

Academic Language of Critique

ES2631

PARAGRAPHS	COMPONENTS/FUNCTIONS
INTRODUCTION	<ul style="list-style-type: none"> • State the type of work (e.g., book, article, art) and the title of the work. • State the creators' names • Summarize the key points of the work • State the thesis statement: purpose of this critique
EVALUATION (Positive)	<ul style="list-style-type: none"> • State a positive evaluative claim • Use evidence to support the claim
EVALUATION (Positive or Negative)	<ul style="list-style-type: none"> • State a positive or negative evaluative claim • Use evidence to support the claim
EVALUATION (Negative)	<ul style="list-style-type: none"> • State a negative evaluative claim • Use evidence to support the claim
CONCLUSION	<ul style="list-style-type: none"> • Restate the thesis statement (purpose of this critique) • Summarize and highlight the positive and negative evaluations

What's the difference?

1. The test **proved** that the researchers' hypothesis was correct. **Active voice**
2. They **said** that the experiment was successful.
3. It is **going to** rain tonight.
4. This project will provide you with an invaluable experience.
5. A benefit of this development is ...
A disadvantage is ...

1. The researchers' hypothesis **was proven** to be correct. **Passive voice**
2. They **announced** that the experiment was successful. **Reporting verb**
3. It is **likely to** rain tonight. **Hedging**
4. This project will **certainly** provide you with an invaluable experience. **Booster**
5. A benefit of this development is ...
However, a disadvantage is ... **Signpost**

- Verb Tenses
- Active & Passive Voice
- Reporting Verbs
- Hedges & Boosters
- Signposts



Outline



Verb Tense



Three tenses most used in academic writing:

Verb Tense	Verb form	Function in academic writing	Example
Simple present tense	show(s) [regular] eat(s) [irregular]	State facts and truths	This study shows Mice eat
Simple past tense	showed ate	Indicate a past event	The experiment showed These mice ate
Present perfect tense	has/have + showed/shown + eaten	Refers to the field (studies in the past until the present)	Studies have shown Those mice have eaten

Verb Tense Example

Of the many AI techniques, expert systems, fuzzy logic, artificial neural networks, and genetic algorithms **are** the most commonly used classical methods in the design evaluation and optimization processes (Lu et al., 2012). However, the application of data-driven modern methods such as machine learning and deep learning in the design process **has escalated** in recent years. In a recent work by Saridakis and Dentsoras (2008), the use of classical AI techniques (i.e. fuzzy logic, genetic algorithm, and artificial neural network) in engineering design **was reviewed**. The research results **have been** a good implementation for the use of these methods in design problems. Similarly, Youssef et al. (2017) **compared** the implementation of such more traditional AI techniques in photovoltaic cell design and development.

(Yüksel, Börklü, Sezer & Canyurt,
2023)

In the critique essay

Verb Tense	Function	Example
Simple present tense	<ul style="list-style-type: none">• Thesis (purpose) statement• Facts and truths	<ul style="list-style-type: none">• This essay seeks/ aims to ...• While it is true that the region typically experiences extreme weather conditions ...
Simple past tense	<ul style="list-style-type: none">• Evaluative claims• Reference to the presentation ideas• Summary of the evaluative claims in the conclusion	<ul style="list-style-type: none">• The purpose was clear.• The presentation identified the problem of ...• Their solution was an innovative device that comprised three key parts.• The information was clear, but the assumption lacked accuracy and the point of view lacked breadth.
Present perfect tense	<ul style="list-style-type: none">• Mentioning events that started in the past and continues to the present• Reiteration of thesis statement in conclusion	<ul style="list-style-type: none">• This region has experienced extreme weather in recent years.• In conclusion, this essay has assessed/ evaluated ...



Active vs Passive Voice



Verb Tense Example

Of the many AI techniques, expert systems, fuzzy logic, artificial neural networks, and genetic algorithms are the most commonly used classical methods in the design evaluation and optimization processes (Lu et al., 2012). However, the application of data-driven modern methods such as machine learning and deep learning in the design process has escalated in recent years. In a recent work by Saridakis and Dentsoras (2008), the use of classical AI techniques (i.e. fuzzy logic, genetic algorithm, and artificial neural network) in engineering design was reviewed. The research results have been a good implementation for the use of these methods in design problems. Similarly, Youssef et al. (2017) compared the implementation of such more traditional AI techniques in photovoltaic cell design and development.

