LOZO

SHANGHAI SCIENCE DEBATE
COMPETITION 上海市高中生科普英语辩论赛

SSDC

Lesson Objectives

In this lesson, you will learn:
- How to create **CREI arguments** (claim, reasoning, evidence, impact).
- How to find good evidence for your arguments.
- How to present your case.

Introduction

Let's say that we have the following topic:

''We should ban clowns from performing in front of children.''

What is the best way to construct a convincing argument for the PRO side?

Introduction

We might have a bunch of ideas, like that "clowns look creepy" or "I don't like how they move and act" or "they might perform pranks."

To make a great argument though, we should add a clear harm or benefit in our claim so we can prove an impactful argument in debates.

We want to choose one idea and put it in a sentence with one harm.

CREI: Claim

We now have one sentence, like "Clowns scare kids." This is called our claim, and it is the start of our argument.

Now we need to figure out reasons that explain why your claim is true. Can you think of at least two ways that clowns might scare kids?
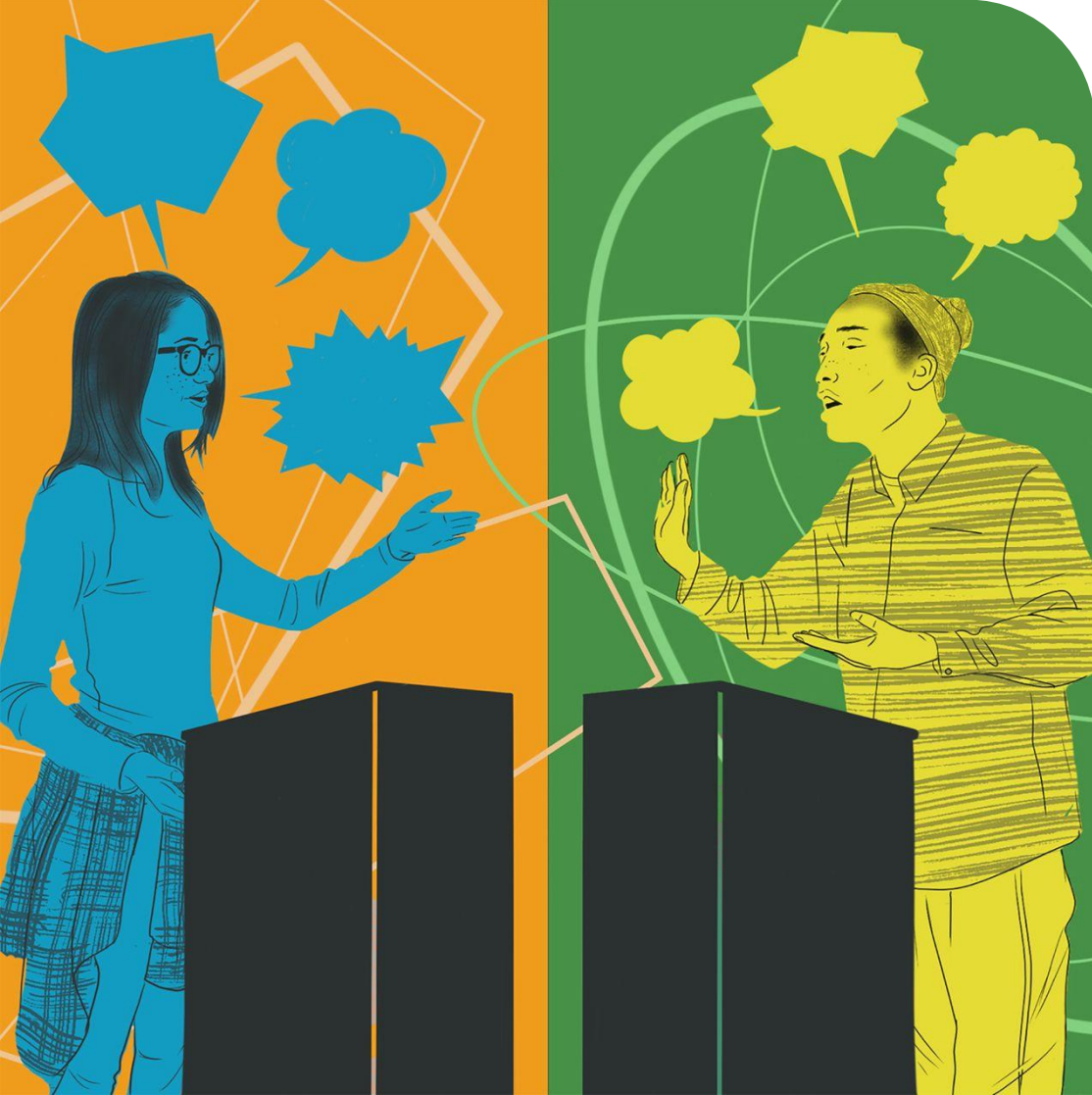
CREI: Reason

