), and using connection and reflection as shortcuts (to make writing easier). The Levels of Analysis are (in reverse order):
  - a. Metacognition – *How do I know?*
  - b. Reflection – *Why does it matter?*
  - c. Connection – *How does it connect?*
  - d. Explanation – *How? Why?*
  - e. Description – *Who? What? When? Where? What quantity?*
19. **mastery** – *Mastery* is knowing how to do something, or understanding something, so well that you can do (or explain) it without help from others and you know it well enough that you can teach it to others (by yourself).
20. **meta-cognition** – *Meta-cognition* is thinking about your own thinking. *Meta* means “beyond” or “transcending”. *Cognition* means thinking.
21. **model** – According to ChatGPT 4o mini, a *model* is “a simplified representation or abstraction of a more complex system, concept, or phenomenon” there are different kinds of models. For example *conceptual models*, according to the same source, “illustrate and clarify complex ideas or systems,” *scientific models* “represent and explain complex systems or phenomena in the natural world” and *theoretical models* “provide a framework or set of principles to understand and explain theoretical concepts”. The same source also explains the following “key features of models”: simplification, representative, prediction, explanation, and evaluation. Models are a kind of cognitive tool as a category. Each model is also a specific cognitive tool as well.
22. **model tool** (a kind of cognitive tool) – One category of cognitive tool are *model tools*. See the definition, above, of *model*, for more information on *model tools*.

23. **novice** – A *novice* is inexperienced at doing (or understanding) something and relies on tools, instruction, and mentors (peer or teacher) to help them develop the skill (or understanding of the concept). *Novice* essentially means “new”,
24. **output** (system output) – A *system output* is anything that passes the *system boundary* and goes out of the system.
25. **pre-university level paper** – A *pre-university level paper* develops a thesis with credible supporting evidence that makes sense. In addition to all the criteria for a high school level paper, at the pre-university level a paper must be theoretical and must apply rigorous systems thinking. The presentation and development of the thesis must be compelling. The minimal level of quality for a pre-university level paper is represented by a score of 72. If you can (and do) write papers at 72 or higher, you are on track to graduation from high school and you are demonstrating either independent application or mastery of theoretical analysis through reading, writing, listening, speaking, a researching. At this level, you demonstrate application of the Levels of Analysis. Your paper includes relevant sources. A pre-university paper connects the thesis to other scholarship, correctly cites relevant sources, and is part of a scholarly conversation on ideas, topics, themes, and issues.
26. **process tool** (a kind of cognitive tool) – A process tool is a kind of cognitive tool that involves working through a sequence (often a series of steps) that result in an outcome. Like a system, a process performs a function is a model for understanding how to achieve intended results.
27. **scholar** – According to Wikipedia, a *scholar* “A scholar is a person who is a researcher or has expertise in an academic discipline. A scholar can also be an academic, who works as a professor, teacher, or researcher at a university. An academic usually holds an advanced degree or a terminal degree, such as a master's degree or a doctorate” (2024).
28. **scholarship** – According to the University of Chicago Biological Sciences Division website, *scholarship* is the “**creation of knowledge**” and “this knowledge can in be in any domain (e.g., education, administration, outreach, clinical, technical, leadership), not just research or "discovery" scholarship. It can be at the laboratory bench, at the bedside, on the computer, in the library, in nature, in the community, etc. It can be empirical or theoretical, hypothesis-driven or experiential” (2024).
29. **section** (section of a paper, section of a book) – A *section* is a text feature (part of the Five Fs – **Form**) that focus on one key point in support of the thesis (this can be “sub-thesis”).
30. **Six Stages of Writing** – The Six Stages of Writing is the process for writing a high school level paper and/or and pre-university level paper. The Six Stages are (in order):
  - a. Wondering Stage
  - b. Preparing Stage
  - c. Planning Stage

- d. Drafting Stage
  - e. Revising Stage
  - f. Editing Stage (also known as Publishing Stage)
31. **subsection** (subsection of a paper, subsection of a book) – A *subsection* is a text feature (part of the Five Fs – **Form**) that focus on one key point in support of a main idea (section) or a sub-thesis (which will be, again, in a section). A section can be made up of several sub-sections.
32. **system** - A *system* is a bunch of parts that work together and that do more together than they can on their own. The elements of a system are:
- a. Boundary
  - b. Components (parts)
  - c. Inputs
  - d. Outputs
  - e. Function
33. **systems thinking** – *Systems* thinking is using systems and models to understand and explain things, including by looking at the whole, breaking it into parts, understanding how the parts work together, and then using rigorous and systematic thinking (theoretical thinking) to explain what you learned by working through this process.
34. **taxonomy tool** (a kind of cognitive tool) - According to *Oxford Languages*, *taxonomy* means “the branch of science concerned with classification” or “a system of classification” (2024).
35. **textual analysis essay** – A *textual analysis essay* describes and explains how and/or why the author wrote a text in a certain way, applying a theoretical lens to a text (book, story, film, poem, essay, etc.).
36. **theory** – *Theory* is a systematic explanation of how or why things are, based on rigorous thinking and analysis.
37. **thesis** – The *thesis* is the point of the paper. There is always one, and only one, thesis for each paper.
38. **Zone of Proximal Development** – The *Zone of Proximal Development* is part of Vygotsky’s model to explain how people learn, and how learning shapes human development, and is the gap between what you can do (or understand) with some help and when you can do (or understand) on your own (without help). Help can come from supports, peers, mentors, teachers, etc.

