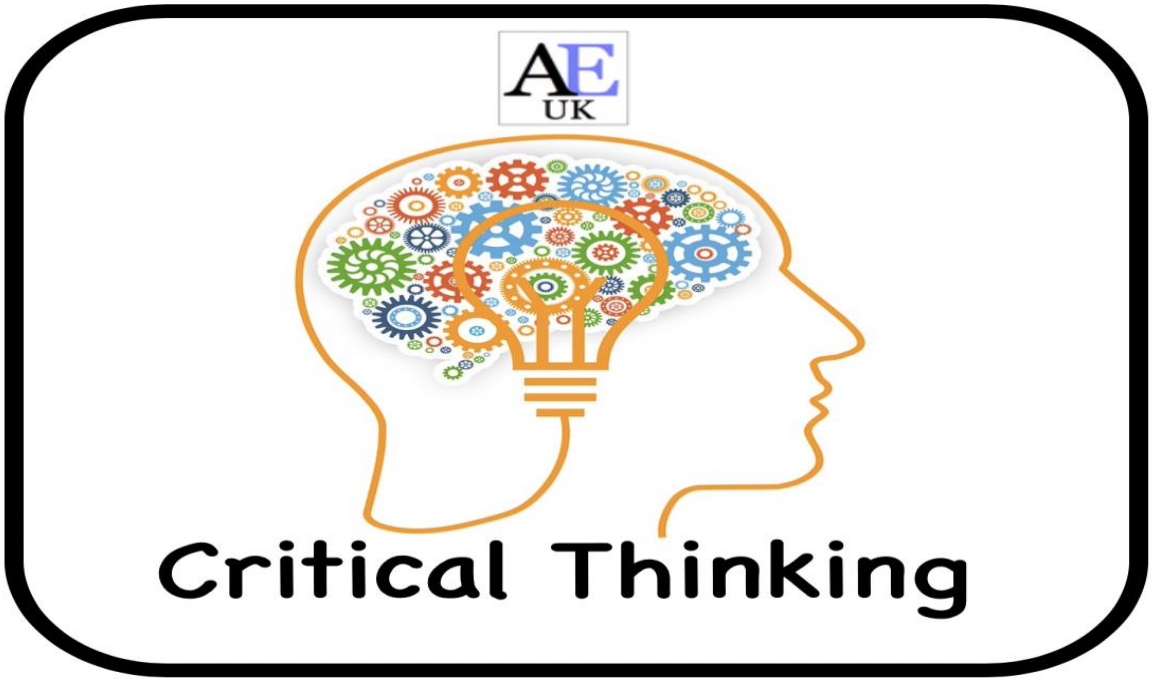
Critical Thinking



Reading Text Analysis 5

Data Centres

EXAMPLE

Critical Thinking: Reading Text Analysis 5

EXAMPLE

Lesson Plan

Aim: to provide quality practice in developing analytical critical reading skills.

1. Preparation

- Reading text 'Data Centres' for each student. Page 3
- Answer sheet (one sheet between two). Page 4-5

2. Introduction

- Ask students to discuss: 'What is critical reading?'
- Try to elicit key terms and ideas: *questioning / critique / analysis / evaluation / validity / evidence / bias / opinion / stance / credibility / reliability / synthesis*

- *EXTRA IDEAS! Go here: Critical thinking Dictogloss / Critical thinking videos / Bloom's Higher-level thinking skills* https://www.academic-englishuk.com/critical-thinking

3. Set up

- Hand out the reading text 'Data Centres'.
- Explain that you want the students to apply the critical thinking skills of analysing and evaluating to the text.
- Give examples of the two terms:
  Analysis is to draw connections among ideas: to examine / to question / to compare.
  Evaluation is to justify a stand or decision: to judge / to identify support and credibility / to appraise / to critique.

4. The lesson

- As a whole group do the first paragraph together. Explain there are three possible problems (there are actually eight areas that can be questioned but three is good).
- Give the students 5-10 minutes to read the paragraph and try to identify what in the paragraph can be questioned or critiqued.
- Students can conduct internet research to check information.
- Feedback individually or as a group using the answer sheet for guidance.

- Students work individually: Allow the students 20-30 minutes to read and highlight possible areas of question, critique or appraisal. Explain there are ten possible problems to find.

5. Feedback:

- Feedback in pairs - students share their ideas and justify their answers.
- Feedback as a whole class. Teacher highlights key answers and elicits other possible critiques.

Disclaimer: There are a variety of different answers to this activity.

What are Data Centres? EXAMPLE

H. Kennedy & C. Wilson (2024)

A data centre can be defined as a room which houses industrial equipment, hardware and software to allow for the continuous operation of multiple applications and services through storing and managing data. There are many different types of data centres but the main ones are enterprise, public cloud, and managed centres. According to IBM (2023), enterprise data centres are for companies who choose to hold all their IT infrastructure on-site, whereas public cloud centres, otherwise known as hyperscalers such as Google, offer to manage data for third parties via remote networks for shared use. Finally, a managed data centre exchange for maintenance and overseeing of data.

Data centres can provide three main benefits: reduced focus on other key aspects such as business innovation or evolution, instead of having to consider whether less busy periods, being taken up through maintaining on-site hardware (Cloud Direct, 2024). In terms of security, . allow for regulations, and managed data centres can also provide backup and disaster recovery (IBM, 2023).

Nevertheless, these benefits continue to have on the energy and water usage. Roundy (2023) states that to the US Department for Energy, the energy . more than that of 80,000 households, of which two-fifths is just for cooling (Bangalore et al., 2023). Cooling also impacts centres, in and a half million litres of water a day, enough to water almost 7 hectares of land. In addition, the water centres is issues such as how responsible data centres are in droughts (Roundy 2023).

Despite these drawbacks, solutions to address some of these problems. Bangalore et al. (2023) report that electricity power purchase well as funding for more solar- and wind-based plants from hyperscalers could help reduce a data centre's . centres, prefabricated modular construction, that is to say manufacturing buildings in controlled settings, material used in the cooling system components (Bangalore et al., 2023). It is therefore paramount that as is anticipated to be more than double by 2030 (Bangalore et al., 2023), companies will need to place

References

the rising data center https://www.mckinsey.com/investing-in-the-rising-data-center [Accessed 14 Feb 2024].

Cloud Direct, (2024). *The 'big* [online]. Available at: https://www.clouddirect.net/the-big-4-benefits-of-data- [Accessed 12 Feb 2024].

is a data center? [online]. Available at: https://ww centers [Accessed 12 Feb 2024].

Roundy, J. (2023). online]. Available at: https://www.techtarget.com/searchdatacenter/feature/Assess-the- 2024].

Possible Critical Evaluation ANSWERS

A data centre can be defined as a room which houses industrial equipment, hardware and software to allow for the continuous operation of multiple applications and services through storing and managing data [1]. There are many different types of data centres [2] but the main ones [3] are enterprise, public cloud, and managed centres. According to IBM (2023), enterprise data centres are for companies who choose to hold all their IT infrastructure on-site [4], whereas public cloud centres, otherwise known as hyperscalers [5] such as Google [6], offer to manage data for third parties via remote networks for shared use. Finally, a managed data centre [7] is typically used by smaller businesses who lease the space and equipment in exchange for maintenance and overseeing of data [8].

1. Where did this definition come from? No source?
2. What are the other types of centres?
3. Are these the main types? Where did this information come from? No source given. Extra research shows that there are 6 main types: on-premises, colocation, hyperscale, cryptocurrency, core and edge data centres (Equinix, 2022). Colocation data centres should ...

ALL ANSWERS ARE INCLUDED IN PAID VERSION...