Learn to Think &
Think to Learn

Wuling Senior High
Hope Yeh
2015/12/15
Task 1

Associations of Critical Thinking
THINK, PAIR & SHARE
Task 2
Thinking Bats
Warm-up: A Mini-task

HALLOWEEN GAME: THINKING BATS

- You are t
- Fun but th
- k. dea
- Ink from dif
- He informa
- Old. Don't s
- Tin what
- P & owl
- Copt all t
- Feet perspective
- Our goes
- Then

2015/12/30

Hope Yeh
What is Critical Thinking

ing
think
told
perspectives
question

instead
different always

accept
deep

Critical

simply
Task 3

Why Critical Thinking
Why Critical Thinking?

Students who regularly take part in class discussions are more likely to vote in later life, follow political news, be interested in the political process, and have confidence in their ability to influence public policy.

-- Keith Barton, Alan McCully, *Teaching History*, June, 2007
Rationale

(1) Social Reconstruction (1930s):
schools – change agents
students – elements for social change

(2) Critical Literacy (1960s):
(1) Marxist critical pedagogy toward texts
(2) to decode, analyze, deconstruct the texts in social, political, religious contexts
(3) to think flexibly about the texts
Goal

To help students develop

(1) the dispositions of a better thinker

(2) The basic thinking skills
Student Background

- 4 classes of 10\textsuperscript{th} graders
- English level: intermediate to high
- Having no experience of thinking training
# Planning of the Teaching

<table>
<thead>
<tr>
<th>週次</th>
<th>日期</th>
<th>段考進度</th>
<th>思考訓練活動</th>
<th>時間</th>
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<tr>
<td>1</td>
<td>8/31~9/4</td>
<td>L2 / 4U / 4K</td>
<td>Interest Survey, Speed Date</td>
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<tr>
<td>2</td>
<td>9/7~9/11</td>
<td>L4 / 4U / 4K</td>
<td>Pre-Assessment, Questionnaire, Facts &amp; Opinions</td>
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<td>9/14~9/18</td>
<td>L4 / L1 / 4U / 4K</td>
<td>Learning Pyramid, Debate on Philosophy, Fallacies</td>
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<td>10'</td>
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**Fact vs Opinion**
# Pre-assessment

**A Survey on Critical Thinking Training Activities**

Class ______ No. ______ Name _______________________

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<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
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</table>

1. 你喜歡思考嗎？
   Do you like to think？

2. 你認為思考重要嗎？
   Do you think thinking is important？

3. 你覺得你的思考周密嗎？
   Do you think that you can see things in perspective？

4. 你是否常用不同角度看同一件事情？
   Do you often see things in different ways？

5. 你通常對事物沒有特別想法或意見嗎？

2015/12/30  Hope Yeh
### Critical Thinking Pre-assessment

<table>
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<tr>
<th>Question</th>
<th>非常同意</th>
<th>非常不同意</th>
<th>同意</th>
<th>同意</th>
<th>沒意見</th>
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<td>你覺得你的思考周密嗎?</td>
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<td>23</td>
<td>1</td>
<td>0</td>
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<tr>
<td>你是否常用不同角度看同一件事情?</td>
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<td>27</td>
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<td>你通常對事物沒有特別想法或意見嗎?</td>
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<td>你是否可以和一位意見與你相左的人討論與合作?</td>
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<td>15</td>
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<td>0</td>
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<td>你知道什麼是批判性思考嗎?</td>
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<td>12</td>
<td>1</td>
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<td>你是否認為批判性思考訓練對決策與行動有所幫助?</td>
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</tbody>
</table>
Introduction to Critical Thinking

"Critical Thinking Explained"
A critical thinker can begin clear away the c_________, simply by q________ statements or assumptions.

“Who said that?”
“Is that source r________ement?”
“Do you have data s________ that claim?”
“Has that been scientifically p______?”
“Are you q______d to speak on this topic?”
“Do you have a personal stake in this issue?”

- Discussions and debates can promote critical thinking and that produces more involved c______.
- Students who regularly take part in class discussions are more likely to _____ in later life, follow p______ news, be interested in the political process, and have confidence in their ability to i__________ public policy.
Task 4

Fact or Opinion
Fact or Opinion?

