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يُؤْتِي سُبُلَ الْإِسْلَامِ أَنْبَاءَ الْإِحْسَانِ مِلَّةً سَيِّدَةً

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Garden of Knowledge and Virtue

HSG0314: THINKING SKILLS STUDENT'S WORKBOOK

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**For internal circulation only*

LEADING THE WAY

KHAUFIAH - AMĀNAH - IQRA' - RAHMATAN UL-ĀLAMĪN

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WEEK 1: INTRODUCTION TO THINKING

This worksheet is prepared based on Ruggiero (2010).

What are my objectives for this chapter?

1. See the whole purpose and flow of this course
2. Know the meaning of thinking and mental activities related to it

Let's achieve the objectives above!

1.1. Why is it important to think?

- a. It is needed for you to communicate well
- b. It is needed for you to choose well what to believe and do

1.2. What will we learn to improve our thinking?

- a. What is thinking
- b. What are the types of thinking (_____ & _____) and how to use them
- c. Creative thinking – De Bono's CoRT1 (1- _____, 2- _____, 3- _____, 4- _____ & 5- _____
Thinker's Keys
- d. Critical thinking – Arguments
 - What is argument
 - Standards to observe when arguing or to check when receiving arguments
 - Barriers to observe when arguing or to check when receiving arguments
 - Logical Fallacies to avoid when arguing or to check when receiving arguments
- e. You will apply all these skills in your life, through your project, cases that you encounter and discussions about issues in our society.

1.3. How do I know if I have learned these?

- a. When you communicate, you are able to give strong arguments about why people should believe you.
- b. When you listen, you are able to know whether the argument is worth following or not (believing or doing).

1.4. What is thinking?

It is a purposeful mental activity over which we exercise some _____.

But then... sometimes, thinking can happen when we don't control it (unconsciously)

So, here's a more stable definition,

Thinking is any mental activity that helps 1- _____
2- _____ 3- _____
4- _____ 5- _____

1.5. What are the mental activities that are considered thinking?

1- _____ 2- _____ 3- _____ 4- _____
5- _____ 6- _____ 7- _____ and 8- _____

are among the most important ones. There are also others like identifying, analyzing, generating, considering etc.

1.6. What is the nature of thinking?

_____ and _____.

Exercise: Based on your own experience, provide example(s) that reflect mental activities that are considered as thinking.

WEEK 2: THINKING FROM ISLAMIC PERSPECTIVES

This worksheet is prepared based on Rosnani & Suhailah (2003) and Malik Badri (1999).

What are my objectives for this chapter?

1. To view thinking from an Islamic perspective
2. To identify and apply the three stages of tafakkur

2.1. How does this concern me as a Muslim?

We have two main roles, being a servant ('abd) and a vicegerent (khalifah):

"I have only created Jinns and men, that they may serve Me." [51:56]

"Behold, your Lord said to the angels: "I will create a vicegerent on earth..." [2:30]

In order to fulfil these roles, Allah s.w.t. has given us tools:

"We have honoured the sons of Adam; provided them with transport on land and sea; given them for sustenance things good and pure; and conferred on them special favours, above a great part of our creation." [17:70]

The special 'tool' that is granted to us and not the other creations is the ability to think (al-'aql). So thinking is required to fulfil our responsibilities.

2.2. Why has Allah s.w.t. asked us to reflect (contemplate) upon His signs?

The creations, *"The likeness of the life of the Present is as the rain which We send down from the skies... Thus, We explain the Signs in detail for those who reflect."* [10:24]

The Qur'an, *"(Here is) a Book which We have sent down unto you, full of blessings, that they may meditate on its Signs, and that men of understanding may receive admonition."* [38:29]

2.3. Why is performing tafakkur important?

"one hour of contemplation is better than a whole night's vigil in worship" (Hasan al-Basri)

"remembrance of God is a good deed, but contemplation of God's favours is the best form of worship." (Umar ibn Abd al-Aziz)

2.4. How do I practice one of the ways of Tafakkur (Contemplation) on creations?

Stage 1 – _____.

Describing the creation using the 5 main senses

Example: Table (creation) Stage 1:

It is heavy, It has 4 legs, it smells like wood, it has a smooth surface, it is white in colour.

Stage 2 – _____.

- i. One of the ways to develop _____ is to think about **the general purpose of the creation.**
- ii. One of the ways to develop _____ is to pay closer attention to its design, how it is created in a certain way and think what's the benefit it was created like that? We can do this by focusing on one **specific part of the item and explain the specific purpose** it was created for.

Example: Table (creation) Stage 2:

(Appreciation) The purpose of the table is to put things or decorations.

(Astonishment) It is designed with 4 legs, so it is stable and avoids it from falling down every single time.

Stage 3 – _____.

When astonishment and appreciation are developed, it should be attributed to something, that is the source of what we appreciate & astonished, Allah s.w.t. There are many ways to relate these with Allah s.w.t., one of the simplest ones is:

2.4.1. By relating the creation tracing back to how it started from

Example: Table (creation) Stage 3: Table are made from woos and they are made from trees. Allah s.w.t made the trees grow which no one can do it.

2.4.2. **Deeper level:** By relating the aspects of the creation with Islam

A deeper level of Stage 3 *tafakkur* is to relate the characteristics of the creation with various principles taught in Islam.

Example: The legs of the table help it to be stable and strong which can avoid it from falling down. This can be referred to stable and strong 'Aqidah, which can avoid us from falling or astray from the right path.

EXERCISE

Exercise: Apply *tafakkur* on these creations.

2.4.2.1. Handphone

2.4.2.2. Spectacle

2.4.2.3. Cloud

2.4.2.4. Chair

2.4.2.5. Car

2.4.2.6. Pillar

2.4.2.7. Dustbin

2.4.2.8. Sun

2.4.2.9. Stairs

WEEK 3: TYPES OF THINKING

This worksheet is typed based on Bassham, Irwin, Nardone & Wallace (2011), Amabile (1996) and Creative thinking: Characteristics & Traits (n.d.).