Great ideas! Now, you want to try to put each separate idea into a new bullet point. In debate, we call those layers of reasoning, so you create them to explain why your claim is true.
For example:

" My first argument is that clowns may scare kids:

- The first reason is that clowns look very unfamiliar than other adults, and kids are usually afraid of strangers and things that don't know about.

- The second reason is that clowns play tricks, which could upset small kids who don't expect them."

CREI: Evidence

But it's a little hard to understand that last layer. What kind of tricks or pranks do we mean?

You need evidence to make this clear. You can say "According to an article published by..." or "Prof. Smith stated that..." and cite a relevant and credible source that helps you prove your idea.

CREI: Evidence

''The **second reason** is that clowns play **tricks**, which could upset small kids who don't expect them.

According to a Harvard University article published by Prof. Smith in 2025: spraying water from fake flowers onto kids can cause psychological traumas. ''

CREI: Impact

But so what? If a kid gets a bit wet, or cries for a few minutes, it's not a big deal, right?
So, finally we need our impact, or the harm or benefit to show why this matters.

Why does being upset by a clown create a harm for a kid?

CREI: Impact

"This looks like clowns spraying water from fake flowers onto small kids, who start crying because they were caught by surprise.

The impact is that the kid may feel less confident making friends in the future, because they're afraid other people will trick or hurt them.

Another impact is that older kids may mock them for their reaction to the clown, making them feel

CREI: Argument

So, to put that all together, each argument has a Claim or title, layers of Reasoning, an Evidence, and Impact. We call this CREI.

Claim: My first argument is that clowns may upset or terrify kids.

Reasoning: My first reason is that clowns look like strangers...

Evidence: According to research published by...

Impact: The harm is kids losing confidence...

CREI: Argument

So, to put that all together, each argument has a Claim or title, layers of Reasoning, an Evidence, and Impact. We call this CREI.

Claim: What is the argument that I am making?

Reasoning: Why is my argument true?

Evidence: Additional back up of my reasoning.

Impact: Why is this argument important?

CREI: Argument

PRO Tip:
You can add multiple pieces of evidence.

Claim: What is the argument that I am making?

Reasoning: Why is my argument true?

Evidence 1: Additional back up reasoning.

Impact: Why is this argument important?

Evidence 2: Additional back up impacts.

Evidence vs. Examples

Evidence:

- Academic research, official studies or expert opinions.
- Provided by reputable organizations or individuals.
- The source has a reputation that ensures it is trustworthy.
- Accurate data or direct quotes from expert.
- **Can help you win debates.**

Examples:

- Personal experiences, hypothetical scenarios, general knowledge.
- Often inspired by real-life facts but not published by credible sources.
- Initial source is tricky to be tracked or verified.
- May lack accuracy, hence could be altered.
- **Can help us illustrate reasoning but cannot make us win debates.**

Important Notes on Evidence

01 Evidence can be **facts, statistics, expert quotes, lines from scientific papers**.

02 Evidence should **come after reasoning** and before examples.

03 You **can have more than one** piece of evidence to support one argument. Top debaters sometimes have 3 or even 4!

04 Evidence can be used in **both reasoning** and **impact** parts.

How provide evidence citations?