Examine the claims made in the following adverts. Discuss with your partner which statements are fact and which are opinion.
Task 5
What Type of Fallacy?
Critical Thinking—Common Fallacies

*Fallacies are mistakes in reasoning.*

1. **Hasty generalization** [輕率概括]: This is a fallacy where assumptions are made about a whole group or range of cases based on an inadequate sample (usually because the sample is atypical or just too small). Stereotypes are a common example of the principle underlying hasty generalization.

   ➔ 春嬌被志明劈腿了，春嬌就說“天下男人沒有一個是好東西”。

2. **Appeal to the herd** [訴諸群眾]: People use the beliefs or prejudices of the crowd to support his/her own argument. Such arguments often depend on popular generalizations and assertions.

   ➔ “大家都說張先生是個要求嚴格的老闆，我雖然不在他的公司上班，但我覺得他就是個要求員工會很過分的老闆。”
Common Fallacies

Critical Thinking Practice
Integrated into the Lesson

Common Fallacies Practice

B1 L4 Do you treat left-handers right?

Instructions: The sentences underlined contain either fallacies. Choose from the list below to specify them.

1. I believe left-handers are more musically or artistically talented than right-handers. Leonardo da Vinci and Charlie Chaplin are among the best of them. A lot of best baseball players are also left-handed. [Hasty generalization]

2. I want to buy some tools specifically designed for left-handers because all of my left-handed friends are using those user-friendly tools now, like pens, scissors and pencil sharpeners. [Appeal to the herd]
Task 6
What Colors are the 6 Thinking Hats
Six Thinking Hats Video
Six Thinking Hats

🌟 The idea of six thinking hats is proposed by ____________________________
from _______________ (nationality). The six thinking hats represent six different ways
of thinking or p______________, which help us look at a problem or an issue from
different angles.

➡️ What colors are the hats? And what do we do with each hat on?➡️

Let's Practice
六頂思考帽 (Six Thinking Hats)

一、思考帽的存在意義:

強調慎重的思考，由爭辯的討論方式改變為繪製地圖的方式。

二、應付式 (反應式) 思考與慎重式思考的區分:

1. 應付式思考：在行止呼吸間的反應式思考。
2. 慎重式思考：計畫繪圖式的思考，必須有創意、計畫、行動，故又稱「行動思考法」。

三、六頂思考帽的存在價值與目的:

1. 響應朋友為表現：化思想為行動，成為一位思考者。
2. 角色扮演：讓自己敢想敢說，而不用擔心會傷害自我。
3. 引導注意力：為超越反應式思考，將注意力導引至不同的層面。
4. 方便：讓思考者可以自由變換思考型態。
5. 頭腦可能釋放何種化學物質的基礎：不同的思維模式大腦將分泌不同的荷爾蒙。
6. 遊戲規則的建立：任何參與這個遊戲的人，都必須了解它的規則。
7. 簡化思考：讓思考者一次只做一件事，不必同時照顧情緒、邏輯、資料、希望及創意。

(一) 白色思考帽 — 客觀的事實與證據

1. 白色象徵中立而客觀。
2. 白色思考帽代表客觀的事實 (包括：信仰事實及驗證事實)、數據及資料。
3. 戴上白色思考帽不允許表達自己的意見，但允許報導他人的意見。

如：哪些是我們已知的訊息？
DeBono's Thinking Hats

**White Hat®**
- Facts, Information, Data, Research Knowledge (Bloom)
- What do you know about...
- What are the facts about...
- What do you need or want to know about...
- Where might you go to find out about...

**Red Hat®**
- Feelings, Hunches, Emotions, Intuition Evaluation (Bloom)
- What are you feeling now?
- Which do you like best, based on your feelings?
- What prejudices are present?
- What is your hunch about...
- What is your gut feeling about...
- What does your intuition tell you?

**Black Hat®**
- Caution, Danger, Wisdom, Risks, Weaknesses, Analysis (Bloom)
- What should you be cautious about...
- Of what should you be careful?
- What are the consequences of...
- What words of wisdom might come from this?
- What were the difficulties of...
- Why won't / didn't this work?
- What did you dislike about...
- What are the risks of...

**Yellow Hat®**
- Benefits, Good, Positives, Value, Strengths Analysis and Evaluation (Bloom)
- What is good about...
- What are the benefits of...
- What is a positive outcome of...
- What is the value of...
- Can this be made to work?
- What did you like about...

