

Relative clauses

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I. Defining clauses

Defining clauses specify/define which person/thing/animal is meant. Remember that the defining clause **is not separated** from the rest of the sentence by **a comma/commas**.

Defining pronouns	Subject		Object		
Persons	who	that	who(m)	that	zero
Things/Animals	which	that	which	that	zero

Persons

*I have a friend **who** spent a year at a British university. (formal)*

*I have a friend **that** spent a year at a British university. (informal)*

*Steve Jobs was a visionary **whom** many people admired. (very formal)*

*Steve Jobs was a visionary **who** many people admired. (less formal)*

*There's the student **that** I met at yesterday's workshop. (informal)*

There's the student I met at yesterday's workshop. (informal)

Things/Animals

*The computer is an invention **which** has revolutionized the business world. (formal)*

*The computer is an invention **that** has revolutionized the business world. (informal)*

*The device **which** you can see in this picture is the prototype developed by our team. (formal)*

*The device **that** you can see in this picture is the prototype developed by our team. (informal)*

The device you can see in this picture is the prototype developed by our team. (informal)

II. Non-defining clauses

Non-defining clauses do not specify but give additional information. Remember that the non-defining clause **is separated** from the rest of the sentence by **a comma/commas**.

Non-defining pronouns	Subject	Object
Persons	who	who(m)
Things/Animals	which	which

Persons

*We invited Dr Smith, **who** is an outstanding specialist in electrical machines, to speak to our students.*

Dr Smith, **whom** you haven't met yet, is an outstanding specialist in electrical machines. (very formal)

Dr Smith, **who** you haven't met yet, is an outstanding specialist in electrical machines.

Things/Animals

The IEEE Sensors Journal, **which** is published monthly, is one of the leading journals in the field.

I'd like to borrow the April 2010 issue of the IEEE Sensors Journal, **which** you showed me yesterday.

III. Notes

- Association with a person, organization, company, town, country is expressed by **"whose"**.

Steve Jobs, **whose** name is for most people associated with Apple, died in 2011.

We need to learn from companies **whose** marketing policy is better than ours.

With things, **"noun + of which"** or **"whose"** is used.

He presented the latest Faculty project, **the main objective of which/whose main objective** is to modernize the teaching methods.

It is, however, better to avoid this construction as it sounds rather clumsy.

You can say:

He presented the Faculty project. Its main objective is ...

The main objective of the Faculty project which he presented is ...

- **"All, little, much"** (used as nouns) and **superlatives** are followed by **"that"** (not "which"); when used as **objects**, they can be followed either by **"that"** or the **zero pronoun**.

All **that** remains to be done can be done tomorrow. (not "which")

He is the best friend (**that**) I've ever had. (not "who")

- **"What"** can also be used as a relative pronoun but only in the meaning "the things that" (= to, co). Distinguish between:

They showed us **what** they had done. (not "that/which")

They showed us all (**that**) they had done. (not "what")

- **"Which"** can also refer to a whole **clause** (= *čož*). It is always preceded by a **comma**.

He wasn't able to cope with that situation, **which** surprised me.

- With nouns referring to a **group of people** (e.g. company, management, government) both **who**, **which** and **that** are used.

Governments **who** tolerate corruption should resign.

Governments **which/that** tolerate corruption should resign.

IV. Relative pronouns and prepositions

Formal/Very formal style	Less formal/Informal style
preposition + whom	who + preposition
preposition + which	which + preposition
whom + preposition	that/zero + preposition

*The gentleman **about whom** they spoke was from Manchester. (very formal)*
*The gentleman **whom** they spoke **about** was from Manchester. (very formal)*
*The gentleman **who** they spoke **about** was from Manchester. (less formal)*
*The gentleman **(that)** they spoke **about** was from Manchester. (informal)*
*The paper **to which** he referred was published in 2010. (formal)*
*The paper **which** he referred **to** was published in 2010. (less formal)*
*The paper **(that)** he referred **to** was published in 2010. (informal)*

In formal style the preposition precedes the pronoun but can also come later in the relative clause. In informal style it always comes later in the relative clause.

Note:

“That” (relative pronoun) cannot be preceded by a preposition or a comma.

Wrong: *The paper to that he referred ...*

V. Relative clauses introduced by “wh-words”

“Wh-words” are often used instead of a preposition + the relative pronoun structure.

when	where	whereby	why
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In formal style, the prepositional phrase is quite common.

