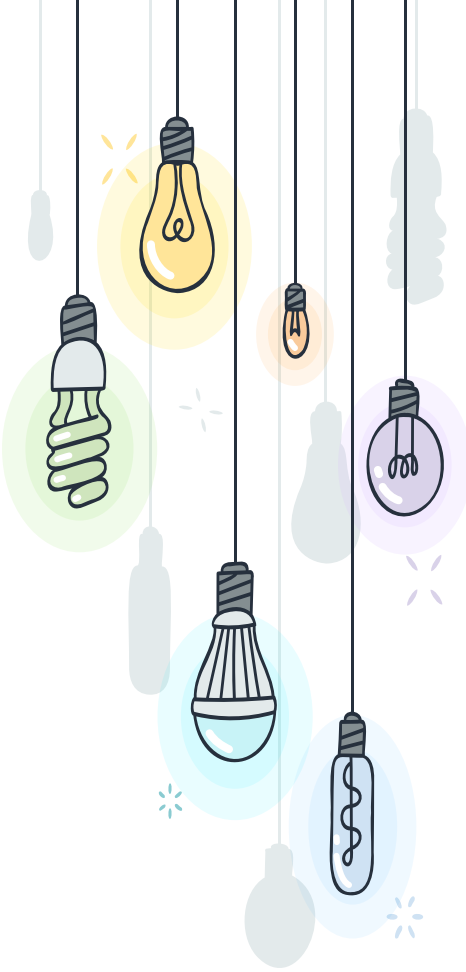
There's even more to the Library than you might think: tips for masters students.

NOVA SCHOOL OF SCIENCE & TECHNOLOGY

BIBLIOTECA FCT UNL
CAMPUS DE CAPARICA

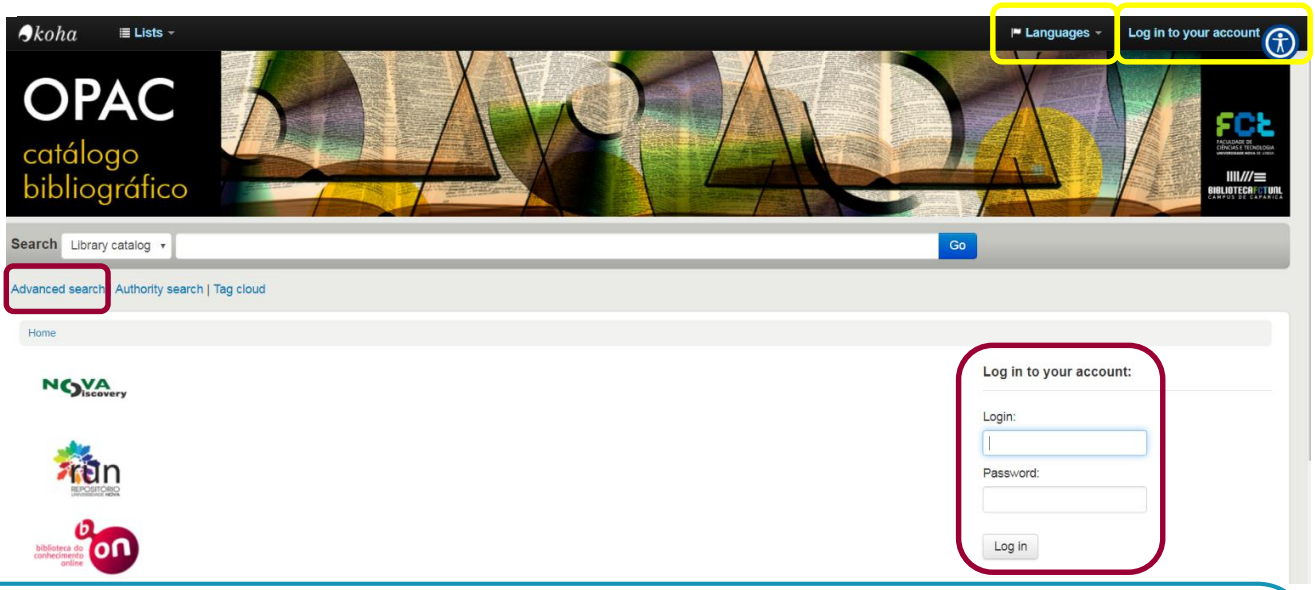
Contents: outline

- ✓ Scientific information
- ✓ Information sources – categories & types
- ✓ Remote access to information resources
- ✓ Search techniques and strategies
- ✓ Bibliographic management software
- ✓ Ethical use of information
- ✓ Citing and referencing / Bibliographic styles
- ✓ How to structure academic projects



Welcome to the Library

To register in the Library Catalog



To register in the Library database go to the Library web page, **https://www.biblioteca.fct.unl.pt,** access the online catalog (OPAC) and in "log in to your account" introduce your CLIP username and password, from that moment on you'll be a registered user of the Library.

