One Step Further Towards Critical Thinking

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One Step Further Towards Critical Thinking

Outline
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I. Prerequisites
   Prior knowledge concerning
   1. coherence
   2. consistency (unity)
   3. completeness
   4. summarization skills
   5. dialogue strategies
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Knowledge concerning coherence:
Criteria and examples—

1. J. K. Rawling wrote *Harry Potter*. It is a novel about sorcery, magic and adventures.

2. There was an accident on the road. The accident was caused by drunk driving and it killed five people.
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3. As students, our time is almost fully occupied. We go to school during the day, and we do homework at night.

4. People tend to believe that superstition is linked to ignorance, but this is not entirely true. Many brilliant people have been superstitious.
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5. My mom went grocery shopping in the morning. She cleaned our apartment in the afternoon.

6. Many people who achieved great things were superstitious. For example, Napoleon was afraid of cats.”

7. Joe watched the world cup all night. No wonder he dozed off during the meeting.
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Knowledge concerning consistency (unity):
1. Unity of contents
2. Unity of point of view
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Knowledge concerning completeness:
1. Beginning (Introduction)
2. Development (Body) (viewpoint followed by illustrations/explanations/supporting details)
3. Ending (Conclusion)
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Development—an example

Knowing a foreign language prepares us to become world citizens. Today the world has become smaller because of the airplane, the telephone, the television, and computers. People all over the world get in contact with each other for business, scholarship, and friendship. Knowing a foreign language such as English enables us to visit, and communicate with the rest of the world without much difficulty.
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Ending—
For expositions:
1. Repetition of main ideas
2. Signal words
3. Offering invitation or warning
4. Change of subject matter
For narrations:
   The moral of the story
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II. The graphic organizer

(See appendix)
III. The charting method:

1. 編碼：將段落依序標號1至x。
2. 作圖：發A4紙一人一張，橫放，讓學生在距離頂邊三公分的地方畫一條直線橫跨A4紙，將橫線均分為x等分，並在每一等分的上方填上該等分代表的段落號碼。
3. 摘述：只讀每一段第一句，將關鍵字詞寫在相應段落等分下方空白，即圖表第二列。鍵字詞宜精簡，至多不超過三個字。寫完之後，在第二列下方畫一條橫線，並將各關鍵詞用直線區隔。
4. 分析：根據閱讀圖表第二列，分析各段關係，將分析結果寫在第三列。寫完後在下方畫一條横線。內容相似的用直線區隔。
5. 归納：根據閱讀圖表第三列，用一句話歸納出選文的主要內容(main idea)。寫完後在下方畫一條線。
6. 回應：選文的主要內容已經知道，可以寫一句回應。做為閱讀選文的預備。
Moon Power

1. The Moon is the Earth’s only natural satellite. We can see it every night, and sometimes in the daytime, when it is not covered with clouds. Yet it is totally beyond the reach of human beings—unless they are astronauts.

2. The length of a month is measured by the revolution of the Moon around the Earth. Thus, in English and Chinese as well as in many other languages, the word “month” is derived from the word “moon.” But although we know it is really up there, the Moon seems very mysterious to us because it is so unreachable, like a dream. It is also very beautiful, shining like a jewel in the night sky. Both of these may be the reasons why we easily get romantic feelings when looking at the Moon.

3. In human history, the Moon has been the subject of many works of art and literature. And it is also the inspiration for countless artists, poets, and musicians. Many masterpieces are composed with the inspiration from the Moon, like Beethoven’s “Moonlight” and many of Li Po’s poems.

4. The Moon also has its mysterious and magical meanings in the cultural aspect. Some people believe that the Moon affects the way people act. During a full moon, many strange things seem to happen. People do and say things that are not normal. Does the Moon really have some unknown power? Or is this only a superstition?

5. There have been several studies of how the Moon affects people. These studies have turned up some amazing facts. There has been an old belief that more people become insane during a full moon. To test this, a doctor examined the records of several mental hospitals. She discovered that most patients were admitted during two periods of a month: the full moon and the new moon.

6. In addition, people’s bodies have been found to be affected by the Moon. Women get pregnant more easily during full-moon periods, and patients seem to lose more blood during operations when the Moon is full. Another research was on the link between the Moon and murders. Crime statistics in Miami over a fourteen-year period were examined. They showed that the murder rate tended to be higher during the time of full and new moons.