1. Author's name or the name of the organization, and their credentials.
   - *"According to…"*
2. Title of the article/research and source where it was published.
   - *"Published in…"*
3. The date of publishing.
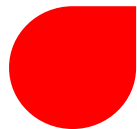   - *"In *year and sometimes month*…"*
4. Quote

Criteria of Strong Evidence

Credibility

Evidence should come from a serious source:
- Scientific papers.
- Expert reports.
- Reputable media.

Evidence cannot be:
- Wikipedia.
- Google, Bing, Baidu or other search engines.
- Anonymous articles published by random websites.
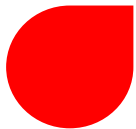- Social media.
- ChatGPT or DeepSeek!

Criteria of Strong Evidence

Relevance

Evidence should directly support and prove your claim and reasoning.
E.g.: an argument "Exams should be abolished because they don't represent students' learning abilities" cannot be supported by the fact on how many students in Finland successfully pass their annual exams.

If it's too general or specific to support the claim directly, you should find another evidence.

Criteria of Strong Evidence

Recency

Evidence should be as fresh as possible. Generally speaking, it shouldn't be more than 5 years old.

For topics that innovate rapidly (e.g. AI, technology), the evidence should ideally be no more than a few months old.

Anecdotal vs. Empirical Evidence

Anecdotal Evidence:

- Collected through **conversations** or **personal experiences** (e.g., interviews).
- Has a strong **emotional appeal**, making the argument relatable.
- Effective for making **connections** or **illustrating** a specific example, but **cannot** prove claims.
- *Limitations: Often one-sided and incomplete; lacks broader credibility.*

Empirical Evidence:

- Derived from **systematic observations, research,** or **experiments**
- Credible and reliable (e.g., statistical data from studies).
- Effective *for **proving** or **disproving** claims and establishing the scale of impacts.*
- *Limitations: May feel abstract or unrelatable to audiences.*

How to put all of your ideas together when building a constructive speech?

01 **Introduction** – make a short and clear statement that shows what you are trying to prove in your speech.

02 **Definitions** – they are simply **the key terms you think should be clarified** to have an educational debate.

03 **2-3 Contentions (arguments).** You can organize a contention in a few ways, but the most common way is around the **claim, reasoning, evidence, impact.**

04 **Subpoints are basically mini-contentions and follow the same guidelines as main contentions.** They are used when your contention has multiple different ideas that need to be explained.

Delivering Arguments

01 Change **volume** throughout the speech. Speaking loudly all the time isn't a good strategy, it also makes your speech monotonous.

02 Maintain a good **pace.** Sometimes you can speed up, but don't rush: judges must hear your arguments.

03 Use rising and falling **intonation** to emphasise key points. *'Junk food is the major cause of obesity'* should become *'Junk food is THE MAJOR cause of…'*

04 Master **pauses** to create a dramatic effect. For example, speed up a little to build up tension – and then! Pause… before saying your most. Important. Conclusion.

INSPIRE ➤ EMPOWER ⚡ THE ➤ FUTURE

Activity: Create a CREI Argument

- **The topic is: "We should ban people from using cars"**

- **First, brainstorm some ideas. Then, pick one sentence and make that your title or claim.**

- **Add layers of reasoning why it's true!**

Add a piece of evidence to back it up!

- **Finally, wrap up with the impact: benefit or harm.**

Create Arguments

Tournament motion: **Governments should prioritize** biotechnological solutions over carbon capture technologies in achieving carbon neutrality.

Create Arguments

Tournament motion 2: **Developing countries** should **prioritize investing** in AI healthcare **over** training new doctors.