The University Of Sheffield.

English Language Teaching Centre.

English language support for computer science

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- https://forms.gle/ZmNkyBZhGRae5V6M9

Lesson aims

Look at ways to referring to previous research

Focus on the use of passive forms

Study the use of articles in academic writing

Review quiz

1. What is the function of an abstract?
2. Which section comes after the literature review?
3. What do you need to include in a citation in the Harvard style?
4. What is another name for the list of references?
5. In which section of the dissertation could you give recommendations for future research?
6. Why should you express caution when discussing your results?
7. What tense would you normally use to explain the limitations of your research?
8. What's the difference between coherence and cohesion?
9. How do you organise a list of references in the Harvard style?

Review quiz

1. What is the function of an abstract? To give the reader an overview of the whole paper.
2. Which section comes after the literature review? Requirement analysis
3. What do you need to include in a citation in the Harvard style? Surname, year, page number.
4. What is another name for the list of references? Bibliography.
5. In which section of the dissertation could you give recommendations for future research? Discussion or conclusion.
6. Why should you express caution when discussing your results? You cannot be certain of the factors that influence the results.
7. What tense would you normally use to explain the limitations of your research? Past tense
8. What's the difference between coherence and cohesion?
9. How do you organise a list of references in the Harvard style? Alphabetical order.

Referring to previous research history - verb tense

- In the introduction and literature review sections of a master's level dissertation it is good practice to provide background information, both on the wider topic and on the specific focus of your study. In doing this you may want to **refer broadly to the previous research history**.

- **Verb tense** will often be determined the choice of **time expression** when referring research history. Learning which tenses are used with which time expressions is key to achieving accuracy and natural sounding English.

❑Study these sample expressions - identify time expressions and verb tenses

Research into X has a long history.

For many years, this phenomenon was surprisingly neglected by …

Only in the past ten years have studies of X directly addressed how …

Prior to the work of Smith (1983), the role of X was largely unknown.

Over the past decade, most research in X has emphasized the use of …

In recent years, there has been an increasing amount of literature on …

Early examples of research into X include … (Smith, 1962; Jones, 1974).

During the past 30 years, much more information has become available on …

The first serious discussions and analyses of X emerged during the 1970s with …

Over the past two decades, major advances in molecular biology have allowed …

Historically, research investigating the factors associated with X has focused on …

It is only since the work of Smith (2001) that the study of X has gained momentum.

The construct of X was first articulated by Smith (1977) and popularised in his book: …

Around the early 1960s, small-scale research and case studies began to emerge linking …

It was not until the late 1960s that historians considered X worthy of scholarly attention.

Awareness of X is not recent, having possibly first been described in the 5th century BCE by….

Present simple	
Past simple	
Present perfect	

Sample analysis

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Present simple	3
Past simple	8
Present perfect	7

Time expressions

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Over the past decade, most research in X has emphasized the use of …

In recent years, there has been an increasing amount of literature on …

Early examples of research into X include … (Smith, 1962; Jones, 1974).

During the past 30 years, much more information has become available on …

The first serious discussions and analyses of X emerged **during the 1970s** with …

Over the past two decades, major advances in molecular biology have allowed …

Historically, research investigating the factors associated with X has focused on …

It is only since the work of Smith (2001) that the study of X has gained momentum.

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Summary of time expressions used with two key verb tenses.

Present perfect	Past simple
In the past ten years….	For many years….
Over the past decade….	Prior to the work of Smith…
In recent years….	During the 1970's
During the past 30 years….	Around the early 1960's….
Over the past two decades….	It was not until the late 1960's that…
Historically, ….	
It is only since the work of Smith that…	

Look at the extract from an introduction. What time expressions do you notice? What verb tenses go with them?

https://docs.google.com/document/d/1HcNIvYEtu6pKw1eQ-Fpn5B4oadY_C4o1smBr5lKwUWw/edit

Find and correct the mistakes in the sentences referring to research.

1. A research study was conducted for one month by the PACE Research Group in 2007 [10]. The aim of the research study is to check the usability and the compliance of patients using PmEB, a mobile application for managing weight and caloric balance.
2. To date, this feature extraction method had widely used in robotics, image-based computer graphics and so on. (Yanbiao, S. et al. 2014)
3. K-means is one of the most widely used machine learning algorithm, which is developed by Mac Queen in 1967. (Sobia, Z. et al. 2015)
4. Virtual Reality is a concept of generating realistic environment, and thanks to the improvement of both hardware and software, it develops dramatically fast in recent decades.
5. A new technology, which is called blockchain, has an essential impact on IT and commercial computing societies in recent years [2].
6. Hyperledger [14] founded as an open source initiative and the main purpose of the creation of hyperledger was to help blockchain technologies which are scalable.

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The Passive

1. Often used when agent (usually the subject in an active sentence) is obvious, very general unimportant or unknown

Active: Doctors or surgeons carried out 70% of the operations within 2 days of **hospital staff** admitting the patients to hospital.

Passive: 70% of operations were carried out within 2 days of patients being admitted to hospital.

