The profession of Communication Disorders was founded in earnest after the Second World War on a medical model of training, research and practice. Hence, it is not unexpected that databases focused on medical issues would be considerably useful. Two such databases are PubMed and Medline.

A. IDENTIFYING THE APPROPRIATE DATABASES – PUBMED THROUGH NCBI (THE NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION)

The National Center for Biotechnology Information (NCBI) provides an integrated approach to the use of gene and protein sequence information. It was established in 1988 as a national resource for molecular biology information. NCBI creates public databases, conducts research in computational biology, develops software tools for analyzing genome data, and disseminates biomedical information - all for the better understanding of molecular processes affecting human health and disease.

On the surface, this does not appear to be a likely source for information in Communication Disorders in general or AAC in particular. But included in this service is a public database called PubMed. This has many relevant sources for the study of AAC. Unlike many of the other databases that have to be accessed through a Provider Service paid for by the CSUN Library for the exclusive use of registered students, PubMed is a public service free to anyone who has access to the internet. It’s interface looks like this:
It also has a nice tutor at:

It is well worth looking and hearing this tutor.

Hence, PubMed above was be accessed through a Google Search, but it can also be accessed through the CSUN Library structure via the A to Z Index list, or the Communicative Disorders Library Home Page. Although it looks the same, this is a slightly different Pub Med however, only accessible to CSUN Students. The advantage of using the CSUN Library Structure is that once you have found a reference you want, there is a direct link that allows you to check whether or not it is in the CSUN Oviatt Library or the CSU Union of Libraries. One new feature under More Resources (the column to the right) is the link to the MeSH Database. This is a database for finding the structure of terms used by the U. S. Library of Medicine.
Please note there are links to an overview of PubMed and some interesting Tutorials. These are very useful. And if one plans to do a lot of research both in school and after, it would be advantageous to open a NCBI account so references and search strategies could be saved. This account is outside the CSU Library structure so it would remain in use after a student has graduated. For our purposes here, however, we will go directly to the search. PubMed like Medline has a very structured set of search terms. We can ferret these out by making a search in the MeSH database first. MeSH stands for Medical Sub Headings. If we use the search words Augmentative Alternative Communication into the MeSH database we come up with a rich array of search terms as follows:
1: Communication Aids for Disabled

Equipment that provides mentally or physically disabled persons with a means of communication. Typewriters, cathode ray tubes, computers, and speech synthesizers. The output of such aids include language signs, Morse code, and pictures.

Year introduced: 1993

Subheadings: This list includes those paired at least once with this heading in MEDLINE and may allow combinations.

- adverse effects
- classification
- economics
- ethics
- history
- psychology
- standards
- statistics
- trends

Utilization

- Restrict Search to Major Topic headings only.
- Do Not Explode this term (i.e., do not include MeSH terms found below this term in the MeSH

Entry Terms:

- Communication Aids for Handicapped
- Communication Boards
- Communication Board
- Text Telecommunication Devices
- Telecommunication Device, Text
- Telecommunication Devices, Text
- Text Telecommunication Device
- TTY Telephone
- TTY Telephones
- Text Telephone
- Text Telephones
- Telecommunications Devices for the Deaf
- TDD
- Text Telecommunication
- Telecommunication, Text
- Telecommunications, Text
- Text Telecommunications
- Augmentative and Alternative Communications Systems
- Speech Synthesizers
- Speech Synthesizer
- Synthesizer, Speech
- Synthesizers, Speech

Previous Indexing:

- Communication (1966-1979)
- Nonverbal Communication (1970-1979)

See Also:

- Speech Recognition Software

All MeSH Categories

Analytical, Diagnostic and Therapeutic Techniques and Equipment Category

Equipment and Supplies

Self-Help Devices

Communication Aids for Disabled
Selecting, from the list of search words that we obtained above, the search terms “Communication Aids for Handicapped,” we can return to our Search Page in Pub Med. Hence, we are now using MeSH terms for our search strategy in PubMed. We must also first change the Database from MeSH to PubMed.

**NCBI Search Page in PubMed Database**

In making this search, with these terms we come up with 1649 records. We could run the search again using some limits to reduce the number, but the second reference seems very interesting in terms of AAC so we’ll go with that..
Clicking on the second record, we get a **full citation** having an abstract of the article, and related links. There are also some MeSH terms available for further research strategies.
Of most importance, however is the **Informa** Link in the upper right hand corner, which provides an access to the **Full Text** of the article. Clicking on the link gives us the Informa page which looks like this:

In the right hand column (and again below not shown here) are links to Full Text PDF files which will display the article in it’s entirety as shown below.
Research doesn’t get any better than this.