(Yüksel, Börklü, Sezer & Canyurt,
2023)

Active & Passive Voice

Verb Tense	Verb	Active Voice	Passive Voice
Simple present tense	show(s) eat(s)	This study shows good results. Mice eat cereal.	Good results are shown . Cereal is eaten by mice.
Simple past tense	showed ate	The experiment showed good results. These mice ate cereal.	Good results were shown . Cereal was eaten by these mice.
Present perfect tense	has/have + showed/shown + eaten	Studies have shown good results. Those mice have eaten cereal.	Good results have been shown by the studies. Cereal has been eaten by those mice.

Verb Tense & Voice

An assumption that **was articulated** in the presentation **was** that “there **would only be** clear skies in the application of the solar panels .. so that there **would be** maximum output power (from the solar panels)” (Jones, 2014). This assumption obviously **lacked** depth, since it **did not consider** the complexities that **relate** to climate and weather changes. Nicaragua not only **has** a wet season from May to October, but the country also **faces** typhoons and hurricanes due to its geographic location (Climate Change Knowledge Portal, 2021). Thus, during the wet season, it **would be** difficult for the solar panels **to receive** the maximum amount of sunshine **to provide** sufficient electricity **to power** a rural house. Furthermore, the assumption **was supported** with an example of two solar panels supplying energy for a house with **four LED lights**, a television and a household fan. This example **failed** **to account** for households with more electrical appliances than these, where the use of two solar panels **would likely be** insufficient even on days with clear skies.

In the critique essay

Voice	Function	Example
Active	To emphasize the doer/agent of the action or state of being: <ul style="list-style-type: none">• Stating the evaluative claim• Highlighting what the evidence or speakers said• Describing the solution	<ul style="list-style-type: none">• The purpose was relevant to the question at hand.• According to Tee et al (2022), the statistics show that ...• They provided the definition ...• The device consisted of ...
Passive	To emphasize the action .	<ul style="list-style-type: none">• The trend of overpopulation over the last ten years was presented...• The responses to the survey were analysed...

Reporting Verbs



ES2631 Critique and Communication of Thinking and Design
SOURCES: TYPES, SELECTION, INTEGRATION AND ATTRIBUTION

Please read this document carefully. It provides instruction on academic source types, selection using NUS library resources, integration and proper attribution. It also includes a link to the NUS policy on plagiarism (2021) and relevant extracts from the NUS interim policy on AI use (2023).

I. Source types and selection

In academic research, we categorize sources into these three types:

Primary sources	Secondary sources	Tertiary sources
These provide "raw" or, as yet, uninterpreted data. Primary sources vary by discipline and can include observations, surveys/questionnaires, experimental data, original reports, policy or legal documents, photographs, news articles, social media posts/comments, advertisements/commercials, interviews, objects, literature and film.	These are papers that interpret primary data in order to make an argument or solve a research problem. Mainly published in academic journals, they are written for scholarly or professional audiences, use theories, concepts and methodologies relevant to the field and, in doing so, engage with and contribute to the area of inquiry.	These are books and articles that summarize, synthesize or report on secondary sources. They are meant for a general audience and include textbooks, manuals, encyclopaedias and articles in subject specific popular magazines like MIT Technology Review, Computer World or Wired.

In general, academic secondary sources help researchers (a) determine what has already been written on the subject to identify gaps, tensions, contexts and problems worth examining, (b) derive concepts, models or frameworks that can be used to analyze the problem and/or primary data, (c) derive or develop an appropriate research methodology for analysis, and (d) support, extend, problematize or contest claims or perspectives on the topic.

It is important that you consider the reliability of sources before you use them in your work. The quality of your sources will play a central role in determining the credibility and persuasiveness of your argument or solution to your research problem. If your argument or solution is largely based on secondary sources, you must select them carefully. You may use a combination of scholarly and popular sources such as news articles from reputable media publications for your assignments.