Borrowing from the library

Borrower category	Number of documents	Loan period
Master and PhD students	10	30

Attention!

- ✓ **Fines are charged** if you return your books late!
- ✓ **Check the return date** on your book or on your personal area in the library database.
- ✓ **Books may be renewed online twice** if no other reader has placed a hold on them.
- ✓ If you want to borrow an item which is already on loan you may place a **hold** on it; when it is returned, you will be informed by email and the book will be kept for you at the front desk for **2 days.**

Electronic resources

- ✓ Library Catalog (e-books)
- ✓ B-on (Biblioteca do conhecimento online)
- ✓ NOVA University Repository – RUN
- ✓ NOVA Discovery

https://opac.fct.unl.pt/

biblioteca do conhecimento online

http://www.b-on.pt/

run REPOSITÓRIO UNIVERSIDADE NOVA

http://run.unl.pt/

NOVA UNIVERSIDADE NOVA DE LISBOA

https://discovery.ebsco.com/c/t73ky3/

See instructions for connecting via VPN at:
https://www.div-i.fct.unl.pt/servicos/vpn

Scientific information

SCIENTIFIC INFORMATION?

Does everyone knows how to search for scientific information?

WHAT IS SCIENTIFIC INFORMATION?

- It is current, relevant, accurate information whose author is qualified to speak on the subject and whose objective is to be impartial, objective and to promote the evolution of science.

- It is information certified through the process of peer review, and published in scientific journals, as articles

What is Peer Review?

- It is how scientific publishers ensure the quality of their publications.

- It consists on the evaluation of the submitted articles to the journals by one or more specialists, designated by the publishers and/or authors, invited amongst the world's leading specialists in the various scientific / disciplinary areas

Information sources

Information sources– categories

- ✓ Aggregators
- ✓ Search engines
- ✓ Reference databases
- ✓ Full Text databases
- ✓ Publishers databases
- ✓ Catalogues
- ✓ Specific resources like NOVA Discovery

Open Access resources:

- ✓ Institucional repositories;
- ✓ Thematic Repositories
- ✓ Directories
- ✓ Portals

Information sources– categories

Aggregators

Repositories

Search engines

Databases

Portals

Publishers databases

Digital libraries

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Types of Information Sources

Primary sources - contain original information about a subject, that is to say, when the **information is released by the 1st time**, like:
Theses; research articles; Scientific and technical reports; Conference proceedings; Statistics, interviews, surveys; Books presenting original ideas

Secondary sources - These **analyze, interpret and comment** the primary sources.
They are meant to summarize and structure information from primary sources:

- ✓ Books and articles (review articles) that report or summarize the findings of others, ie a summary of existing knowledge
- ✓ Library catalogues are included in this category

Types of Information Sources

Tertiary sources:

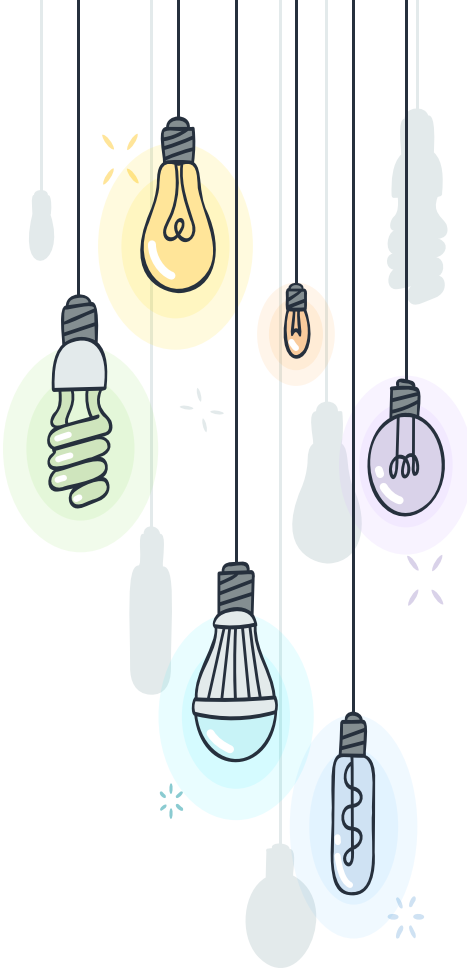
These are specialized works that cover

> «a body of knowledge or concise explanations related to subjects, authors, papers, associations, resources, etc .; These sources **catalog, select and organize information from primary and secondary sources**.» (Faria, Pericão, 1999)

- ✓ Reference books from the different scientific areas (**handbook, textbook**) - allow familiarization with terminology related to the disciplinary area and help to form a general idea of a subject
- ✓ Encyclopedias
- ✓ Dictionaries

Scientific articles

- ✓ Are the main medium used for the formal communication of science
- ✓ They are written by scientists
- ✓ They allow researchers to communicate the results of an investigation to their peers
- ✓ They are published in journals with knowledge certification mechanisms (peer review)



Types of articles

Article OR Scientific article

Describes at first hand the results of a study of a research work.

Review article

Organizes and critically evaluates previously published studies.

Theoretical research articles

The authors present new theories based on a critical analysis of existing theories and investigations.

Rapid Communications or Letters

Smaller in size than the average article, they are a means of briefly publicizing the work in progress on a given project. The publishing process is faster. Suitable for areas where information has a short lifespan

Conference Proceedings

- ✓ Conference proceedings are publications through which the various papers/communications that were presented at a given congress or conference are published.
- ✓ It is how researchers make known to the international community **the work they are developing** and/or **make known the first results and conclusions they reached**.
- ✓ Currently, it is common for international Congresses or Conferences to submit communications through a review process.

Remote Access to Information resources

- ✓ It is possible to access all electronic resources from outside the Campus
- ✓ Access requires remote connection to the NSST network via VPN and authentication with CLIP credentials.

- ✓ VPN refers to a network (Virtual Private Networking) to which authorized remote users can connect, becoming an integral part of that network, which operates on the infrastructure of a public network such as the Internet.

- ✓ For more information and a support video at:

https://www.div-i.fct.unl.pt/servicos/vpn

Planning Your research

Search strategies and techniques

A Research project is ...

It is an extensive written work that presents the results of an investigation on a certain topic.

What is intended?

- ✓ A critical analysis, where the researcher is supposed to answer a research question or hypothesis
- ✓ For this, it is necessary to gather evidence, from various sources, to make critical analysis and/or interpretations.
- ✓ It is supposed to build a well-founded argumentative text

STAGES

- ✓ Decide which topic to address
- ✓ Formulate a clear research question/starting question that your work intends to answer (*identify the problem*)
- ✓ Review the literature on the topic under analysis
- ✓ Define a methodology
- ✓ Explain and justify the methods used
- ✓ Present the results clearly and demonstrate how they relate to the starting question/problem

How to structure academic projects

On NSST webpage, in the Student area - Academic Information, you will find the document **"Standards for formatting and presenting master's and doctoral dissertations**", which include information on the structure of theses and dissertations and their templates in Word and LaTeX.

In any academic work, **grammatical correctness, coherence, clarity and objectivity are important.**

The **information conveyed** in the document cannot be **based on opinions or speculation, it must be proved or substantiated**.

How to structure an academic report

The construction of an academic report is a process that have concrete stages, which include:

- ✓ presentation of the problem
- ✓ identification of the research question
- ✓ formulation of hypotheses
- ✓ literature review
- ✓ identification of the methodology used
- ✓ discussion of results
- ✓ conclusions
- ✓ bibliography

See IMRaD organizational structure

Define the research topic and search criteria

Define your topic by stating it as a question.

This will be your "research question".

Identify key concepts

Build your search phrase: brainstorm to clarify ideas and ask questions

Define the type of information you need, the type of sources you want:

- primary sources
- secondary sources

Consider narrowing or broadening your search by associating or decoupling related terms using Boolean operators

WHAT are you searching for?

keywords, search expressions

WHERE are you going to look ?

Resources

HOW are you going to do it ?