Not necessary to say doctors carry out the operations - we know this.

We also know hospital staff are the people who admit patients to hospital.

Paterson, K., Wedge, R., (2017) Oxford Grammar for EAP, Oxford University Press

The Passive

1. Often used when agent (usually the subject in an active sentence) is obvious, very general unimportant or unknown

Active: People can renew their passports at the post office or online

Passive: Passports can be renewed at a post office or online.

Not necessary to say 'people'.

Active: The police arrested the criminals and found 5 kg of drugs.

Passive: The criminals were arrested and 5 kg of drugs were found.

We know it is police who arrest criminals not necessary to include in the sentence.

The Passive

2. Can be used to present the information in the best way that suits the text. You might want to mention the action, or idea, or event first, before you mention the agent.

A potential cure for Alzheimer's has been discovered by scientists working at Hays Laboratory, Texas.

The focus is on the cure, not the scientists or the location .

Paterson, K., Wedge, R., (2017) Oxford Grammar for EAP, Oxford University Press

Passive verb forms are often used in the methodology section of a paper, as we are more interested in the actions and procedures rather than the person who performed them.
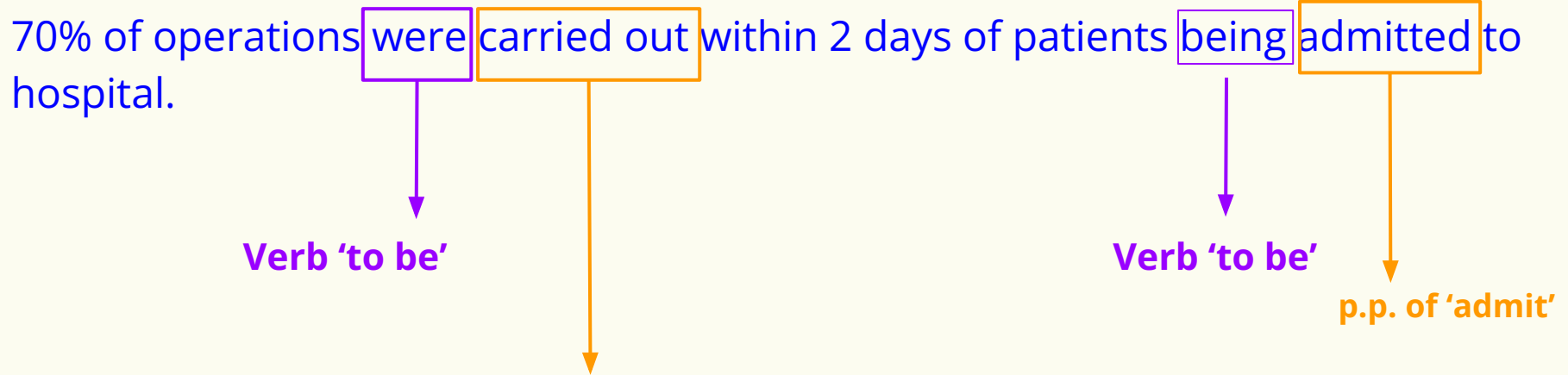
The Passive in Writing

All passive structures have 2 parts.

What are they? (think about the grammar)

eg 70% of operations were carried out within 2 days of patients being admitted to hospital.

The Passive in Writing

Verb 'to be' + past participle

70% of operations were carried out within 2 days of patients being admitted to hospital.

Verb 'to be'

Past participle of 'carry out'

Verb 'to be'

p.p. of 'admit'

Tense of verb '*to be*' depends on 'tense of sentence' and/or verb form in active sentence.

The Passive in Writing

Most common verb forms you tend to using academic writing are present simple, past simple, future simple, present perfect.

This is true for both active & passive forms.

tense	form of the verb 'to be'	past participle
Present simple	is	represented
Past simple	was	developed
Present perfect	has been	researched
Will future	will be	verified
Future perfect	will have been	completed

It is often not necessary to mention the subject when using the passive form.

For example:

Software engineers produce updates every month.

Updates are produced every month.

How would you express these sentences using passive form?

1.We showed experimentally that stemming improved performance for all models other than the Decision tree.

2.Computer scientists originally designed the IoT devices to complete relatively easy tasks, such as obtaining sensor data.

3.I did analysis to determine whether stemming of words would improve performance.

4.We should note that the weights and bias values used will be initiated randomly

5.We show this to be a consistent trend.

6.The last model that we will review for the classification of genres is the Decision Tree algorithm.

How would you express these sentences using passive form?

1.It was experimentally shown that stemming improved performance for all models other than the Decision tree.

2.The IoT devices are originally designed to complete relatively easy tasks, such as obtaining sensor data

3.Analysis was done to determine whether stemming of words would improve performance.

4.It should be noted that the weights and bias values used will be initiated randomly

5.This is shown to be a consistent trend.

6.The last model that will be reviewed for the classification of genres is the Decision Tree algorithm.

The use of articles (a, an,the) in academic writing

What is the difference between the two sentences?

Much of <u>the current research</u> into writing quality is in the domain of Automated Essay Scoring.