**Green Hat®**
- Creativity, Imagination, New Ideas, Possibilities Synthesis (Bloom)
- What if...
- Can you create other ways to do this?
- How would you solve the problem?
- What new ideas can you think of?
- What other possibilities are there for...
- Express yourself through literature, poetry, drama, media etc.

**Blue Hat®**
- Thinking, Metacognition, Summarizing, Concluding, Organizing, Listing Application and Comprehension (Bloom)
- Tell how you got your answer.
- Tell the order of events for what you have read.
- What was the problem; how was it solved?
- Summarize?
- What is your action plan?
- What might you do next?
- Track your thinking...
- Look from the sky!
- Impact!
Summary of Edward de Bono's Six Thinking Hats

Six Hats

- Blue: Agenda, Decision, Global, Overview
- Black: Critic, Analyst
- Red: Emotions, Hunches, Feelings, Instincts
- Green: Creative, Growth, Ideas
- Yellow: Logical, Positive
- White: Facts, Data, Figures
Edward de Bono's 6 Thinking Hats

**BLUE HAT-Process**
The Big Picture/Thinking about Thinking
What thinking is needed?
Where are we now?
What do we need to do next?

**RED HAT-Feelings**
Intuition, hunches, instinct.
How do I feel about this?
What do I like about these feelings? (do not like?)

**YELLOW HAT-Benefits**
The Positives
Why is this a good idea?
What are the advantages and benefits?

**WHITE HAT- Facts**
What do I know?
What do I need to find out?
How will I get the information I need?

**GREEN HAT- Creativity**
What new ideas are possible?
What is my suggestion?
How can this be changed or improved?

**BLACK HAT- Caution**
The Negatives
What problems could arise?
What are the disadvantages?

www.smarttinker.com
Task 7
Choose a Topic to Discuss
Wearing Shorts to School?

https://docs.google.com/spreadsheets/d/1dpGp6dSmjyR5Qd8M936__grSK9xZpxHqhIMvbtR4n6I/edit#gid=1071642442&vpid=A1
Introduction to Critical Thinking

Cooperative Controversy

Talk About This...

Debate: Please read the news and answer the question below.

Should we have philosophy training in our education?

Pros

Cons

https://docs.google.com/spreadsheets/d/1PUY1ATLvJMMPHbeEZyUGo2Hom7IIBcnt8M6VtIqtilE/edit?gid=0&vpid=A1

Hope Yeh
The Start of the Journey

LEARNING PASSPORT
Task 8
The Learning Pyramid
Think to Learn

Instruction: Choose words from the left and fill them in the Pyramid.

Practice by Doing
Teaching Others
Demonstration (示範)
Audio-visual
Discussion
Lecture (聆聽演講)
Reading

Think Further...

Can I Believe It All?

1. Is it the result of a trustful research?
2. Is there anything wrong about the statistics listed above?
3. Is learning equal to retention? If not, what do you think learning should include?
Learn to Think

BLOOM’S TAXONOMY

- Remembering
- Understanding
- Applying
- Analyzing
- Evaluating
- Creating
Learn to Think

Did You Know

By **2020**, human knowledge will double every **12 hours**.
Task 9

What Does It All Mean?
Learning Map

- Competency For The 21st Century
  - Learn
  - Thinking Skill
  - Act

- Write About This...
  - Brainstorm:
    - To be successful in the 21st century, what abilities do you think you should prepare for yourself?
  - creativity

Task 10
What are the Competencies Needed?
Q2: To be successful in the 21st century, what abilities do you think you should be equipped with?

- Critical Thinking
- Curiosity
- Collaborate
- Promote Change
- Can speak at least 2 foreign languages
- Crush resistance
- Responsibility
- Determination
- High efficiency
- Be a self-starter
- Expressiveness
- Interpersonal skill
- Leadership
- Foresight

- Flexibility
- Initiative
- Frustration tolerance
- Social skills
- Multilingual
Task 11
How do You Keep Abreast of Current Issues?
Comparing the Two News Media

CNN VS. Al Jazeera

Israel 'using excessive force' on Palestinian children

Israel violations international law by killing Palestinian children during the latest surge, say rights groups.

Israeli forces have been using "disproportionate violence" against Palestinian children as they killed at least ten this month during the ongoing conflict that engulfed Israel and the occupied Palestinian territory.