Research skills

After choosing your topic define your keywords

https://youtu.be/-3VyXoCA27w

https://www.youtube.com/watch?v=r6kjt2Mt_4w

Brainstorm for concepts and terms

(synonyms, broader, narrower and related terms)

https://www.youtube.com/watch?v=EBwPb7XhQuY

https://www.youtube.com/watch?v=nXNztCLYgxc

Build your on concept map

https://www.youtube.com/watch?v=1-rjC3j2rhU

Some helpful techniques

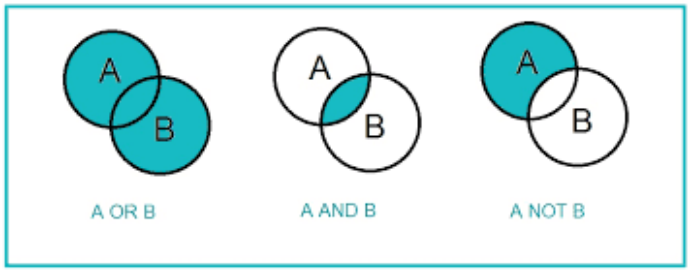
The PICO framework

The PICO framework is a model created for structuring clinical questions.
It is **used to identify the main components of a research statement**. It captures each key element of a focused question.

PICO = Patient or problem. Intervention or Interest. Comparison or Context or control. Outcome.

Build up your search expression

Boolean operators



Reading disorder OR
Dyslexia
AND
Academic performance

Truncation or wild cards

like * $? Usefull for replacing characters

Ex:

know* = know, knowing, knowledge, knows

genetic* = genetic, genetics, genetically

Quotation marks

Ex: “artificial intelligence”. The database will read it as na exact expression

Do not use acronyms!

Unless you associate them with the complete expression, so that the database understands what are you looking for, in what scientific or disciplinary areas

Ex.: AI OR “artificial intelligence”

Use of parentheses (nesting)

Ex: Privacy AND (Myspace OR Facebook)

Limiters

Date; Author; types of publication; source; and others ...

Pearling or Snowballing Or bibliographic mining

It is the act of analyzing the bibliography or reference list of articles that we have retrieved in our research and considered relevant to our study.

It aims to identify more articles, relevant to our study and that were not found in our searches.

It also refers to the analysis of citations, or articles that cited those that we identified as important for our study.

Each clue must be thoroughly analyzed.

Evaluate searches and Analyse search results

- There are several instruments created to evaluate the results of our research. Most of which were created within the health sciences, today they're used (with adaptations) in other scientific areas.

- Examples: Research Evaluation

  The Quorum checklist

  The PRISMA statement (updated in 2020)

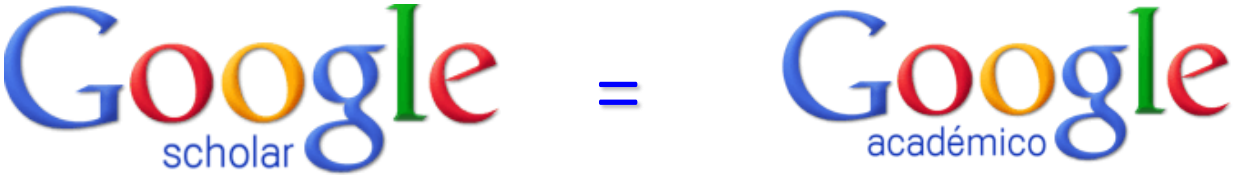
  AMSTAR (A MeaSurement Tool to Assess systematic Reviews)

Other tools for research support: **Search planners**

Why start with B-on

- ✓ It is a federated search engine that will retrieve information within the various databases it has access to
- ✓ It allows you to identify from which platform the best results are retrieved
- ✓ Allows us to “go" to 1 specific resource
- ✓ It is a multidisciplinary resource
- ✓ It is a trusted resource
- ✓ The information is current

Google: choose reliable sources



Google's smart search tool that helps you find the best academic results.

Allows you to view books, theses, articles (peer-reviewed, provided they are available in open access), school work, university journals and more...

WHERE TO START?

It's better to start with an aggregator like B-on or a Reference database

Ethical use of Information

What's plagiarism?