B. IDENTIFYING THE APPROPRIATE DATABASES – MEDLINE THROUGH NCBI (THE NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION)

As described online, “MEDLINE® is the premier database of the U.S. National Library of Medicine (NLM). It contains over 12 million records of journal articles in all areas of the life sciences, with particular emphasis on biomedicine. MEDLINE records are created by NLM and collaborating partners. Full records include complete
bibliographic details and author abstracts. In addition, subject specialists at the National Library of Medicine assign controlled terms from the MeSH Thesaurus that add value to the database and aid in retrieval.”

To those of us who can remember a time when computers didn’t exist (referred to sometimes as the Crustacean Period by archeologists) the big reference source in the Library for Communication Disorders & Sciences was Medicus Index. It existed in volumes of bound books in the Reference Room. These have all been replaced now by computers and a software database called, Medline.

The Provider for Medline in the CSUN Library is the *ISI Web of Knowledge (Thomas Corporation)*. This database can be accessed through the Library A – Z Index listing or the Communication Disorders Library Home page. In regards to the former you would look under “M” for **MEDLINE (ISI)**, rather than “I” for **ISI (MEDLINE)**.

<table>
<thead>
<tr>
<th>MEDLINE (ISI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indexes, abstracts more than 4,600 medical journals, 1950-</td>
</tr>
</tbody>
</table>

The ISI Search Page for Medline looks like the following:

**The Search Page of Medline in ISI Web of Knowledge**
Using the truncated search terms “communicat* and aid** disable*”, we obtain a results with 1686 records
The Results Page of Medline in ISI Web of Knowledge--
References

We could and should, of course, have used the Advanced Search Options or the Refine Results options to limit and focus the search and eliminate irrelevant references from the results.

We can among other things obtain a full text record by clicking on the Title Link, for example, “Enhancing AAC Connections etc.” This gives us a wealth of information.

Full Text Citation in Medline via ISI Web of Knowledge
Included here is the typical information found in a full citation, plus some more useful MeSH terms, and options to save, email or print the citation. Also included is a “Find Text” option. This is important because it not only give us an opportunity to format the citation in an APA style (under More Options) but it also gives us information about Full Text options and/or the availability of the reference in the CSU Library System.
We can see that there are two Full Text sources for this reference, and that it is also available in the Oviatt (CSUN) Library. Our work is done!

Without a doubt, PubMed and Medline are very useful databases for research in Communication Disorders and Sciences, but there is an even more powerful tool, which shortens considerably the effort and time we must spend in locating references and their full text. That tool is Communication Disorders & Sciences Multisearch.

D. IDENTIFYING THE APPROPRIATE DATABASES – COMMUNICATION DISORDERS MULTISEARCH.

   Confucius said, “If you want to catch more butterflies, use a bigger net!” Or, maybe it was my entomology professor at the U. of Hawaii who suggested that, or maybe my kindergarten teacher at Leilahua elementary. Anyway, for Communicative Disorders Students, Multisearch is the BIGGER NET.

   This database can only be accessed from the Communication Disorders Library Home Page as the first item in the list under the
heading Databases (actually for some strange reason there are two Database headings so use the second one here)…

**Communicative Disorders Library Home Page**

[http://library.csun.edu/mhenry/bibcd.html](http://library.csun.edu/mhenry/bibcd.html)

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You can see the list of databases included in MultIssearch although we will only be able to search 10 at a time. Clicking on any one in this list will give us the individual Provider interface with all its specific options. Clicking on the Communicative Disorders Multisearch link will give us the Search Page for including up to 10 databases. In this case, however there will be a generic interface format for all, which may lack some of the nuances of the individual Provider interface. But the efficiency gained in most cases far outweighs this disadvantage.

Although it is not necessary to log in to do a search, it is advantageous to do so in case we wish to save any of the references we have located. The Log in link is in the upper right corner of the screen. We log in using our CSUN ID and Password just as if we were logging into the Portal.
Remote access to this database is restricted to current CSUN students, faculty, and staff. Please enter your CSUN User ID and password in the fields provided below:

**CSUN User ID:** [Enter]

**Password:** [Enter]

[Submit]  [Clear]
Communication Disorders + Sciences Multisearch

Search across multiple databases relating to Communication Disorders + Sciences. You may search up to 10 databases simultaneously.