I. What are my objectives for this chapter?

1. Know what is critical thinking and its dispositions
2. Know what is creative thinking and its dispositions
3. Differentiate between the two and apply them in our daily lives

Let's achieve the objectives above!

3.1. What is Critical Thinking?

Critical thinking is the general term given to a wide range of _____ and _____ needed to:

- (1) Effectively _____, _____, _____ and _____;
- (2) to discover and overcome _____ and _____;
- (3) to formulate and _____ in support of conclusions;
- (4) and to make _____, _____ about what to believe and what to do.

(Bassham, Irwin, Nardone & Wallace, 2011, p. 1)

3.2. What are the dispositions of a critical thinker? (Bassham et al., 2011, pp. 25-26)

| | |
|---|---|
| Have a passion to comply to the standards of critical thinking. | Are sensitive to avoid oneself from being affected by the _____ thinking. |
| Are skilled at _____ | Reason logically the conclusion from the given premises. |
| Intellectually honest, a critical thinker recognizes their limitations. | Are open to criticisms of beliefs and assumptions. |
| Think independently and not afraid to go against the group's opinion. | Able to get the heart of the issue and not be _____ |

| | |
|--|--|
| Intellectually_____, a critical thinker challenges even the most basic beliefs. | Pursue truth and are curious about a wide range of issues. |
| Intellectually perseverant, a critical thinker pursues truth despite difficulties. | Based beliefs on_____ rather on personal preference. |

3.3. What is Creative Thinking?

It is thinking that produces:

(a) novel, appropriate, _____ , _____ or valuable response to the task at hand and;

(b) the task is _____ rather than algorithmic

(Amabile, 1996, pp. 35-36)

3.4. What are the dispositions of a creative thinker?

_____ - wanting to know more about something; a desire to dig deeper into a subject: an unwillingness to settle for conventional explanations.

_____ - the faculty or action of producing ideas, mental images of what had not been experienced; the ability to consider alternative points of views; ways of life; and beliefs both across time and across social and physical space. Imagination is also the ability to pose counterfactuals ("what ifs"), to suppose, and to reason through the implications of such alternative scenarios.

_____ - the ability to go against the grain of the usual or expected

_____ - the willingness to undertake a venture that may result in a reasonable loss or damage to oneself

(Creative thinking: Characteristics & traits, n.d.)

3.1. What is the main difference between critical and creative thinking?

While there are few overlapping characteristics, critical thinking focuses on examining and understanding something while creative thinking does not. Creative thinking focuses on producing new and useful ideas which critical thinking does not.

3.2. How to apply critical (CT) and creative thinking (CvT) on an item and a problem?

Applying critical thinking (CT):

Applying CT is similar to *Tafakkur* Stage 1&2 combined. Remember that CT is about focus on _____ and _____ an item or a problem.

Example of applying CT on an item (e.g. Spectacle):

Spectacle has 2 lenses so it can accommodate different power for lenses needed for different eyes. It is created with different frames so it can be suited with different styles each person preferred. At times it is made with material like plastic to make it portable, yet at times, it is made with material like metal to make it more durable and stable.

Applying CT on a problem are generating statements which helps you to understand the problem better. To generate these statements, questions must be asked. So here, we are focusing on asking questions that will help us understand the problem better.

Example of applying CT on a problem (Obesity):

What usually does that person eat daily? Does that person do any exercise regularly?

When did this problem start to occur?

Applying creative thinking (CvT):

To apply CvT, you want to consider the information gained from CT previously done.

When you understand the item or problem, you will generate alternatives to change the item, or to solve a problem which are _____, _____ and _____.

Example of applying CvT on an item (e.g. Spectacle):

The camera can be added to help you record video easily. Tracker can be added so you will lose it anymore. Using rubber like materials so it will not easily be dropped.

Example of applying CvT on a problem (e.g. Obesity):

Notice the other things in life that will make that person healthy, like eating different types of vegetables each day. Have a group of friends that compete on ideal Body Mass Index (BMI).

EXERCISE

Exercise: Apply CT & CvT on these items and problems.

a. *A ceiling fan*

Critical Thinking:

Creative Thinking:

b. *A mosque*

Critical Thinking:

Creative Thinking:

c. *Mamat: "I have had problems with my roommate. He always uses vulgar words when talking to me and I feel uncomfortable. What should I do?"*

A. Critical Thinking:

Creative Thinking:

d. *Yourself: "I am feeling so stressed out because I am struggling to focus during my online classes. What can I do?"*

Critical Thinking:

Creative Thinking:

WEEK 4: STANDARDS OF CRITICAL THINKING

This worksheet is typed based on Bassham, Irwin, Nardone & Wallace (2011).

What are my objectives for this chapter?

1. Know the 8 standards of critical thinking and how to utilize them in arguments

4.1. What are the 8 Thinking standards?

a. _____

Arguments should be well-thought and considered many aspects of the issue. It is also providing sufficient thought in thinking about something.

Example:

- Completeness: *A company only needs to hire new employees to keep themselves in the business because they need new ideas for the future.*

+ Completeness: *A company should hire new employees, retrain the senior employees and have a review of their current management system because a holistic improvement is better than focusing on one aspect.*

b. _____

Arguments should be clear and direct to the point. 'Beating around the bush' in an argument may cause difficulty for people to understand it.

Example:

_____: *It is essentially crucial to muster and unite sufficient manpower to bring forth development towards a constitution of strong and infallible country. Therefore, Malaysia's outstanding giants must not be disunited.*

_____: *It is important to focus on human capital development so that our country develops. Therefore, Malaysia's best people must be united.*

c. _____

Arguments should be precise and specific. Important details should be mentioned. Avoid over-general statements when presenting an argument.

Example:

_____ : *We should solve the arising problem. Solutions must be carried effectively to cater the problems of the country because we are running out of resources.*

_____ : *We should start training more doctors effectively in order to solve the problem of our country not having enough experts in the medical field because we are running out of scholarship funding in the ministry.*

d. _____

Arguments should be relating to the topic/issue discussed. It should not deviate or distract other people from addressing the relevant issue.