7. Is there a reasonable explanation for the Moon’s power over people? Some scientists think that the Moon moves people the way it moves the ocean tides. Since people’s bodies are 70% water, the Moon may somehow control the body and brain by moving the “sea” inside them.

8. While the Moon often seems so far away, it may be much closer to us than we know.
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>satellite</td>
<td>length of month</td>
<td>art and literature</td>
<td>cultural aspect</td>
<td>affects people</td>
<td>affects people’s bodies</td>
<td>An explanation</td>
<td>close to us</td>
</tr>
</tbody>
</table>

**Introduction:**
The moon in nature

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction: The moon in nature</td>
<td>How the moons affects our culture</td>
<td>How the moon affects us—mentally and physically</td>
<td>Why the moon has power over us</td>
<td>Conclusion</td>
<td></td>
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</tr>
</tbody>
</table>

**Main idea:** Being the only satellite of the earth, the moon has to do with our culture; it affects people and an explanation how.

**My response and evaluation:** I need to do more reading concerning how the moon affects people. Incidentally, the organization is a bit loose; it needs rewriting.
IV. The four level questions:

- What are some facts/ideas mentioned in the reading? (factual)
- What does the moon have to do with our culture? (reflectional)
- What does the moon have to do with our behavior? (reflectional)
- What does the moon have to do with our body? (reflectional)
- How does the moon affect us? (interpretational)
- Is there a logical connection between the paragraphs, why or why not? (decisional)
- If the logical connection is not good, how will you revise it?
- What is the main idea of this reading? (decisional)
- What additional information can be added to the reading? (decisional)
- What are your responses/criticisms to this reading? (decisional)
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V. The Critical Reading

1. 第一段內容稍有離題，違背了一致性的要求。
2. 與第二段沒有明顯的連貫。違背了連貫的要求。
3. 因此第一段不適合作為開頭，因開頭不適合，違背完整性的要求。
4. 第二段前半所述曆法制定與月份應為月亮對文化層面之影響。後半所述可能為第三段之原因。且文學與藝術也可歸類為文化層面。
5. 第四段所述滿月會有奇事發生是否為迷信，亦為文化層面。
6. 原文似乎未顧及以上數點。既然如此，不如將文化層面字眼省略，只提月亮在那些方面和我們有關係或影響。
VI. The Rewriting

Moon Power--Revised

The Moon is the Earth’s only natural satellite. We can see it every night, and sometimes in the daytime, when it is not covered with clouds. Because of this, it has impacts on many aspects of us.

First, it affects our culture. The length of a month is measured by the revolution of the Moon around the Earth. Thus, in English and Chinese as well as in many other languages, the word “month” is derived from the word “moon.”

Second, it affects art and literature. We easily get romantic feelings when looking at the Moon. Although we know it is really up there, the Moon seems very mysterious to us because it is so unreachable, like a dream. It is also very beautiful, shining like a jewel in the night sky. Both of these may be the reasons why the Moon has been the subject of many works of art and literature. And it is also the inspiration for countless artists, poets, and musicians. Many masterpieces are composed with the inspiration from the Moon, like Beethoven’s “Moonlight” and many of Li Po’s poems.

Third, some people believe that the Moon affects the way people act. During a full moon, many strange things seem to happen. People do and say things that are not normal. Does the Moon really have some unknown power? Or is this only a superstition?

There have been several studies of how the Moon affects people. These studies have turned up some amazing facts. There has been an old belief that more people become insane during a full moon. To test this, a doctor examined the records of several mental hospitals. She discovered that most patients were admitted during two periods of a month: the full moon and the new moon.

In addition, people’s bodies have been found to be affected by the Moon. Women get pregnant more easily during full-moon periods, and patients seem to lose more blood during operations when the Moon is full. Another research was on the link between the Moon and murders. Crime statistics in Miami over a fourteen-year period were examined. They showed that the murder rate tended to be higher during the time of full and new moons.

Is there a reasonable explanation for the Moon’s power over people? Some scientists think that the Moon moves people the way it moves the ocean tides. Since people’s bodies are 70% water, the Moon may somehow control the body and brain by moving the “sea” inside them.

