> URLs in this document have been updated. Links enclosed in **{curly brackets}** have been changed. If a replacement link was located, the new URL was added and the link is active; if a new site could not be identified, the broken link was removed.

Refereed Article

Library Instruction in Communication Disorders: Which Databases Should Be Prioritized?

Adelia Grabowsky
Health Sciences Librarian
RBD Library
Auburn University
Auburn, Alabama
abg0011@auburn.edu

Abstract

The field of communication disorders encompasses the health science disciplines of both speech-language pathology and audiology. Pertinent literature for communication disorders can be found in a number of databases. Librarians providing information literacy instruction may not have the time to cover more than a few resources. This study develops a list of commonly recommended databases and a list of core journals in communication disorders and then looks at indexing of the journals to discover which databases should be prioritized in library sessions.

Introduction

Every instructor probably knows it, that glazed-over look that says, "You've lost me, I'm done, I've taken in as much as I can," often the result of a librarian trying to cram too much information into a "one-shot," 50 to 75 minute session. This can be especially true in disciplines such as communication disorders for which multiple resources are commonly suggested. This study seeks to first determine which databases are most commonly recommended for students in communication disorders, and second to compare indexing of core journals in those databases to determine which should be prioritized when teaching "one-shot" sessions.

Background

Communication disorders are defined as "impairments in the ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems"; they can be sub-classed as speech, language, hearing, or central auditory processing disorders (Ad Hoc Committee on Service Delivery in the Schools 1993). Audiologists provide "comprehensive diagnostic and treatment/rehabilitative services for auditory, vestibular, and related impairments" (Ad Hoc Committee on Scope of Practice in Audiology 2004) while speech-language pathologists "engage in clinical services, prevention, advocacy, education, administration, and research in the areas of communication and swallowing across the life

span" ([Ad Hoc Committee on the Scope of Practice in Speech-Language Pathology 2007](#)). Some academic institutions offer programs in either audiology or speech-language pathology while others have both under the umbrella of communication disorders or speech/language/hearing sciences. Several authors emphasize the need for students in communication disorders to have effective information literacy skills including a familiarity with interfaces and content of databases, but each of them list multiple databases to consider ([Goldstein 2008](#); [Guo, Bain, & Willer 2008](#); [Nail-Chiwetalu & Ratner 2007](#)). A lengthy, multi-class program might be able to provide instruction in searching most of these databases but many librarians are limited to one session with students. Although information literacy instruction should ideally focus on skills which are transferable from one database to another, the listed databases often have very different interfaces, filters or limits, and controlled vocabularies. It seems reasonable to assume that students are more likely to return to databases with which they are familiar, so it seems desirable to introduce students to databases which offer the most complete access to content in their area. This study compares database coverage for journals important to audiology, speech-language pathology, and the combined area of communication disorders.

Literature Review

LibGuides (http://www.springshare.com/libguides/) is a content management system which many libraries use to collate and share information with patrons, but LibGuides have also been used to study the collections/resources of other institutions. Stankus and Parker ([2012](#)) surveyed Nursing LibGuides from 50 institutions to discover differences and commonalities, while Metcalf ([2013](#)) mined sociology and sociology/anthropology LibGuides for data about recommended reference sources and databases to use in benchmarking peer institutions. This study will use a method similar to that of Metcalf ([2013](#)) to determine the most commonly recommended databases for communication disorders.

Slater ([1997](#)) identified both core journals and indexing/abstracting services for the field of speech language pathology as part of the "Mapping the Literature of Allied Health" project conducted by the Medical Library Association Nursing and Allied Health Resources Section. Citation analysis was used to determine 41 core journals and then six indexing/abstracting services were scanned to determine coverage of the listed citations. None of the indexing/abstracting services provided coverage of all 7,462 identified citations; the most extensive coverage was found in Current Contents (all sections) followed by combined searching of Medline and PsycINFO. No similar projects have been completed in the field of audiology or in the broader combined area of communication disorders ([Nursing and Allied Health Resources Section ND](#)). Black ([2001](#)) used citation analysis to develop a core collection of journals for communication disorders but did not examine abstracting/indexing of the resulting titles. Eleven years later, he updated the list ([2012](#)) finding that the core journals in communication disorders remained stable, however, the ordering of some journals had shifted significantly and again he did not include information about indexing/abstracting coverage. Shpilko ([2003](#)) reviewed journal holdings at colleges and universities which offered communication disorders as a major field of study and used a list of criteria to narrow to 40 basic journals in communication disorders. Information about indexing/abstracting was supplied for each of the 40 titles but no attempt was made to determine completeness of coverage by any one database. This study will seek to determine coverage of core journals by the most commonly recommended databases in the overarching field of communication disorders.