Search all fields for

Aac and communication

GO

More Options

My Account
- Log-in
- My Saved Records
- My Saved Databases

Most Useful
- PubMed
- CINAHL Plus with Full Text (EBSCO)
- ERIC (CSA)
- Oviatt Library Catalog

Also Useful
- PsycINFO (EBSCO)
- Academic Search Elite (EBSCO)
- Wilson OmniFile Full Text Mega
- INSPEC (Engineering Village)
- Cochrane Library (Wiley)
- Health Reference Center (Gale)
- ScienceDirect (Elsevier)
- Ovid Journals
- MEDLINE (ISI)
- MEDLINE (Ovid)
- ERIC (CSA)
- Linguistics and Language Behavior Abstracts (LLBA)
- Communication & Mass Media (EBSCO)
- Wiley Interscience
- Education Full Text (Wilson)
- NetLibrary
- WorldCat
- Google Book Search
- Gale Virtual Reference Library
Once you have logged in you will be at the Search Page, which is where we were before we logged in.

The “big net” here is the capability of Multisearch to cover TEN databases in one search. These databases, more over, are among the most relevant for the field of Communicative Disorders, and hence AAC.

Of course, you can select less than 10 databases to search. Regardless of how many you select, the format of the results page and beyond will be the same for all databases, regardless of the Provider they typically use. For example using the first Ten databases and the search strategy “AAC and communication,” we get a results page with 149 citations. On the right side of the monitor is the “hit” rate for each of the ten databases. You can see whom the “heavy hitters are.

**Search Results for Communication Disorders Multisearch**
(Right side of the monitor)
On the left side of the monitor are the records. The entire list of 149 citations is presented in the order of their relevance (please see below).

**Search Results for Communication Disorders Multisearch**
*(Left side of the monitor)*

<table>
<thead>
<tr>
<th>Top Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results 1-10 of 149</td>
</tr>
</tbody>
</table>

**A Study of Literacy in Three Adults with Moderate-to-severe Intellectual Impairments Who Use Augmentative and Alternative Communication Systems**

**Dissertation**
This study was undertaken to explore (a) the everyday literacies of three adults with moderate-to-severe intellectual impairment (M/SII) who use augmentative and alternative communication systems (AAC); and (b) the nature of the conditions under which their communication goals were successfully addr...  
**By:** Feeney, James J  
**Year:** 2009  
**Published in:** Dissertation Abstracts International Section A: Humanities and Social Sciences  

[Find Text](#) Check for availability  
[Save this record](#)  

**A Systematic Review of the Effectiveness of Nurse Communication with Patients with Complex Communication Needs with a Focus on the Use of Augmentative and Alternative Communication**

**Article Peer Reviewed**  
Aims and objectives. To systematically review the research regarding communication between nurses and patients with complex communication needs (CCN). The research was reviewed with respect to the following themes: (a) the importance of communication; (b) the barriers to effective communication; (c...  
**By:** Finke, Erin H  
**Year:** 2008  

But we can also get these databases ordered, if we wish, within each individual database by clicking on the link (name) of the Database in the list to the right; or the by the Dates).
Limit top results by:

topic

- **AAC devices** (14)
- Spectrum Disorders (14)
- Picture (12)
- Review (10)
- Generating (8)
- Intellectual disabilities (7)
- Aged children (7)
- Speech-Language Pathologists (6)
- Primary (5)
- Practices Related (4)
- In augmentative and alternative communication (4)
- Data (3)
- Natural speech (3)
- There a mentoring role for adult (3)
- Conditions (3)
- Explore The Experiences (3)
- Cerebral palsy (3)
- Teachers Of Students (3)
- Pragmatic (3)

date

- 2010 (10)
- 2009 (105)
- 2008 (27)
- 2007 (6)
We can, of course, get the full text record, use the “Find Text” link and check the availability in the CSUN Library as we have done in the past for other databases.

If there are any references we wish to save for an extended period of time we can click on the “save this record” link. This will only work, of course, if we have logged in.

Then later, if we wish to review the records we have saved we can click on the “My Saved Records” which is adjacent to the Log-in (now Log out) link.
There we will have access to all our saved records. There are a log of additional options here like Exporting records or downloading them.

But for now we will just Log-out.

There is much more to be learned about the library strategies both in general and in particular for selected databases. And it is all available in the form of Tutorials both in the databases themselves and in the Communication Disorders Library Home Page. The more one uses these databases the more simple the procedures will appear to become. For any obstacles, which seem insurmountable, the final resource is to email our Librarian, Marcia Henry, who will answer all your questions.