Between October 6 and 12, at least 203 Palestinian children were injured by Israeli soldiers or settlers in the West Bank and Gaza, according to the United Nations Office for the Coordination of Humanitarian Affairs.

"Research by many scholars has shown that depression, anxiety, post-traumatic stress disorder and general psychological difficulties are common among Palestinian children," she said.

Protests against Israel's ongoing occupation have brought violence in Israel, the West Bank and the Gaza Strip.

"Short-to-kill" - Critics have argued that the children could have been apprehended without the use of lethal force. "This raises concerns that Israeli forces have apparently adopted a "short-to-kill" policy, which in some incidents may become unjust killings," DCI-Palestine's Parker said.

After 13-year-old boy was fatally shot during a demonstration in Bethlehem on October 5, the Israeli military published a statement claiming that the killing was "unnecessary" amid that soldiers were aiming at a rival adult.

Parker said that international law prohibits "the use of firearms except when strictly unavoidable to protect life. We regularly find that children killed by Israeli forces during demonstrations were no direct, mortal threat to the life of any police officer or soldier the time they were killed".

© DCI: Defence for Children International
Using Soapstone

Speaker

Occasion

Audience

Purpose

Subject

Tone

SOAPSTone: A Strategy for Reading and Writing

Class: ______ No: ______ Name: ______

SOAPSTone (Speaker, Occasion, Audience, Purpose, Subject, Tone) is an acronym for a series of questions that students must first ask themselves, and then answer, as they begin to read an article or plan their compositions.

1. Who is the Speaker? ____________________
   (Who are you? What details will you reveal? Why is it important that the audience know who you are?)

2. What is the Occasion? ____________________
   (Knowledge of the larger occasion and the immediate context of the current event.)
SOAPSTone

Speaker — Who wrote this source?
Occasion — When was it written?
Audience — Who was this written for?
Purpose — Why was this written?
Subject — What is the topic/focus?
Tone — What type of language is used?
Media Literacy

The truth?
Since all mass media are biased, you will only get their versions of truth.
Mini Project 請依照老師在課堂上宣布的指定題目撰寫 (12/4 24:00 截止)
1. Should We Have Philosophy Training in Our Education? (Pros and Cons)
   https://goo.gl/0uFtuy
2. Should We Wear Shorts While Entering and Going Out of Our School? (6 Thinking Hats)
   https://goo.gl/JI14eR
3. The Meeting Between Ma Ying-Jeou (馬英九) and Xi Jinping (習近平) (6 Thinking Hats)
   https://goo.gl/ceP80r
4. Media Network Comparison --- CNN & Aljazeera
   https://goo.gl/oTmEci
5. 104 News Briefing Script 請上傳簡報比賽逐字稿
   https://goo.gl/iulTLf
<table>
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<tr>
<th></th>
<th>111</th>
<th>06 邱士發，22 葉明丞</th>
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<tbody>
<tr>
<td></td>
<td><strong>We should have Philosophy training in our education, here are some reasons. First, Philosophy Training can help us thinking about some of life's most basic, meaningful, and difficult questions, like &quot;What is the best sort of life to live?&quot;, &quot;What is it to be a human?&quot;... Second, Taking philosophy courses imparts skills that will be useful not only in any career but also in your personal life. Last, It can help you to live better by helping you to understand yourself as a thinking, acting being.</strong></td>
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<tr>
<td></td>
<td>If we have Philosophy Training, we have to learn one more subject. It will make us do more reports than before and put a lot of stress on us. Our time is already very less. If we have to spend our time to study Philosophy, our brain won’t take it. And our ability of primary subject may decrease, because we have no time to study such many subjects.</td>
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<th>102</th>
<th>23李志，24房宣年</th>
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<tr>
<td></td>
<td><strong>&lt;support&gt; If we have Philosophy training in our education, we can think by different views to the same thing. Thus, we can discover other things that we did not understand. In addition, we can also propose more and more questions and getting answers from the thought of ourselves.</strong></td>
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<td><strong>&lt;opposition&gt; In the education system for now, a senior middle school student have to learn more than ten subjects, if there add to a new class, students will feel tired, and then they will lose interest, even be dislike. And other reason, it is not sure that all of students are like Philosophy, for example: there are some practical people in our school, and maybe they won’t spend time on the kind of training.</strong></td>
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<tr>
<td></td>
<td><strong>We should have philosophy training in our education, having philosophy training have a lot of advantages. First of all, it can improve our capacity for independent thinking to judge between right and wrong. Second, you can solve</strong></td>
<td></td>
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|   | **We don't think we should have philosophy training at school. Because of our education system, we have to spend a lot of time studying and preparing for our tests, so we don't have much time to practice philosophy.** |