While the Moon often seems so far away, it may be much closer to us than we know.
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VII. The summary
Summarization skills—
1. must contain main idea
2. add explanations when necessary, but not too detailed
3. avoid personal opinions
4. exclude contents not mentioned in the reading
Summarization: an example

Moon Power

Being the Earth’s only natural satellite, the moon has a close relationship with us. First, the length of a month is measured by the revolution of the Moon around the Earth, and, in many languages, the word “month” is derived from the word “moon.” Second, because of being mysterious and beautiful, the Moon has been the subject and inspiration of many works of art and literature, including Beethoven’s “Moonlight” and many of Li Po’s poems. Third, the Moon affects human behavior. For example, during a full moon, people do and say things that are not normal, and more people become insane. Fourth, the moon affects people’s bodies. For example, patients seem to lose more blood during operations and murder rate tended to be higher during the time of full and new moons. Finally, the moon affects people probably because the Moon moves people the way it moves the ocean tides.
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VIII. The Dialogue
Dialogue strategies—
1. Break the ice
2. Center around one topic, until the details have been exhausted
3. Supply necessary information
4. Ask questions
5. Give comments, opinions or criticisms pertinent to the topic
Dialoguing based on the reading—
(After class in a lobby)
Mr. Chen: Hi, Sarah, how are you?
Sarah: Sir, I found the lesson moon power interesting.
Mr. Chen: Did you?
Sarah: Yeah!
Mr. Chen: What interested you?
Sarah: Well, the lesson has both new and old information. The information I already know, such as the moon being the only natural satellite of the earth and how the length of a month is measured, is not so interesting. But I was not aware that the word month is derived from the word moon.
Mr. Chen: What else did you find interesting?
Sarah: I also knew that the moon has been the subject of many works of art and literature, and that the moon is the inspiration for countless artists, poets and musicians. But I wasn’t aware that the moon affects how people act.
Mr. Chen: How does the moon affect people’s behavior?
Sarah: Well, according to the reading, during a full moon, people do and say things that are not normal. And there has been an old belief that more people become insane during a full moon. Moreover, there are statistics that show that the murder rate tended to be higher during the time of full and new moons.

Mr. Chen: Does the moon affect people’s bodies, too?
Sarah: Yes, according to the reading. For example, women get pregnant more easily during full-moon periods, and patients seem to lose more blood during operations when the moon is full.
Mr. Chen: Is there a reasonable explanation for the moon’s power over people?
Sarah: Yes! Some scientists think that, since people’s bodies are 70% water, the water inside their bodies is moved by the moon the way ocean tides are moved.

Mr. Chen: Do you believe in this line of thinking?
Sarah: Yes and no.
Mr. Chen: How so?
Sarah: Well, there are many factors that influence us, such as education and association of bad companies. The moon may have an effect on us, but there have not been concrete scientific evidences that prove such beliefs. So I still take the reading with a grain of salt.

Mr. Chen: What you said makes sense. This means you not only understand the lesson, you also have your own thoughts.
Sarah: Thank you, sir. In addition to taking the reading with a grain of salt, I think some modifications are needed to make it more logical and consistent.
Mr. Chen: Do you?
Sarah: Yes! For example, the transition between the first and second paragraph is not smooth.
Mr. Chen: How would you rewrite it?
Sarah: I would probably rewrite it in the following wording: The Moon is the Earth’s only natural satellite. We can see it every night, and sometimes in the daytime, when it is not covered with clouds. Because of this, it has impacts on many aspects of us. First, the length of a month is measured by the revolution of the Moon around the Earth. Thus, in English and Chinese as well as in many other languages, the word “month” is derived from the word “moon.”
Mr. Chen: Good for you. You not only understand the lesson, you can also evaluate it. I am proud of you.
Sarah: Thank you, sir.
Mr. Chen: You’re welcome. It’s time for another class; let’s go.
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IX. Conclusions

1. 閱讀圖表法適用於說明文，幾乎每一課說明文都可以使用這個方法。建議教師多加使用，以幫助學生達到精熟的境界。

2. 本課課文架構雖然有改進之處，只是作者們發現的唯一例外，並不表示該課本之其他選文有類似問題。教師在教其他課文之時，也可帶領學生對正面的部分加以批判。
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3. While traditional high school English classes focus on helping students with the four skills of listening, speaking, reading and writing, this paper proposes that, in addition to the four skills mentioned, teachers of English can take one step further to help learners gradually develop competence in critical thinking. As a warm-up activity, a graphic organizer is used for students to brainstorm possible ways of presenting the topic to be discussed. Then a charting method is introduced for students to gain a quick understanding of the intended reading selection, followed by a careful reading of the passage. Afterwards they are asked questions of different levels of difficulty; namely, factual, reflectional, interpretational, and decisional. By systematically digging into the subject matter, it is hoped that students will gradually develop the competence in critical thinking.