Scholarly secondary sources go through a meticulous peer review process (by fellow experts/academics) before they are deemed fit for publication in an academic journal or book. If using an article from a journal, find out whether the journal is peer reviewed or refereed by looking up its website. Books published by university presses (e.g., OUP, MIT Press, University of Minnesota Press, Duke University Press, NUS Press, etc.) are generally regarded as scholarly. A few other presses such as Routledge, Springer, Palgrave-Macmillan, Lexington, Verso, etc. also publish refereed academic work. Examining the references (notes and bibliography) may also help you decide whether a book is academic.

II. Integrating sources into your writing

Sources must *support* your argument, not make it for you. To maintain your authorial voice, it is important to use sources “strategically” and “purposefully” (Alfano & O’Brien, 2008, p. 190).

We typically integrate sources into our writing in three ways:

III. Attribution and citation

Attribution is a key component of knowledge construction in academia. We cite other authors to situate our research within a disciplinary field or knowledge community, demonstrate our familiarity with existing scholarship and contribute to it through critical and creative engagements. Not

AI Tool Used	Prompt and output	How the output is used in the assignment
ChatGPT	1. What are different types of mechanical levers?	Based on information given, we selected the best options (combination of first- and

Function of Verbs	Examples
Convey Research Acts (findings and procedures)	<ul style="list-style-type: none"> Findings – <i>observe, discover, notice, <u>show</u></i> Procedures – <i>analyze, calculate, measure, assay, explore</i>
Convey Cognition Acts related to mental processes	<i>believe, conceptualize, suspect, view</i>
Convey Discourse Acts related to verbal expression	<i>ascribe, discuss, hypothesize, explain, state, remark, mention, articulate, convey</i>
Convey Evaluation by attributing a position to the author being cited and sometimes communicating the writer's stance or judgment on the cited source	Reporting the information cited as <ul style="list-style-type: none"> true: <i>acknowledge, point out, <u>establish</u></i> negative: <i>fail, overlook, exaggerate, <u>ignore</u></i> positive: <i>advocate, argue, hold, <u>see</u></i> neutral: <i>address, cite, comment, <u>examine</u></i> tentative: <i>allude to, hypothesize, believe, <u>suggest</u></i> critical: <i>attack, condemn, object, refute</i>

For more examples of reporting verbs, you may refer to this handout:

<https://www.ncl.ac.uk/mediav8/academic-skills-kit/file-downloads/Reporting%20verbs.pdf>

Examples

Reporting Verbs in Academic Writing

explanation	argument	agreement	disagreement	support
announces articulates clarifies comments confuses defines describes estimates explains identifies illustrates implies informs instructs lists mentions notes observes outlines points out presents remarks reminds reports restates reveals	alerts argues assures contends convinces emphasizes exhorts insists interprets proves reasons warns	acknowledges accepts admits agrees applauds concedes concurs confirms extols praises recognizes supports	accuses challenges contradicts criticizes discards dismisses disputes disregards opposes questions refutes rejects	asserts believes claims declares expresses feels holds insists maintains professes thinks upholds
	suggestion	examination	emphasis	conclusion
	advises advocates alleges asserts hypothesizes intimates posits postulates proposes recommends	analyzes appraises assesses compares considers contrasts critiques evaluates examines investigates	accentuates emphasizes highlights stresses underscores	concludes discovers finds infers realizes

(Grammar Monster, n.d.)

In 1969, cognitive scientist and Nobel Prize laureate Herbert A. Simon design as a way of thinking in his book, *The Sciences of the Artificial*. Robert H. McKim, Emeritus Professor of Mechanical Engineering, also the notion of design thinking in his 1973 book, *Experiences in Visual Thinking*. In 1982, Nigel Cross continued to make history in the design thinking world when he the nature of how designers solve problems in his seminal paper “Designerly Ways of Knowing”. In the paper, Cross designers’ problem-solving processes to the non-design-related solutions we develop to problems in our everyday lives.