Example:

_____ : *Musmizah cannot be a good decision maker for society. This is because she cannot even choose a matching dress color with her scarf.*

_____ : *Musmizah cannot be a good decision maker for society. This is because she cannot see many perspectives of an issue.*

e. _____

Arguments should be fair, open-minded and impartial. They must be minimal biases.

Example:

_____ : *I believe he is capable of holding the position because he is a friend of mine. My friends are all capable of doing things perfectly.*

_____ : *Although he is a friend of mine, I believe that he is incapable of holding the position because he needs more training in the field of science.*

f. _____

Arguments should be consistent with each other. Arguments/beliefs should not be contradicting each other. There are two types:

_____ – saying/believing consistent matters (both must be true at a time)

_____ – behavior is consistent with speech

Examples:

_____ : *I believe in only one God, but I agree to the argument by the polytheist about why they are worshipping many gods.*

_____ : *I believe in only one God and I definitely disagree to the argument by the polytheist about why they are worshipping many gods.*

_____ : *Smoking is a bad habit that should be discarded. I smoke so I know.*

_____ : *Smoking is a bad habit that should be discarded. I have stopped smoking years ago, after realizing its danger.*

g. _____

Arguments should be based on reliable and timely sources. It should not be based on myth, unsupported assumptions or claims.

Example:

_____ : *According to a soothsayer, he said that whenever we sneeze, we are actually, emitting a poisonous entity that can be harmful to others.*

_____ : *According to a doctor, he said that whenever we sneeze, we are spreading viruses that can be harmful to others.*

h. _____

A conclusion in an argument should be supported by reasons that logically follows from them. Which is, to draw well-founded conclusions from well supported beliefs.

Example:

_____ : *All the ayahs from the Qur'an are words from Allah s.w.t. Al-fatihah has 7 ayahs found in the Qur'an. Therefore only the first ayah in Al-fatihah are words from Allah.*

_____ : *All the ayahs from the Qur'an are words from Allah s.w.t. Al-fatihah has 7 ayahs found in the Qur'an. Therefore Al-fatihah are words from Allah.*

4.2. Why are these standards important to be a good thinker?

- a. Making sure arguments are in-line with each other.
- b. Formulate arguments that consider many aspects of an issue.
- c. Making sure arguments are not taking any sides unjustly.
- d. Using reliable sources as premises to support our conclusion.
- e. Make arguments more clear and confident.
- f. Specify what is vague, over general and ambiguous when arguing.
- g. Making sure arguments are connected with the issue presented.
- h. Making sure the conclusion logically follows the premise.

EXERCISE

4. 3. Exercise: Detect which standard of CT that is lacking in the arguments below.

Think about the main thread in each argument.

- a. The state government of Hungary has announced the news to the citizens of Hungary that they are going to execute the plan of avoiding to increase the usage of electricity because they are running low and in need of resources.
- b. I'll be back to get you. Therefore, you should wait there.
- c. Junita wrote in an article, "Women are smarter than men in many ways because I am a well-educated woman who has excelled against my male-friends."
- d. The people are always complaining about what is wrong in our village. This is a very negative attitude as even animals have problems and they never complain!
- e. Jahil said, "People must be smart and be aware of who their leaders is so that they know who to report to when they have problems. Let's go report the problems of Penang people to Mohamed Mursi!
- f. There are too many people going to Midvalley since that place is boring and no one actually likes to go there.
- g. There is one thing that causes the divorce rates to increase and that is the disobedience of the wife to the husband.
- h. Man does really evolve from apes because Charles Darwin has observed a chain of creatures that are connected to the human species.
- i. If father chooses Ali to be the manager, it means father likes Ali. If he chooses Hikmah, it means father likes Hikmah. Father chose Hikmah, therefore father likes Ali.

4.4. Exercise: Rewrite the arguments in 4.3 by applying the standard that was lacking.

WEEK 5 & 6: DE BONO'S CORT & RYAN THINKER'S KEYS

This worksheet is typed based on De Bono (2006) & Ryan Thinker's Keys (1990).

What are my objectives for this chapter?

1. Know and apply a few techniques from CoRT1: PMI, CAF, C&S, APC & OPV.
2. Know and apply a few techniques from the Thinker's Keys: Reverse, What if, Disadvantages, Combination & B-A-R.

Let's achieve the objectives above!

De Bono's CoRT 1

5.1. What is PMI?

PMI stands for _____ (the good points), _____ (the bad points) and _____ (interesting points). It is a thinking tool where you direct your attention first:

- a. on the Plus points, then
- b. on the Minus points and then
- c. on the Interesting points.

It is done quickly within 2-4 minutes.

Exercise: Do a PMI on 'no more Duit Raya during Eid' and 'buying a mobile phone for a child'

5.2. What is CAF?

CAF stands for _____. It is thinking tool where you consider all the factors

for a situation. Factors are not evaluated.

Exercise: Do a CAF on 'performing congregational prayer' and 'buying a pet'

5.3. What is C&S?

C&S stands for _____. It instructs us to consider the consequences of a decision or an action. Setting time zones are according to suitability.

Exercise: Do a C&S on 'students can wear what they want in CFS' and 'Plagiarising an assignment for a subject'

5.4. What is APC?

APC stands for _____, _____ and _____. It means making effort to

generate alternatives about a matter.

Exercise: Do an APC on 'a young man wears 3 wrist watches' and 'a teenager who leaves the mosque quickly right after *salam* by the imam'

5.5. What is OPV?

OPV stands for _____. It means taking different people's perspective in a situation.

Exercise: Do an OPV on 'A teenager wants to quit high school' and 'Malaysia will be implementing hudud law'.

6.0. Thinker's Keys

6.1. What is the Reverse technique?

Use words such as _____, _____, and _____ in sentences which are usually displayed in a list. This technique forces students to take another perspective and think.