The act of **signing or presenting someone's work as their own** (it could be an artistic, a literary or a scientific work)

Using someone else's words or ideas and representing them as your own (a text, a photograph, an audiovisual work, a graphic or an image)

In both cases, we're talking about infringement of copyright/authors rights:

Moral rights– the right of being recognized as the author

Property rights– the right to produce, publish and sell the work

Different forms of plagiarism?

As identified in several sources, the different forms of plagiarism are:

- ✓ To copy a paper of the Internet (in full or partially)
- ✓ Using the work of a colleague and sign it as his/her own
- ✓ Buy a paper from a commercial site
- ✓ Copy and paste from different sources (whichever form)
- ✓ Saying in other words the idea of an author without mentioning the source

The Plagiarism Spectrum identifies 10 types of plagiarism based on findings from a worldwide survey of nearly 900 secondary and higher education instructors

https://www.turnitin.com/static/plagiarism-spectrum/

To use the information ethically you should :

- ✓ Know how to summarize the author's ideas
- ✓ Know how to structure an argumentative text
- ✓ Know how to cite sources and make references
- ✓ Know how to organize your bibliography (Choose and use only one style in your bibliography)

Remember to cite your sources!

How to detect plagiarism?

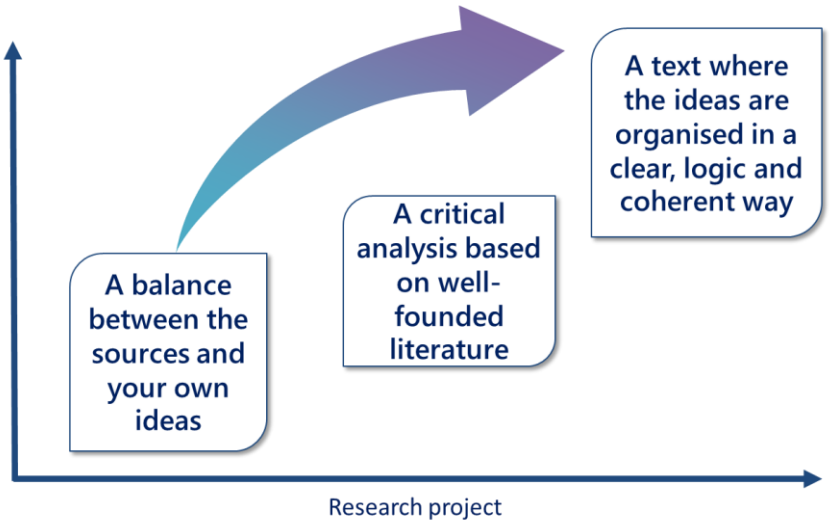
- ✓ Plag https://www.plag.pt/ (livre)
- ✓ Plagiarism combat https://www.plagiarismcombat.com/ (free)
- ✓ Safe Assign https://safeassign.blackboard.com/ (available for
- ✓ Blackboard)
- ✓ Duplichecker https://www.duplichecker.com/ (free)
- ✓ Urkund/Ouriginal https://www.urkund.com/ (paid)
- ✓ **Turnitin** http://turnitin.com/static/index.html (paid - available at NOVA University)
- ✓ Ithenticate http://www.ithenticate.com/ (paid) – used by the publishers

Google.....

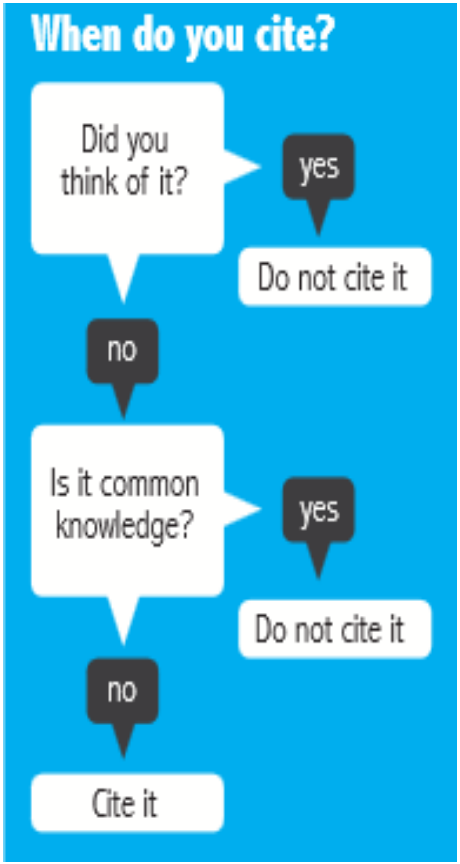
Strategies to avoid plagiarism?