*This is the point **where** the two lines intersect.*
*This is the point **at which** the two lines intersect.*
*I don't remember the date **when** we are to submit the thesis.*
*I don't remember the date **on/by which** we are to submit the thesis.*
*The University has adopted a program **whereby/by which** plagiarism will be, if not eliminated, at least reduced.*
*Do you know the reason **why** he resigned?*
*Do you know the reason **for which** he resigned?*

VI. Structures used instead of relative clauses

1. The –ing and –ed forms

- ing

*The team **working** on the project consists of both staff and students. (that works)*

- ed

*The method **used** by our team proved to be very reliable and efficient. (that was used)*

“being + -ed”

*The issue **being discussed** at all faculties now is the University budget. (which is being discussed)*

2. The “to infinitive” structure

This structure is often used after: the first/the second/the third ...

the only/the next/the last

superlative + noun

- | | |
|--|-------|
| 1. My supervisor was the first person I asked for advice. | WHOSE |
| My supervisor was the first person whose advice I asked for. | |
| 2. I don't really like any changes for the worse. | WHAT |
| | |
| 3. I've read all his papers but one. | THAT |
| | |
| 4. It was very strange that nobody asked any questions after the | WHICH |

presentation.

-
- | | |
|---|----------------|
| 5. We are preparing a project. Its objective is to propose more efficient ways of waste recycling. | WHOSE/OF WHICH |
| | |
| 6. I don't remember the name of the author of that paper. | WHO |
| | |
| 7. He couldn't give us a better example than this. | THAT/ZERO |
| | |
| 8. She said something about their new approach; unfortunately, I didn't catch it. | WHAT |
| | |
| 9. I admire researchers such as Adam G. Riess; he won the Nobel prize for physics this year. | WHO |
| | |
| 10. The Chairman of the afternoon session did an excellent job. His name is difficult to pronounce. | WHOSE |
| | |

III. Complete with prepositions.

1. I attended many workshops on management and marketing the best which was the one held at this University last week.
2. We took the visitor to the top floor where it is possible to see the whole campus.
3. He published tens of papers many which were cited in a number of prestigious journals.
4. We only have one week till next Friday which time the application must reach the Ministry.
5. Several people criticized the way which the celebration was organized.
6. This is a method which you can easily determine the presence of chemicals in water.

IV. Reduce the relative clauses by using the "to infinitive, -ed, -ing" or "being + -ed" constructions.

1. The first step that we have to take is the creation of an estimation model.
.....
2. The authors find that their model compares favourably with the model which was published by XY in 2008.
.....
3. The relationship that this research revealed provides valuable insight for both researchers and practitioners.
.....
4. The report which will be published next month will contain all the important facts.
.....
5. The new research centre which is being built next to the Faculty is financed from a European grant.
.....

6. The only Czech who will participate in the international competition is a PhD student from our University.

7. Information sharing is one of the issues that will be dealt with at the next meeting.

8. Seniors who lack experience in the use of computers will be offered some basic training.

9. If you want to know when the International Summer Language School starts, the person you should contact is Ms XY from the International Office.

10. The two faculties which are doing research into environmental issues have agreed on close cooperation.

V. Formulate definitions of the terms below (1 to 10) by matching phrases in A with phrases in B and using a relative clause (sometimes you may have to add a preposition). Where possible, use also the reduced relative clause.

A

... is a nuclear reactor

... is an algebraic expression, equation or quantity

... is a general term for alloys

... is the turning moment exerted by a tangential force

... is a screw thread cutter

... is a computer-controlled machine

... is a system of moving parts

... is the practice, description and terminology of any or all of the applied sciences

... is the scientific discipline

... is a system of insulated conductors

B.

It is able to sense, grip and move objects.

They form the current-carrying element of an electrical machine or static transformer.

It is designed to produce both useful power and fuel.

Metal objects are made by casting in moulds.

It remains the same while the variables change.

They have practical value and/or industrial use.

It studies the interrelations between living organisms and their environment.

It acts at a distance from the axis of rotation.

The electron beam comes to a focus inside the accelerating anode of a cathode-ray tube.

It helps us understand the nature of something or determine its essential features and their relations.

... is the point	They are used for joining metals together.
... is a workshop	Its edge is serrated to the profile of the screw thread.
... is a fundamental particle	They transmit motion.
... is a process	It is present in all atoms.

1. A foundry is a workshop where/in which metal objects are made by casting in moulds.
2. A robot
3. Ecology
4. The cross-over area
5. Torque
6. A winding
7. A gear
8. A constant
9. Solder
10. Technology
11. A power breeder
12. A chaser
13. The proton
14. Analysis