Exercise: Mention 10 places you cannot walk on / List 5 sounds you have never heard.

6.2. What is the 'What if' technique?

II. A person can _____ that intrigues him or her with this frame. You can organize the possibilities using concept mapping (mind-map).

Example: What if all cars are replaced with skateboards?

- Less pollution
- Car parks would be smaller
- Higher injury rate
- People would be fitter

Exercise: Explore the possibilities of "What if all cats can fly?" or "What if water does not satisfy thirst?" or "What if human sees with the nose, instead of eyes?"

6.3. What is the Disadvantages technique?

Identify an item and then list its _____. Then generate ways to correct or overcome those disadvantages.

Example: Electric Car

| The Disadvantages | The Improvements |
|----------------------------|---|
| Will stop if no power left | Build a dynamo system where it constantly charges when moving |

Exercise: Write the disadvantages of these items and the improvements: Electric fan, hat

6.4. What is the Combination technique?

List characteristics of two different items, then _____ into a single object.

Example:

| Projector | Boat |
|--|------------------------|
| Emit images, light and heat | Can float in the water |
| Made out of plastic and glass | Waterproof |
| Combine: A projector at the base of a boat that is waterproof and has the ability to emit images and light to help capture fishes. | |

Exercise: Do a combination technique for Book and Airplane

6.5. What is the B-A-R technique?

Technique to invent new things. Identify one item, then apply Bigger – Add – Replace to that item. Example: Do a B-A-R technique on a fork.

_____ : Make the handle rounder and slightly bigger

_____ : With the bigger handle, add a small compartment to hold sauce

_____ ” Replace the points with a heat detecting material that

changes colour so that it can detect the temperature of the food.

Exercise: Use B-A-R on a dustbin.

WEEK 7 & 8: ARGUMENTS

This worksheet is typed based on Bassham, Irwin, Nardone & Wallace (2011).

What are my objectives for this chapter?

1. Know what are argument, statement, premise, conclusion and types of conclusion
2. Detect non-arguments and modifying it into an argument
3. Learn how to write a decent argument

One part of being a good thinker is to be able to formulate and present convincing arguments.

Before we can do this, it is essential to know what an argument is and what does it consist of.

7.1. What is an argument?

Argument is simply a _____ that is justified by reasons. It is a group of statements (_____) that intend to support another statement (_____).

7.2. What are premise, conclusion and statement?

_____ are statements in an argument presented as a proof why we should accept another statement, which is the conclusion.

_____ is the statement in an argument that the premises intend to support.

Example: Since you are here in the class, that means you are present.

_____ is a sentence that can be evaluated as true or false.

Example: This is a red house. This house is mine.

7.3. What are types of non-statements? (Examples)

7.3.1. _____: Who are you?

7.3.2. _____: Hello my brother!

7.3.3. _____: Open the gates to the mosque!

7.3.4. _____: Please return the books at the counter.

7.3.5. _____: Let's go to the forum on Learning Arabic and English.

7.3.6. _____: Press the button to lock the door.

7.3.7. _____: Oh, my goodness!

EXERCISE

Exercise: (exercises taken from Bassham et al. 2011, pp. 32 & 33) The ones with “ * ” are originally constructed.

III. Label “S” if the sentence below is a statement and “NS” if they are not (indicate also which type of non-statement it is).

1. Capital punishment is wrong. (___)
2. *What do you say we stop at the nearby shopping mall? (___)
3. Marvelous! (___)
4. *I hope A'ishah likes her new job. (___)
5. *Please write your matric number clearly. (___)
6. What a crock! (___)
7. *I'll have naan bread and tandoori, please. (___)
8. My money is your money. (___)
9. Yikes! (___)
10. *Tik tok should be banned, period! (___)
11. *When do you want your dinner to be served? (___)
12. *When you have poured in the egg mixture, add a pinch of salt. (___)
13. *Salt is an ingredient that should be controlled when taken. (___)
14. *Finish the last question now! (___)
15. *This is not the last question as there are more below. (___)
16. *Let go to the mosque early, it is a good thing to do. (___)
17. *Tun Dr. Mahathir is the longest serving Prime Minister of Singapore. (___)
18. Up, sluggard, and waste not life; in the grave will be sleeping enough. (___)

7.4. How to identify premise and conclusion?

They can be identified by looking at certain words that act as premise or conclusion indicators.

*Example of **premise indicators**:* _____, _____, _____,
_____, _____ and _____.

*Example of **conclusion indicators**:* _____, _____, _____,
_____, _____, and _____

7.5. In the case of no indicator words, what are the tips to identify the conclusions?

7.5.1. Ask yourself, "What is the main issue?", see from the perspective of the author.

7.5.2. Look at the beginning and the end of passage. Usually the _____ is there.

7.5.3. Ask yourself, "What does the author want to prove?"

7.5.4. Put the word "therefore" in front of a statement, if it follows from
the previous statement, that might be the conclusion.

7.5.5. Put the word "because" in front of a statement, if it follows from the previous
statement, that might be the premise.

EXERCISE

Exercise: (exercises taken from Bassham et al. 2011, pp. 36 & 37) The ones with “ * ” are originally constructed.