Methods

U.S. News and World Report graduate school rankings for audiology and speech-language pathology (http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools) were used to create a merged list of nationally ranked schools in communication disorders, beginning with the top ranked audiology school and then alternating between lists. Although the U.S. News rankings could be considered somewhat subjective, they were deemed sufficient to obtain a sample of nationally known programs.

LibGuides were chosen as a means to determine which databases were recommended by subject specialists in communication disorders because they sponsor a community site,

(http://libguides.com/community.php?m=i&ref=libguides.com) which can be searched to discover if an institution uses LibGuides, and also because they provide an efficient way to search a library's guides by keyword and are generally easy to navigate. The LibGuides community site was searched to determine if schools on the merged list used LibGuides and then the library web site of each school with LibGuides was searched for guides that contained the following words or phrases: communication science disorders, communication disorders, speech pathology, speech hearing science, speech language hearing, speech language pathology, or audiology. Identified LibGuides were examined to determine recommended databases for audiology, speech language pathology and/or communication disorders.

The second part of the study sought to establish a list of core journals in communication disorders. Three sources were used to create a list of core journals: Journal Citation Reports (JCR), SCImago Journal & Country Rank (SJR), and Google Scholar Top Publications (GSTP). All three use citations to create lists of high impact journals in different subject categories but differ in how the lists are created. JCR is a licensed database associated with Thomson Reuters' Web of Science Database (WOS). It tabulates and aggregates citation and article counts for approximately 10,500 WOS journals to provide the "most frequently cited journals in a field, hottest journals in a field and highest impact journals in a field" (Thomson-Reuters 2012). SJR is a free resource associated with Elsevier's Scopus database. Scopus provides a larger journal source base for SJR to use, but since it originated in 1996, it offers a shorter time period of citation review (Jacsó 2010). GSTP is associated with Google Scholar and is based on a journal's h5-index. It covers articles published between 2009 and 2013 (Google Scholar N.D.). This study included the top 20 journals from the 2013 JCR category of audiology & speech-language pathology, the 2013 SJR subject area of health professions -- subcategory of speech and hearing, and the 2014 GSTP subject area of health & medical sciences -- subcategory of audiology, speech & language pathology.

Results

There were 10 schools which appeared within the top 20 of either the audiology or speech-language pathology lists from U.S. News and World Report and which also had LibGuides recommending one or more databases to students (see Table 1).

Table 1: Top 20 Audiology and/or Speech Language Pathology Programs With Communication Disorders LibGuides

University of Iowa
University of North Carolina - Chapel Hill
University of Washington
University of Texas - Dallas
Northwestern University
Purdue
University of Florida
University of South Florida
Arizona State University
University of Maryland - College Park

There were 18 databases (both licensed and open access) listed on the examined LibGuides. Mentions of Medline (through Ovid or EBSCO) and PubMed were combined into one Medline/PubMed category. Databases mentioned by fewer than half the schools were excluded. The remaining six databases are listed in Table 2. Only Medline/PubMed and Linguistics and Language Behavior Abstracts (LLBA) were listed by all 10 schools.

Table 2: Databases Listed by at least eight schools

Database	Number of

	Schools Listing
PubMed/Medline	10
LLBA (Linguistics and Language Behavior Abstracts)	10
ERIC	9
PsycINFO	9
Web of Science/Web of Knowledge	9
CINAHL	8

Although the top 20 journals from each of the three citation sources were included, there was some overlap resulting in a core list of 33 titles (see Table 3). Eight titles appeared on all three lists, 11 appeared on two lists, and 14 were unique to one citation source list. JCR had the most unique titles with six; SJR and GSTP had four unique titles each. Black ([2012](#)) and Slater ([1997](#)) used a different method to generate more extensive core title lists for communication disorders and speech language pathology respectively. They began with a few core journals and tabulated citations of all articles within the journals during a specific time period. Their core lists include titles outside the subject area of communication disorders including general titles such as *Science* and *Lancet* and titles from related areas such as psychology, neurology, and child development. The list developed in this study includes 38 percent of Slater's titles and 25 percent of Black's titles and also includes seven titles which do not appear on either of the previous lists ([Black 2012](#); [Slater 1997](#)).