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<th></th>
<th>115</th>
<th>38劉宣義，40羅子菡</th>
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英語時事簡報比賽
(English News Briefing Contest)

一、目的:
藉由英語簡報方式，鼓勵學生針對國際重要時事議題作深入探討，以培養國際觀與思辨能力；同時強化學生學習英語之興趣以及增進英語的表達能力。

二、對象：本校學生自由組隊報名(可以跨班)參加，每隊二或三人。

三、比賽時間：104年11月20日（星期五）
比賽規則

簡報時間：每組3分鐘。

(二) 主題：配合國際重要時事議題，自行擬定題目，自由發揮簡報內容。

(三) 每位參賽者皆需上台報告，非參賽者不可參與協助比賽過程。

(四) 比賽過程不得攜帶講稿上台。

(五) 若有引用文獻，請註明詳細出處及參考資料。

(六) 簡報內容格式以PowerPoint方式製作（請使用Office 2007可開啟之版本）並以英文發表。
賽前訓練

(一) 參賽各組皆需參與一小時之講習
(11/4、11/5中午在美育館二樓分組教室，二天擇一參加) 未參加組別取消參賽資格。

(二) 賽前一週(11/9~11/13)可到英文科辦公室諮詢或排練，可以公假處理。

頒發獎項：分為一年級組及二、三年級組，選出前三名及佳作數名
The Current Situations in the Arctic
The Gun Control in the U.S
ISIS: An International Threat
One Belt and One Road
Child Labor in India
Racial Discrimination
EU Referendum in the United Kingdom: Out or In?
Refugee Crisis in Europe
Western Intervention In the Middle East
Conflict in the South China Sea
Chemically Castration in Indonesia
O2O?! The Value and Success
Canada’s President, Justin Trudeau
Arctic Militarization
Malala Youth Award
The Rise of Rainbows-LGBT
The History and Future Trend of the Cellphone
I Phone People With iPhone, Robots: “To Be” or “Not To Be?”
Gay Marriage
The Terminator of Bottled Water: Ooho!
South Korea Economy Rebounds After MERS Outbreak
Bye Google, Hello Alphabet!
Dengue Fever
高一27組參賽
高二11組
Students’ Feedback

1. 以後看事情不要只用單方面去看，多面向看才客觀。
2. 時間似乎有點趕，不過是因為還要上正課。
3. 英文進步，思考能力增強，一個活動的時間可拉長。
4. 對於生字有更詳盡的了解，關於謬誤等的英文使用方式有所進步，可以增加批判思考課的堂數。
5. 了解批判性思考，並能以這些思考去對事情做判斷，希望還有機會再繼續。
6. 個人單字庫激增，在別的地方看到認識的單字會覺得我很厲害。
7. 可以學到以前沒接觸過的課程，還不錯。
8. 學到了用不同的思維去思考各個事情，轉移個彎，事情其實也可以是一體多面的。
9. 我覺得老師很投入，會進而影響我對課程的熱忱。
10. 學到更多平常上課不會上的事，英文能力較以前進步。

2015/12/30 Hope Yeh
2. 我願意繼續多了解一些思考的技巧和訓練。計數

- 非常同意: 26.2%
- 同意: 52.4%
- 沒意見: 21.4%
5. 經過本學期的活動，我覺得批判性思考很重要。

計數

不同意
2.4%

同意
40.5%

非常同意
16.7%

沒意見
40.5%
7. 這學期我最感興趣的活動為...計數

- Six Thinking Hats (六頂思考帽) 議題海報 26.2%
- Facts/opinions 19%
- CNN及半島電視台的新聞閱讀 38.1%
- Common Fallacies 16.7%
Myths About Critical Thinking

CT is too difficult to learn.

Ss are not interested in CT.

CT is anti-social or negative.
Reflections & Suggestions

- Allow Ss more time for CT
- Bring in more issues for discussion
- Do more follow-up practices
- Allow Chinese (L1) in discussion
Reflections

• Give Ss chances to make presentations
• Help Ss to build media literacy
• Encourage Ss to keep a news journal
What do you think?
The End