IV. Identify the premises (P) and conclusions (C) in the following sentences.

1. (____)*Burhanuddin is a friend of mine because (____) he claimed it yesterday.
2. (____)*Aminah has been studying all night long. Consequently, (____) she has not taken her night rest yet.
3. (____)*Nuqman likes to eat durian so much that (____) he eats it even with rice!
4. (____)*Considering that Ghufuran helped the poor people in Kedah, (____) he is now staying there.
5. (____)*We do like the way our lecturers teach the subjects here. As a result, (____) we are happy when we are in class learning.
6. (____)*It can snow only in the 4-seasoned countries. Malaysia is not one of the 4-seasoned countries. This implies that (____)it can never snow in Malaysia.
7. (____)Since pain is a state of consciousness, a “mental event,” (____) it can never be directly observed. (*Peter Singer, “Animal Liberation”*)
8. (____)Business is the art of growth. Growth is the essence of life. And so our answer quickly follows. (____) Business is the art of life. (*Tom Morris, If Aristotle Ran General Motors*)
9. (____)Science is based on experiment, on a willingness to challenge old dogma, on an openness to see the universe as it really is. Accordingly, (____) science sometimes requires courage – at the very least the courage to question the conventional wisdom. (*Carl Sagan, Broca’s Brain: Reflections on the Romance of Science*)
10. (____) You know how I know animals have souls? Because (____) on average, the lowest animal is a lot nicer and kinder than most of the human beings that inhabit this Earth. (*newspaper call-in column*)
11. (____)There is nothing wrong with burning crude [oil] like crazy – oil isn’t helping anyone

when it sits in the ground - so long as (____) there's a plan for energy alternatives when the cheap oil runs out. (*Gregg Easterbrook, "Opportunity Costs"*)

12. (____) It's part of human nature to be angry at God when bad things happen, but what's the point? If we encourage each other to blame God for injustices, then (____) aren't we giving the dark side a victory by keeping God's precious children – that's all of us – away from His loving arms? (*letter to editor*)

7.6. What are the types of conclusions?

7.6.1. _____

A fact is a statement that _____. It is more empirical (measurable) in nature.

Example: Mount Everest which is 8,848 meters high is located in the Himalayas.

Supporting a factual statement

Building a premise for a factual statement requires _____, i.e. measured evidence. Supporting a fact with a reason will make it a non-argument.

Example 1 (concrete evidence): Mount Everest which is 8,848 meters high is located in the Himalayas as shown in the world map.

Example 2 (reason): Mount Everest which is 8,848 meters high is located in the Himalayas because we had a trip there to climb it.

7.6.2. _____

An opinion is a statement that _____. It is not empirical (non-measurable) in nature. It is either a strong or weak opinion.

Example: Johari thinks that Malaysians should climb Mount Everest.

Supporting an opinion

Building a premise for an opinion may consist of measured evidence or usually _____.

Example: Johari thinks that Malaysian should climb Mount Everest because there is a wonderful scene to be appreciated there.

EXERCISE

Exercise: Determine which statement below is a fact (F) and which is an opinion (O).

1. The photograph is taken by Mr. Ali. (___)
2. Mr. Salman has 5 sons and 3 daughters. (___)
3. Juniza's Proton Inspira is really beautiful. (___)
4. Dell computers are equipped with larger storage than Acers'. (___)
5. The tour group will depart to Langkawi at 10.00PM. (___)
6. I will finish my studies in pharmacology within 6 years. (___)
7. A motivational speaker, Mark Sammon has no hands and legs. (___)
8. Al-Ghazali wrote one of the greatest books, ihya 'ulumuddin. (___)
9. Ali added 3 apples in his bag, which already contained one. So, he has 4 apples. (___)
10. "All parties must remain calm and not react hastily towards the Molotov cocktail attack on a church in Penang", said Datuk Seri Najib Tun Razak. (The Star, 28 Jan 2014) (___)
11. SATURDAY, the first day of February, is Federal Territory Day. This is to commemorate the transfer of Kuala Lumpur from the Selangor state government to the federal government in 1974. (Goh Ban Lee, The Sun Daily, 27 Jan 2014) (___)
12. The government must come down hard on those who seek to destroy the nation by using race and religion. There's no place for extremism in our country. There's no such thing as "tolerance", it should be "acceptance". (Nadeswaran, The Sun Daily, 26 Jan 2014) (___)
13. I think that the government is willing to make it happen, but it is not easy because there are snipers and there are all sorts of problems. (Lakhdar Brahimi, International Mediator, Reuters) (___)
14. We have never missed it (reunion dinner) as my parents and grandparents had kept it a family tradition. (Angeline Wong, Daily Express, 30, Jan 2014) (___)

Exercise A: Select one fact and one opinion and build a premise for that conclusion to make it a complete argument.

Exercise B: Answer the following questions based on the statement given.

a) Statement: 'Covid-19 is one of the global pandemic.'

- i. State whether the above statement is a factual conclusion or an opinionated conclusion. Explain your answer based on the context of the statement given.

- ii. Regard the given statement as a conclusion. Construct a premise and make it a complete argument.

- iii. Regard the given statement as a premise. Construct a conclusion and make it a complete argument.

b) Statement: 'Online learning helps to improve student's participation.'

- i. State whether the above statement is a factual conclusion or an opinionated conclusion. Explain your answer based on the context of the statement given.

- ii. Regard the given statement as a conclusion. Construct a premise and make it a complete argument.

- iii. Regard the given statement as a premise. Construct a conclusion and make it a complete argument.

8.0. What is NOT an argument?

a. _____

It is intended to provide examples of a claim, not to prove the claim.

Example: Chocolates are delicious. For example, Cadbury and Daim are delicious when eaten with milk.

b. _____

Statements about what a speaker/writer happens to believe. It does not support or being supported by other claims.

Example: I believe that it is not dying that people are afraid of. Something else, something more unsettling and more tragic than dying frightens us...

c. _____

It is simply to convey information about an issue or a subject.

Example: KUALA LUMPUR: A school dropout from Malacca who made remarks insulting Islam on Facebook was arrested by police on Thursday.

d. _____

A statement that intends to show why something is the case, not to prove that is the case.

Example: Humairah is absent because she is sick. Ali fell because he slipped.

e. _____

It is basically an if-then statement. It is made of antecedent and consequent.

Example: If it rains, the assembly will be done in the hall. Should we run out of water, we will be thirsty.