(Adapted from Dam & Teo, 2022)

In the critique essay

Verb Type	Function	Example
Reporting verbs		

Function of Verbs	Examples
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Convey Discourse Acts related to verbal expression	<i>ascribe, discuss, hypothesize, explain, state, remark, mention, articulate, convey</i>
Convey Evaluation by attributing a position to the author being cited and sometimes communicating the writer's stance or judgment on the cited source	Reporting the information cited as <ul style="list-style-type: none"> true: <i>acknowledge, point out, <u>establish</u></i> negative: <i>fail, overlook, exaggerate, <u>ignore</u></i> positive: <i>advocate, argue, hold, <u>see</u></i> neutral: <i>address, cite, comment, <u>examine</u></i> tentative: <i>allude to, hypothesize, believe, <u>suggest</u></i> critical: <i>attack, condemn, object, refute</i>

Reporting Verbs in Academic Writing				
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suggestion	examination	emphasis	conclusion	
advises advocates alleges asserts hypothesizes intimates posits postulates proposes recommends	analyzes appraises assesses compares considers contrasts critiques evaluates examines investigates	accentuates emphasizes highlights stresses underscores	concludes discovers finds infers realizes	



Hedges and Boosters



HEDGES

Lessen the degree of certainty of a claim/ soften a claim

- Verbs – appears to be/ seems to
- Modal verbs – might, could
- Reporting verbs – claims, suggests
- Adverbs – possibly, often, perhaps
- Nouns - assumption
- Phrases – It can be argued

BOOSTERS

Increase the degree of certainty of a claim/ strengthen a claim

- Adverbs – indeed, absolutely, certainly, definitely
- Adjectives – important, largest
- Phrases – It is certain that

Machine learning (ML) is a class of artificial intelligence (AI) that focuses on teaching computers how to make predictions from available datasets and algorithms. **Most importantly**, it provides computer systems the ability to learn and improve themselves rather than being explicitly programmed. Although ML was **possibly** born in 1943 and first coined in 1959, it **apparently** started to flourish in the 1990s, and has become **the most** successful subfield of AI. **It seems that** ML has also become one of the technology buzzwords of our age since it **undoubtedly** plays a pivotal role in many real-world applications such as image and speech recognition, traffic alerts, self-driving cars and medical diagnosis.

In the critique essay

Feature	Function	Example
Hedges	<ul style="list-style-type: none">To soften a claim	<ul style="list-style-type: none">The presenters assumed that ...They appeared to ...
Boosters	<ul style="list-style-type: none">To strengthen a claim	<ul style="list-style-type: none">The evidence clearly shows that ...Based on the evidence, there was no doubt that ...

