Differing Opinions and Logical Conclusions - Workbook

Compare and Contrast

Exercise 1

Exercise Objective: Compare and contrast from video content

: Learn to compare and contrast data observed

Link for the Video

<http://www.ted.com/talks/sheena_iyengar_on_the_art_of_choosing?language=en>

"My failure to procure myself a cup of sweet, green tea was not due to a simple misunderstanding. This was due to a fundamental difference in our ideas about choice."

# Watch the video of Sheena Iyengar on the topic "Choice". Observe the pattern of comparison and contrasting. Note the key words used and then write a compare and contrast paragraph

Paragraph pointers:

Signal words and phrases that show contrasts (Use these words in your paragraph to contrast)

* however
* on the other hand
* but
* nevertheless
* while
* rather
* on the contrary
* yet
* more (than)
* Comparative forms (er)
* in contrast

Focus on the three assumptions that Sheena Iyengar discussed. Look at the Asian view and the American view.

The First assumption: if a choice affects you, then you should be the one to make it. This is the only way to ensure that your preferences and interests will be most fully accounted for.

The Second assumption - The more choices you have, the more likely you are to make the best choice.

The Third assumption "You must never say no to choice."

Logical Conclusions

Exercise 2

Exercise Video Link: [**https://www.ted.com/talks/arthur\_benjamin\_s\_formula\_for\_changing\_math\_education?language=en**](https://www.ted.com/talks/arthur_benjamin_s_formula_for_changing_math_education?language=en)

Watch the video of Arthur Benjamin on “Teach statistics before calculus!” and observe how he develops his argument. Capture his argument in the following format.

The Format for Writing your argument and conclusion

1. What was the conclusion that he stated at the beginning of his speech.

2. State the reasons he gives.

3. Write the argument he puts forth.

4. List any qualifiers that he uses.

5. Give two counterarguments that weaken his conclusion.

6. List any assumptions that he has made.

7. Are his reasons and counterarguments directly related to his conclusion? Give reasons

8. What is the overall strength of his argument: weak, moderate, strong, or very strong?

**Exercise 3** --Draw logical conclusions based on case study given  
Objective: Learn to draw logical conclusions

Instructions to trainees

Read the case and write your conclusions. You are expected to write your argument and conclusion

Case Study 1: Talk show hosts often warn their audiences to leave any relationship at the first sign of abusiveness in a spouse or partner because abusive partners do not change. What is your conclusion after you have gathered solid evidence on this topic?

Or

Case Study 2

Does violence on television really have a negative influence on children's behavior? Many parent and teacher organizations want to limit children's access to violent programs on television. What is your conclusion after you have gathered solid evidence on this topic?

The Format for Writing your argument and conclusion

1. Begin by stating your conclusion.

2. State your reasons.

3. Write your Argument.

4. List any qualifiers.

5. Give two counterarguments that weaken your conclusion.

6. List any assumptions.

7. Are your reasons and counterarguments directly related to your conclusion?

8. What is the overall strength of your argument: weak, moderate, strong, or very strong?

Checklist for Developing Your Argument. Pointers from Arthur Benjamin's video

1. Begin by writing a clearly stated conclusion.

Arthur Benjamin Starts by stating his conclusion

The mathematics curriculum that we have is based on a foundation of arithmetic and algebra. And everything we learn after that is building up towards one subject. And at top of that pyramid, it's calculus. And I'm here to say that I think that that is the wrong summit of the pyramid ... that the correct summit -- that all of our students, every high school graduate should know -- should be statistics: probability and statistics.

2. List the reasons that support your conclusion (e.g., cite research on the effect of various gun control laws). Rate each reason according to how well it supports the conclusion.

Next he states his reasons.

very few people actually use calculus in a conscious, meaningful way,

if all of the American citizens knew about probability and statistics, we wouldn't be in the economic mess that we're in today.

3. List counterarguments and rate each one according to how much it weakens the conclusion. Identify any qualifiers. (For instance, few people would support the sale of guns to known felons, the mentally ill, or young children. On the other hand, few people would deny guns to the police or to the military.)

After that he puts forth his Argument on why there should be a change

The world has changed from analog to digital. And it's time for our mathematics curriculum to change from analog to digital, from the more classical, continuous mathematics, to the more modern, discrete mathematics -- the mathematics of uncertainty, of randomness, of data -- that being probability and statistics.

4.List any assumptions you make in planning your argument.

On the other hand, statistics -- that's a subject that you could, and should, use on daily basis. Right? It's risk. It's reward. It's randomness. It's understanding data.

5. He gives two counterarguments that weaken his conclusion.

Calculus is an important subject. It's one of the great products of the human mind.

Every student who studies math, science, engineering, economics, they should definitely learn calculus by the end of their freshman year of college.

6.Check that your reasons and counterarguments relate directly to the conclusion. Is your argument sound? Does it provide strong support for the conclusion?

This is how Arthur Benjamin supports his point strongly

In summary, instead of our students learning about the techniques of calculus, I think it would be far more significant if all of them knew what two standard deviations from the mean means. And I mean it.

If you observe the speech was delivered using simple language and appropriate grammar.