EXERCISE

Exercise: Determine which one is an argument (A) and non-arguments (NA-specify which type)

1. Men cannot dress as women even in acting. It degrades their own and other men's dignity. (_____)
2. When CFS students agree to wear all black, it will make the class gloomy.
(_____)
3. There are more than 4000 students combined from 4 schools in Puchong. 500 of them are from east of Malaysia. (_____)
4. The house collapsed due to the fact that the termites have been eating up the supporting pillars. (_____)
5. Bella is a tall person. She is a person who is diligent in her work. In addition to that, she is a clever person! (_____)
6. Bk1, Bibas Spike and Bibas Air are among the shoes made by Abibas which are reliable. This tells that Abibas produces reliable shoes. (_____)
7. Four divided by two equals two. Say, you put out four fingers and divided them into two equal parts, each part will have two fingers. (_____)
8. Jamil is a poor person, he always spends his money carelessly. (_____)
9. Should the children leave the house, the caretaker will decrease their allowances. (_____)
10. It is important to remind each other about Islam, even to Muslims. We often forget about our roles in this world and reminding each other will set us back on track.
(_____)
11. The government should not organize K-pop concerts anymore. Those concerts are eating away the government's money. (_____)
12. The paedophile who was caught should stay in prison for as long as possible. If he is released, other boys would be his next victim. (_____)

Exercise: Select one of the non-arguments and modify it so that it has a proper premise.

8.1. What are the criteria of writing a good argument?

8.1.1. A clear claim/ stand with a relevant general premise (1 mark)

Arguments should have a claim that conveys clearly our stand.

Example: I agree that a subject on mental health should be introduced in schools because instilling awareness at a younger age will create a strong foundation in people's life.

8.1.2. Specific premise(s) to support the general premise (2 marks)

A general premise needs to be supported to make our argument more convincing.

Specific premises can be: **statistics, logical reasoning, expert's opinion, facts, personal observations, official announcements, research conducted.**

V. Examples:

Example (fact): I agree that a subject on mental health should be introduced in schools because instilling awareness at a younger age will create a strong foundation in people's life. According to the American Psychiatric Association, the best time to instil strong education and awareness of an issue among people is when they are young.

Example (statistics): I agree that a subject on mental health should be introduced in schools as it has been reported in Local Newspaper that 35% of students from all around this country suffered from mental health issues which is quite alarming.

Example (logical reasoning): I agree that a subject on mental health should be introduced in schools because instilling awareness at a younger age will create a strong foundation in people's life. The earlier a knowledge is introduced to an individual, the faster and better the comprehension takes place.

8.1.3. Consider Opposing Idea (3 marks)

A good argument considers opposing ideas within the same context from other people. This is to make sure that the standard of completeness is adhered to.

Example: I agree that a subject on mental health should be introduced in schools because instilling awareness at a younger age will create a strong foundation in people's life. According to the American Psychiatric Association, the best time to instil strong education and awareness of an issue among people is when they are young. However, some oppose that because information that is taught at a younger age is easier to be forgotten.

Sometimes, we tend to consider opposing ideas **NOT** within the same context of our argument. It should be relevant to the initial discussion or issue.

Example of an opposing idea that is irrelevant:

However, some oppose that because introducing a new subject to children will cause them more burden.

8.1.4. Specific premise(s) to support opposing idea (4 marks)

The opposing idea should be supported to make the opponent's argument more convincing. Specific premises can be: **statistics, logical reasoning, expert's opinion, facts, personal observations, official announcements, research conducted.**

Example: I agree that a subject on mental health should be introduced in schools because instilling awareness at a younger age will create a strong foundation in people's life. According to the American Psychiatric Association, the best time to instil strong education and awareness of an issue among people is when they are young.

However, some oppose that because information that is taught at a younger age is easier to be forgotten. According to American Psychologist Association, kids are joyful and playful most of the time and to instil awareness inside their mind while they are still young is an unsuitable idea as they will forget them easily.

8.1.5 Rebuttal of the opposing idea with a general premise (5 marks)

A good rebuttal is necessary to prove that the opposing idea is erroneous or false.

Example: I agree that a subject on mental health should be introduced in schools because instilling awareness at a younger age will create a strong foundation in people's life. According to the American Psychiatric Association, the best time to instil strong education and awareness of an issue among people is when they are young. However, some oppose that because information that is taught at a younger age is easier to be forgotten. According to American Psychologist Association, kids are joyful and playful most of the time and to instil awareness inside their mind while they are still young is an unsuitable idea as they will forget them easily. But I oppose this belief because they might forget about the thing they were taught but some values and awareness will still remain in their mind.

8.1.6. Specific premise(s) to support the rebuttal (6 marks)

The rebuttal needs to be supported to make our argument more convincing.

Specific premises can be: **statistics, logical reasoning, expert's opinion, facts, personal observations, official announcements, research conducted.**

Example: I agree that a subject on mental health should be introduced in schools because instilling awareness at a younger age will create a strong foundation in people's life. According to the American Psychiatric Association, the best time to instil strong education and awareness of an issue among people is when they are young. However, some oppose that because information that is taught at a younger age is easier to be forgotten. According to American Psychologist Association, kids are joyful and playful most of the time and to instil awareness inside their mind while they are still young is an unsuitable idea as they will forget them easily. But I oppose this belief because they might forget about the thing they were taught but some values and awareness will still remain in their mind. This is because, according to a research by Alabama Institute of Psychology, 8 out of 10 teenagers claimed that, though

they don't remember in detail what they learned when they were young, but they still can remember the core value of it.

EXERCISE

Exercise: Do you agree with the following statements? Construct arguments to agree/disagree.

- a. The dress code policy in CFS should be banned.

- b. Death penalty should be imposed to rapists.

- c. Censorship of the internet to students is necessary.

WEEK 9 & 10: BARRIERS TO THINKING

This worksheet is typed based on Bassham, Irwin, Nardone & Wallace (2011).

What are my objectives for this chapter?

1. Understand the 8 barriers to thinking why we are learning it
2. Detect and overcome each barrier to thinking

Let's achieve the objectives above!

9. What is the barrier to thinking?

A barrier hinders one from thinking well. In order to think critically, we need to recognize and minimize these barriers.

9.1. Why do we need to learn about the barriers to thinking?

In training to become a medical doctor, they learn not just the medicine, but the diseases as well. Similar to training a good thinker, we need to learn not just the things that make a good thinker (standards), but also the diseases of thinking that prevents it as well.