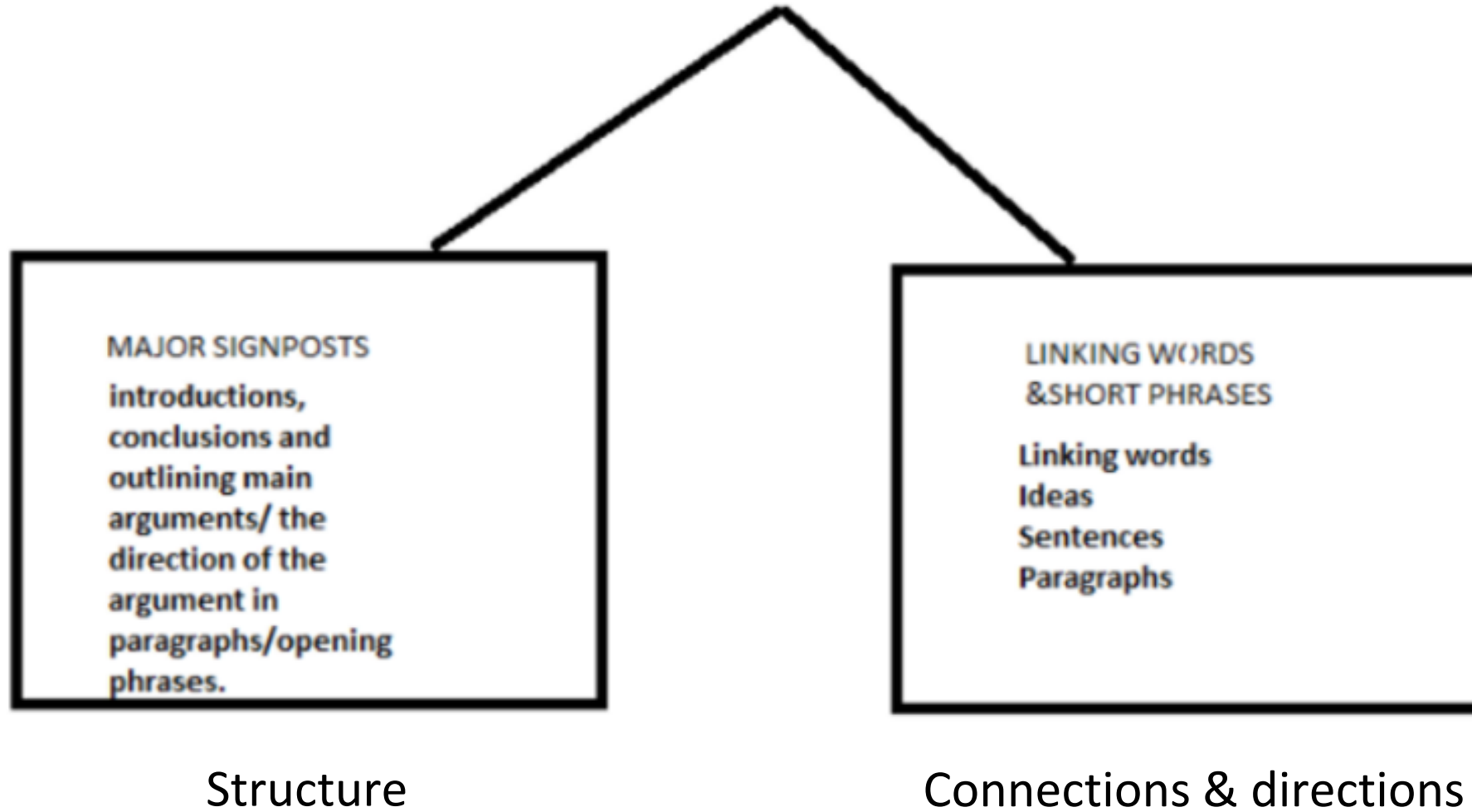
Expressing certainty without boosters: “The evidence shows”



Signposts



Types Of Signposting



Examples

Addition,	Contrast
In addition,	However,
Additionally,	Nevertheless
Furthermore,	In contrast (to)
Moreover,	Whereas
Comparison	Example
Similarly,	For instance,
Similar to	To illustrate,
In comparison with	To exemplify,
Compared to / with	That is (i.e.)
Result	Sequence
As a result,	Firstly, secondly,
Consequently,	Next, last, finally
Therefore,	Subsequently,
Thus	The latter / the former
Emphasis	Reason
Undoubtedly,	Owing to
Particularly,	Due to the fact that...
Clearly	Because (of)
Importantly	Since
Conclusion	
In summary,	
In conclusion,	
Overall,	
Finally,	

Signposts

Components of an Essay	Signposts
Introduction <ul style="list-style-type: none">- Thesis statement	The essay will <u>examine/ address/ analyse/ show/ review/ evaluate</u> <i>three aspects/ the advantages of/ three elements [or state: assumption, point of view and information]/ the accuracy of assumption, point of view and information.</i>
Body paragraphs <ul style="list-style-type: none">- Moving from one paragraph to the next- Moving from one idea to the next within the same paragraph	The first element is/ Firstly/ First/ However/ In contrast/ While/ Although Furthermore/ In addition, Moreover As a result/ Therefore/ Thus
Conclusion	In conclusion/ To conclude/ To sum up

- Verb Tenses
- Active & Passive Voice
- Reporting Verbs
- Hedges & Boosters
- Signposts



academic language
features

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