Table 3: List of Core Journals with Citation Source Rankings

Journal Title	Journal Citation Reports (JCR) ranking	Google Scholar Top Publications (GSTP) ranking	SJR SCImago Journal Ranking
American Annals of the Deaf			17
American Journal of Audiology	18	17	16
American Journal of Speech-language pathology	6	9	6
Annals of Dyslexia			5
Aphasiology		7	
Audiology and Neuro-otology	5		
Augmentative and Alternative Communication	14		
Brain and Language	1		1
Clinical Linguistics & Phonetics	20	15	
Cochlear Implants International		16	
Communication Disorders Quarterly		20	18
Dysphagia			13
Ear and Hearing	3	2	2
Folia Phoniatrica et Logopaedica		14	
Hearing Research	2		

International Journal of Audiology	11	4	
International Journal of Language & Communication Disorders	13	5	15
International Journal of Speech-Language Pathology	12	13	
Journal of Communication Disorders	9	10	10
Journal of Fluency Disorders	17	12	12
Journal of Neurolinguistics		11	
Journal of Phonetics			8
Journal of Speech Language and Hearing Research	4	1	3
Journal of the Acoustical Society of America	8		
Journal of the American Academy of Audiology	7	8	4
Journal of Voice		3	14
Language and Speech	16		11
Language, Speech, and Hearing Services in Schools		6	7
Logopedics Phoniatrics Vocology	19		
Noise & Health	10		
Seminars in Speech and Language		19	19
Topics in Language Disorders		18	20
Trends in Amplification [now Trends in Hearing]	15		9

Once the core journal list was created, each of the six identified databases was checked for indexing (see Table 4). Current journals indexed were obtained from publisher lists and indexing had to be current in order for the journal to be included. Web of Science includes several different databases, indexing was examined for Science Citation Index Expanded and Social Science Citation Index and combined for the WOS column in Table 4.

Table 4: Indexing of Journals in Selected Databases

Journal Title	ERIC	PubMed/ Medline	LLBA*	CINAHL	PsycINFO	WOS**
American Annals of the Deaf	1	1	1	1	1	1
American Journal of Audiology		1	1	1	1	1
American Journal of Speech-language pathology		1	1	1	1	1
Annals of Dyslexia	1	1	1		1	1
Aphasiology			1	1	1	1
Audiology and Neuro-otology		1			1	1
Augmentative and Alternative		1	1	1	1	1

Communication						
Brain and Language		1	1	1	1	1
Clinical Linguistics & Phonetics		1	1	1	1	1
Cochlear Implants International		1	1		1	
Communication Disorders Quarterly	1		1	1	1	1
Dysphagia		1		1		1
Ear and Hearing		1		1		1
Folia Phoniatrica et Logopaedica		1	1	1	1	1
Hearing Research		1			1	1
International Journal of Audiology		1		1	1	1
International Journal of Language & Communication Disorders	1	1		1	1	1
International Journal of Speech-Language Pathology		1	1	1	1	1
Journal of Communication Disorders	1	1	1	1	1	1
Journal of Fluency Disorders	1	1	1	1	1	1
Journal of Neurolinguistics			1		1	1
Journal of Phonetics			1		1	1
Journal of Speech Language and Hearing Research	1	1	1	1	1	1
Journal of the Acoustical Society of America		1	1			1
Journal of the American Academy of Audiology		1		1	1	1
Journal of Voice		1	1	1	1	1
Language and Speech		1	1	1	1	1
Language, Speech, and Hearing Services in Schools	1	1		1	1	1
Logopedics Phoniatrics Vocology		1	1	1		1
Noise & Health		1				1
Seminars in Speech and Language		1	1	1	1	1
Topics in Language Disorders	1		1	1	1	1
Trends in Amplification [now Trends in Hearing]		1		1		1
Total number of journals indexed	9	28	23	25	27	32
Percentage of journals indexed	27%	85%	70%	76%	82%	97%

*LLBA: Linguistics and Language Behavior Abstracts
**WOS: Web of Science (includes both the Science Citation Index Expanded and the Social Sciences Citation Index

Discussion

This study used three journal ranking sources to generate a list of 33 core journal titles in the field of communication disorders and used LibGuides of top ranked programs to develop a list of recommended databases. Five of the six identified databases indexed at least 70 percent of journals from the core list, but no single database indexed all 33 titles. Web of Science included the most titles with 32 while PubMed/Medline was second with 28 journals. There were several pairs of databases which together index all 33 core titles, including:

1. PubMed/Medline and PsycINFO
2. PubMed/Medline and LLBA
3. PubMed/Medline and WOS
4. WOS and PsycINFO
5. WOS and LLBA

Librarians could consider providing print or virtual information (handouts, subject guides, etc.) to students about all of the recommended databases including areas of coverage, controlled vocabularies, filters, and search tips but focus limited instruction time on one of the recommended pairs of databases. Current institutional availability of databases and a program's particular foci will be important considerations in deciding which pair to include in an instruction session. Other considerations include the usefulness of a database's controlled vocabulary, filters, and limits as well as the database's availability after institutional affiliation ends.