9.2. What are the 8 barriers to thinking?

9.2.1. _____

It is the tendency to see reality as centered on oneself. Thinking that one's own opinions, beliefs, interests are superior to everyone else's.

i. _____

It is the tendency to accept and defend beliefs that harmonize with one's self-interest.

Example:

Yusnaldi (A fisherman): I think that the state should spend their money for buying more high-powered boats so that it can get more fishes in the sea.

ii. _____

It is the tendency to overrate oneself – to see oneself better in some respect than one actually is.

Example:

Muneq: I know the best way to cut a fish neatly. I have had years of experience doing this. So I know everything about it.

9.2.2. _____

It is the tendency to see reality as centred to one's own group, by focusing excessively on the group. Two forms:

i. _____

It is the tendency to view one's own group as being inherently better than others.

Example:

Karate practitioners are always better and stronger than other martial art practitioners.

ii. _____

It is the tendency to follow the crowd or to conform to authority or to group standards of conduct or belief, blindly.

Example:

Since all of us are getting a car, I should also get one too although I might not need it.

9.2.3. _____

Forming the opinion of an individual based on the group they belong to. It is assuming that all the members of that group are alike.

Example:

All international students are problematic. I am now working for a project with an international student. Therefore, he is problematic.

9.2.4. _____

It is the act of believing something to be true, because one wishes it to be true, not because one has the evidence for it.

Example:

Khalilah aims to get four flat this semester. She worked hard and ended up with getting a close 3.8 CGPA. She still thinks that she got four flat despite what the results showed.

9.2.5. _____

It is the act of moving blame and responsibility away from oneself.

Putting the responsibility or blame on other people or things.

Example:

Lihana: The crime rate in our neighborhood is rising because the guards are sleeping all day! If they do their jobs, we can even feel without locking our doors.

9.2.6. _____

The tendency to reject new ideas and new ways of seeing and doing things without examining them fairly. A belief that the old ways are always the best.

Example:

Gong Yi: The best method to cook tastier fried chicken is by using cooking oil and cooking using an air fryer will reduce its taste.

9.2.7. _____

The tendency to defend our faults or weaknesses by rationalizing our action.

Example:

I scored poorly in the exam because I have difficulties to focus on my studies as I need to work part time to cover my family expenses due to the COVID-19 Pandemic.

9.2.8. _____

Doing or saying something (or vice versa) in order to avoid embarrassment that threatens one's self-image or peoples' perceptions towards them. It can also be used to save other peoples' image.

Example:

Rizwan replied to his friend after being asked about his house that he put up for sale: "Oh I was going to move in that house anyway" after he failed to sell the house.

How to detect and overcome each barrier to critical thinking?

When we know what the barriers are, it will be detectable. To overcome it is to understand why it is a barrier to thinking and use standards of CT to overcome it.

EXERCISE

Exercise 1: Explain the barrier of CT that has affected these people.

1. Lee Hyun Bee, a Korean celebrity, believes that Malaysia should accept the migrants or else more migrants would come to his country instead

Explain how the above is an example of self-interested thinking.

2. A group of illegal migrants is planning to protest in front of the immigration detention centre and Karamuthu thinks it is best for him to join as well.

Explain how the above is an example of conformism.

3. Though America is still struggling to fight Covid-19, I will still migrate there as I will never get infected.

Explain how the above is an example of wishful thinking.

4. It is difficult for our graduates to find a job nowadays because of these illegal migrants.

Explain how the above is an example of scapegoating.

5. My tweet on #blacklivesmatters has gone viral. Due to that, everyone in our school knows about the issue.

Explain how the above is an example of self-serving bias.

6. Alex believes that the Asians should get the vaccine first because Asians make the largest continent in the world.

Explain how the above is an example of group bias.

7. Zamani refuses to move his *Yong Tau Foo stall* to the food court provided by the government as it will take a lot of effort to relocate though he acknowledges that his current stall is not adhering to the standard determined by the government.

Explain how the above is an example of resistance to change.

8. Mikail said that he doesn't know who is responsible for spreading the false information though he was aware that his desk mate was the first person to send the text message.

Explain how the above is an example of face saving.

9. I was informed that a migrant from Wakanda was caught stealing yesterday. Now I am scared of meeting anyone from that country.

Explain how the above is an example of stereotype.

10. Sandy: I don't blame people who shoplift when they are facing financial problems. After all, they are in need of money.

Explain how the above is an example of rationalization.

Exercise 2: Identify the barrier of CT that has affected these people and explain how it is a barrier?

a. Sharon: I have had patients who ask me for money for their own medical bills since I am a doctor and they see me as having more money. The hospital authorities should increase the bonus given to doctors rather than making the medical fee cheaper.

b. Same'on: Many people are posting this picture as their profile picture. Since it does not look too ugly and everyone is doing it, I am going to set it as my profile picture too!

c. Zabadah: *The guard will not scold us for coming back late to the campus. I really want them to be nice today, that's why they are going to welcome us with a smile.*

d. Onichiwa: *I am a genius! How can they say that I am stupid? I have invented many tools for the kampong people to use such as the chair, table and spoon. They should ask advice on inventions from me, the guru of creative thinking.*

e. Lee Meen Hee: *We the Red Crescent Society are way more active than the Boy Scouts' group. Our members all consist of hardworking people, so generally we are better. So join our society and learn a lot from us!*

f. Mutusamy Mariappa: *I shall tell nobody that I was the one who broke the company's machine. After all, I'm the manager of the company. Such incidents will ruin my reputation.*

g. Hyun Naa: Semsong Mobile has created many state-of-the-art gadgets for the people to use and this has caused the crime rate to increase such as theft. This is why Semsong Mobile should take action about this issue.

h. Chong Hen Sem: Hey look at John there, he is walking beside Barbara. It is common for the people from the West to have sexual relationships outside of wedlock. So I guess they must have done it already. It's so not the culture here in Malaysia!

i. Zaim: I am innocent! I admit that I was a bit drunk, but the problem is with the junction itself. It is placed at the wrong place! That is why the accident happened.

j. Tuan Jamil: I don't think we need to make any changes to the syllabus that we have. We have been using it since the 80's and we managed to produce excellent graduates. The process will also take a lifetime. Just stick to what we have.