- ✓ Keep track of your sources (print and electronic)
- ✓ Keep your own writing and your sources separate
- ✓ Acknowledge your sources explicitly when paraphrasing
- ✓ Don't save your citations for later

Remember your goal



WHEN AND HOW TO CITE



Harris, Robert A. The Plagiarism Handbook: Strategies for Preventing, Detecting, and Dealing with Plagiarism. Los Angeles: Pyrczak Publishing, 2001

In text citation

What are they for?

- To identify the work from which the excerpt was withdrew or an idea of others, indicating their precise location
- To support or argue an opinion

Where do you put them?

- Within a text with parenthesis
- In a footnote
- At the end of a chapter

In what form?

- **Indirect quotations / conceptual** - reproducing the ideas of others by our words - paraphrase
- **Direct quotes / formal** - faithfully transcribing the words of an author using quotes

Don't forget that the quote contribute to the argument of the text!

Citation styles

The citation styles obey 3 systems:

Author-date system, where the citation appears like this::

- ✓ (Santos, 2003),
- ✓ in the case of having two authors (Santos, Correia, 2003)
- ✓ and in the case of having more than 3 authors (Santos, et al., 2003),

of which the best known and used is the APA style

Numerical system, in which each citation is identified with a number [1] and the list of bibliographic references is compiled at the end of the work (bibliography) in order of entry of the citation in text, **of which the most known and used style is the IEEE**

There are also **mixed systems**, in which the text citation is numerical but the bibliography is ordered alphabetically by author.

Examples of mixed styles are: **Springer Lecture notes in Computer Science(sorted alphabetically)** and the **Council of Science Editors, Citation-Name (numeric sorted alphabetically)**, for example.

Generally the APA and IEEE are the most used styles,NSST is no exception, but you should always define with your supervisor the standard or style to use.

To manage automatically

There are several bibliographic management software available for free online:

Zotero

Mendeley

EndNote Basic (available upon registration with the search plataform Web of Science, to which all institutions of higher education have access)

and others....

These software automatically save the references from material available on-line, as well as files previously saved in your computer. They all have the functionality of introducing references manually through a form-oriented

zotero

EN

MENDELEY
REFERENCE
MANAGER

BIBLIOGRAPHIC MANAGEMENT SOFTWARE

- ✓ These programs allow you to enter directly into your work citations and references and to create automatically your bibliography
- ✓ They all have the possibility of integration with word processors, Microsoft Word and Open Office through plug-ins and/or Add-ins
- ✓ These software provide access to all bibliographic styles

Remember that you must keep the same bibliographic style throughout your research project

Bibliographic standards and styles

There are thousands of bibliographic styles, the differences between them occur in terms of the ordering of the elements and/or the way they are written (in full or abbreviated)

For a reference to be perceptible to the reader, the so-called essential elements of the reference must be present

It is common for each scientific area to have its own style of presenting bibliographic references.

Bibliographic standards and styles

The essential elements of any bibliographic reference are:

For Books

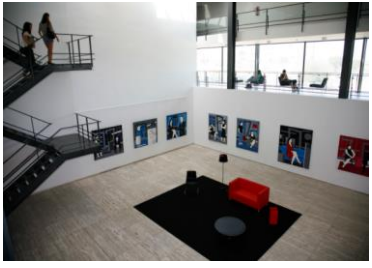
- author name
- publication date
- Title
- edition no.
- place of publication
- *editor

For jornal articles

- author name
- publication date
- article title
- Journal title
- volume, no.
- Pages XX-XX

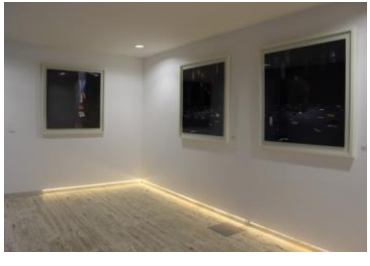
* In APA 7 , this element is not included in the reference.

Cultural spaces and activities



Exhibition room

Multipurpose Hall



Studio Room

Auditorium

Leisure room

Thanks!

You can find me at:

mrd@fct.unl.pt

Or

At the Library building