Limitations

One limitation of this study is that it focused on creating a core list of journals in the general subject area of communication disorders. Audiology and speech language pathology programs may emphasize particular areas or subfields of study and those areas may be better represented in specific databases. This study also did not consider journals from related subject areas such as psychology and child development. Including additional journals from closely related fields could change the percentage of journals indexed in each database and the recommended pairings.

Another limitation is that this study only included database recommendations from top ranked schools currently using LibGuides. It would also be possible to examine library web sites of all top ranked schools to determine databases recommended by any means and that method could produce different results.

Conclusion

A multi-session library instruction class might be able to cover the use of most or all of the six identified databases but many librarians are limited to one session with students and need to restrict the number of new resources taught. This study found several database groupings which offer indexing for 33 core journals in the area of communication disorders. Librarians can provide virtual or print information about all recommended databases but use information from this study together with institution-specific factors to decide which databases to prioritize in face-to-face instruction sessions for speech-language pathology and audiology students.

References

Ad Hoc Committee on Scope of Practice in Audiology. 2004. *Scope of practice in audiology*. American Speech-Language-Hearing Association. doi:10.1044/policy.SP2004-00192

Ad Hoc Committee on Service Delivery in the Schools. 1993. *Definitions of communication disorders and variations*. American Speech-Language-Hearing Association. doi:10.1044/policy.RP1993-00208

Ad Hoc Committee on the Scope of Practice in Speech-Language Pathology. 2007. *Scope of practice in speech-language pathology*. American Speech-Language-Hearing Association. doi:10.1044/policy.SP2007-00283

Black, S. 2001. Using citation analysis to pursue a core collection of journals for communication disorders. *Library Resources and Technical Services* 45(1): 3-9. Retrieved from {https://journals.ala.org/index.php/lrts/article/view/5238/6367}

Black, S. 2012. How much do core journals change over a decade? *Library Resources and Technical Services* 56(2):80-93. DOI: 10.5860/lrts.56n2.80

Goldstein, B.A. 2008. Integration of evidence-based practice into the university clinic. *Topics in Language Disorders* 28(3):200-211. doi:10.1097/01.TLD.0000333596.07598.f1

Google Scholar. [Internet]. [Retrieved November 7, 2014]. Google Scholar Metrics. Available from http://scholar.google.com/intl/en/scholar/metrics.html#coverage

Guo, R., Bain, B.A., & Willer, J. 2008. Results of an assessment of information needs among speech-language pathologists and audiologists in Idaho. *Journal of the Medical Library Association: JMLA* 96(2):138-144. doi:10.3163/1536-5050.96.2.138

Jacsó, P. 2010. Comparison of journal impact rankings in the SCImago Journal & Country Rank and the Journal Citation Reports databases. *Online Information Review* 34(4):642-657. doi:10.1108/14684521011073034

Metcalf, S. 2013. Good stewards in trying times: Benchmarking peer collections of sociology reference sources using LibGuides. *Reference Librarian* 54(2):134-142. doi:10.1080/02763877.2013.755423

Nail-chiwetalu, B.J. & Ratner, N.B. 2006. Information literacy for speech-language pathologists: A key to evidence-based practice. *Language, Speech, and Hearing Services in Schools*, 37: 157-167.

Nail-Chiwetalu, B. & Ratner, N.B. 2007. An assessment of the information-seeking abilities and needs of practicing speech-language pathologists. *Journal of the Medical Library Association JMLA* 95(2): 182-188. doi:10.3163/1536-5050.95.2.182

Nursing and Allied Health Resources Section. [Internet]. [Retrieved January 13, 2015]. Project Publications. Available from http://nahrs.mlanet.org/home/projpubs

Shpilko, I. 2003. An overview of the journal literature on communication disorders. *Collection Building* 22(3): 102-119. doi:10.1108/01604950310484438

Slater, L.G. 1997. Mapping the literature of speech-language pathology. *Bulletin of the Medical Library Association* 85(3): 297-302. Retrieved from http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=226275&tool=pmcentrez&rendertype=abstract

Stankus, T. & Parker, M.A. 2012. The anatomy of nursing LibGuides. *Science & Technology Libraries* 31(2): 242-255. doi:10.1080/0194262X.2012.678222

Thomson-Reuters. 2012. Journal Citation Reports - Quick reference card. [Internet]. [Retrieved November 07, 2014]. Available from http://wokinfo.com/media/pdf/qrc/jcrqrc.pdf