<u>Research</u> usually has limitations.

Much of <u>the current research</u> into writing quality is in the domain of Automated Essay Scoring. (specific)

<u>Research</u> usually has limitations. (general)

The two main categories of software are application software and system software.

The software was developed by Microsoft.

What is the difference between the two sentences?

In the end, volunteers complete <u>a</u> map sketching task.

<u>The</u> map sketching task is the most important method used for measuring the effect of GPS.

In the end, volunteers complete <u>a</u> map sketching task. (first time it is mentioned)

<u>The</u> map sketching task is the most important method used for measuring the effect of GPS. (it has already been mentioned)

Some rules of article use.

A singular countable noun always needs an article (a, an, or the).

When mentioning something for the first time, use 'a' or 'an'. When mentioning it after that, use 'the'.

If the noun is uncountable or plural, and we are making a general statement, we don't use an article.

If the noun is uncountable or plural, and we are talking about specific items, we have to use an article.

Complete the text with the correct article

_____ aim of this project is to create ____ software product which will facilitate the administration tasks of the SSS admin staff with regards to finding available slots and booking the appointments. _____system would enable _____ user to collect information about the availability of the Faculty Officers in specified dates. Once suitable dates have been identified, the user can then use this information to automatically book ____ meeting slot in the calendars of all attendees. ____ invitation would be sent to all relative parties. Management of ____system entities would be done from within the system. As such the user would be able to add and amend Faculties, Faculty Officers, meeting rooms and SSS staff. _____ application would be available through _____ Web so that it is easily accessible from the SSS staff. Additional concerns such as _____ usability and _____ security would also be considered to produce a robust system.

The aim of this project is to create a software product which will facilitate the administration tasks of the SSS admin staff with regards to finding available slots and booking the appointments. The system would enable the user to collect information about the availability of the Faculty Officers in specified dates. Once suitable dates have been identified, the user can then use this information to automatically book a meeting slot in the calendars of all attendees. An invitation would be sent to all relative parties. Management of the system entities would be done from within the system. As such the user would be able to add and amend Faculties, Faculty Officers, meeting rooms and SSS staff. The application would be available through the Web so that it is easily accessible from the SSS staff. Additional concerns such as usability and security would also be considered to produce a robust system.

We need to think about whether a noun is countable or uncountable when deciding which article to use.

Are the nouns countable or uncountable?

Software   application   communication   information   bandwidth

Algorithm   network   intelligence   storage   security

Download   memory   sequence   equipment

Countable	Uncountable
Application	Software
Algorithm	Communication
Download	Information
Network	Bandwidth
Sequence	Equipment
	Intelligence
	Storage
	Memory
	Security

Uncountable nouns can be 'counted' by using an extra word.

For example:

A piece of software

An item of equipment

Little/few research has been done on this problem.

Much/many information is contained in the book.

With uncountable nouns, use much and little.

With countable nouns, use many and few.

Choose the correct answers.

(a) <u>Little/ few</u> news about the accident was released.

(b) He established three successful <u>businesses/ business</u> in 2008.

(c) Substantial <u>experiences/ experience</u> of report writing <u>are/ is</u> required.

(d) It is often claimed that <u>travel broadens/ travels broaden</u> the mind.

(e) <u>Paper was/ papers were</u> very expensive in the twelfth century.

(f) How <u>much advice/ many advices</u> were they given before coming to Australia?

(g) She had <u>little interest/ few interests</u> outside her work.

(h) The insurance policy excludes the effects of civil <u>war/ wars</u>.

(i) <u>Irons were/ iron was</u> first powered by electricity in the twentieth century.

(j) They studied the <u>work/ works</u> of three groups of employees over two years.

Special rules

1. Common expressions with no article after preposition.

   I'm going to *school*.

   I work at *home*.

   What did you have for *dinner*?

2. Genitive possessives.

   Have you seen *John's coat*?

   We should discuss America's economic problems.

3. We can use *the* with many adjectives to talk about people in general.

   the rich, the poor, the unemployed, the blind, the deaf, the disabled, the young, the old.

Or with some nationalities to refer to the people of that country.

   the French, the British, the Irish, the Japanese, the Chinese

4. Place names

We use *the* with:

Seas	the Pacific, the Mediterranean
Mountain groups	the Himalayas, the Andes, the Alps
Island Groups	the West Indies, the Canary Islands, the British Isles
Regions	the Middle East, the Far East, the south of China, the north of France
Rivers	the Nile, the Thames

countries   national groups   groups/organisations   single mountains   lakes

   unique objects   rivers   titles of people   general countable plurals

 mountain ranges   continents   collective countries   jobs

   introducing something new   uncountable nouns   oceans   names

      streets   shared knowledge

Definite article - the	Indefinite article - a,an	No article

Definite article - the	Indefinite article - a,an	No article
National groups	jobs	lakes
Unique objects	Introducing something new	Single mountains
Mountain ranges	Titles of people	countries
Collective countries		rivers
oceans		General countable plurals
Shared knowledge		Uncountable nouns
		names
		streets

To
Discover
And
Understand.