WEEK 11: FALLACIES OF RELEVANCE

This worksheet is typed based on Bassham, Irwin, Nardone & Wallace (2011).

What are my objectives for this chapter?

1. Understand what is Logical Fallacies and one of the major type - FoR
2. Identify the types of FoR and reconstruct them to a fallacy-free argument.

Let's achieve the objectives above!

1. What is a Fallacy? What is Fallacy of Relevance?

A fallacy is an argument that contains mistakes in reasoning. There are two (2) types of fallacy, one of them is Fallacies of Relevance. Fallacies of Relevance are mistakes in reasoning that happens because the premises are logically irrelevant to the conclusion.

2. What are the 5 Fallacies of Relevance?

a. _____

It happens when an arguer attempts to justify a wrongful act by claiming that some other act is just as bad or worse.

Example: Yes, I did lie to my brother about taking his money. But all my siblings lied to me before. So, what I did was actually acceptable.

Reconstruct:

b. _____ (Ad Hominem)

It happens when an arguer rejects a person's argument by attacking the person's personality/character rather than the person's argument.

Example: Mariam argued that politics should be discussed openly in classes. But Mariam is a playful and immature person. Therefore, I reject her argument.

Reconstruct:

c. _____

It happens when an arguer rejects another person's argument because that person fails to do what he/she argued.

Example: Fairul argued that people should not smoke as it will cause many illnesses. However, he does not adhere to his own argument because I saw him smoking yesterday. Then why should I accept his argument?

Reconstruct:

d. _____

It happens when an arguer states as a premise the very thing he is seeking to prove as a conclusion.

Example: Jungle trekking is dangerous because it is not really safe to do it.

Reconstruct:

e. _____

It happens when an arguer side-tracks the audience by raising an irrelevant issue, then claims that the main issue has been settled by the irrelevant one.

Example: Lukman argued that Mercedes cars are sturdier than Perodua cars. I disagree, Mercedes cars look out-dated whereas Perodua look more stylish. So, Lukman's argument is unacceptable.

Reconstruct:

WEEK 12: FALLACIES OF INSUFFICIENT EVIDENCE

This worksheet is typed based on Bassham, Irwin, Nardone & Wallace (2011).

II. What are my objectives for this chapter?

1. Understand what is Logical Fallacies and one of the major type - FoIE
2. Identify the types of FoIE and reconstruct them to a fallacy-free argument.

Let's achieve the objectives above!

1. What is the Fallacy of Insufficient Evidence?

Fallacy of Insufficient Evidence is mistakes in reasoning that happen which the premises, though relevant to the conclusion, fail to provide sufficient evidence to support the conclusion.

2. What are the 5 Fallacies of Insufficient Evidence?

a. _____

It happens when an arguer claims that something is true because no one has proven it false or vice versa.

Example: Muhaiminah argued that Ali is a wonderful person to talk to because no one said that he is boring.

Reconstruct:

b. _____

It happens when an arguer cites an authority that is untrustworthy.

Example: Rahimah argued that, according to her kindergarten friend, the earth is going to end in December, 2019.

Reconstruct:

c. _____

It happens when an arguer compares things that are not really comparable.

Example: Nobody would buy a shirt without first trying it on. Why then would you have to be married first before trying to live together in a house?

Reconstruct:

d. _____

It happens when an arguer claims that one thing is the cause of something else, without sufficient evidence

Example: A week after I drank the water from the hidden fountain, my body feels lighter and I have lost 2kg! Hence, the water has caused me to lose weight.

Reconstruct:

e. _____

It happens when an arguer poses a false either/or choice.

Example: Either we select Waheeda to be our leader or we can watch our organization falls. Surely we do not want to see our organization fall, therefore, we should select Waheeda.

Reconstruct:

EXERCISE

Exercise: (Fallacies of Relevance & Fallacies of Insufficient Evidence)

- i. What is the fallacy present in the above statement?*
- ii. How is it a fallacy to that person's thinking?*
- iii. Reconstruct the above argument so that it is free from any fallacies.*

Answer the following statements based on the above questions.

- a. I disagree with Azlina's tweets on migrants. She cannot even write in proper English.

i. _____

ii. _____

iii. _____

- b. Ashraf: Guys, I am raising a fund for refugees in our country because they are short of food and water.

Bakri: The government has already provided them shelters. Don't waste your money!

i. _____

ii. _____

iii. _____

c. Since I have never heard of people migrating from rich countries, all migrants are poor.

i. _____

ii. _____

iii. _____

d. I have watched so many videos on YouTube on illegal migrants and trust me they will conquer our country!

i. _____

ii. _____

iii. _____

e. We have to reject migrants entering our country or we will lose all our jobs.

i. _____

ii. _____

iii. _____

f. Sending back the migrants is like putting a bird's egg back into the nest, where it belongs!

i. _____

ii. _____

iii. _____

g. It is not a problem when migrants fail to respect our culture, it is worse to see the locals who are not respecting their very own culture!

i. _____

ii. _____

iii. _____

h. It's ironic that he is opposing discrimination against migrant workers, when I just saw him cursing at a migrant worker yesterday!

i. _____

ii. _____

iii. _____

- i. The reason why our country is not listed as one of the top ten cleanest countries is due to the presence of too many migrants in this country.

i. _____

ii. _____

iii. _____

- j. It is not right to turn down the Rohingyas request for help because it is wrong.

i. _____

ii. _____

iii. _____

In a nutshell, learning fallacies can assist us in building strong arguments and it can also avoid us from using fallacies. To be a critical and creative thinker, we must know and abide by the standards of critical thinking and things that hinder us from providing good judgment. Thus, it is important for all of us to have knowledge on fallacies in order to be a good thinker.

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