

June 2012, Adult Hearing Screening Conference, Lake Como, Italy

Dr Google: Quality and readability of English language Internet information on hearing impairment and hearing aids



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Searching the Internet for health information

Common

Influential



Variable quality
and readability

Aim

Assess the quality and readability of Internet information on hearing impairment and hearing aids

1. Search for websites adults with hearing impairment and their significant others are likely to find when searching for information on the Internet
2. Evaluate their quality and readability

Methods

Define language(s) and search engine(s)

English

Google

Design search: Keywords from panel of 12 audiology experts

deaf

deafness

hard of hearing

hearing

hearing aids

hearing difficulties

hearing loss

hearing problems

~~*hearing AND aids*~~
~~*“hearing aids”*~~

Methods

**2 keywords
pairs**

hearing loss
hearing aids

**5 regional
search engines**



**Top
10 websites**

100 websites

**Removal of
duplicate
websites**

66 websites

Measures (N = 66 websites)

Origin

- Commercial
- Non-profit organisation
- Government

Date of last update

- 0-6 months
- >6-18 months
- >18 months
- Unspecified

Quality

DISCERN

Readability

Flesch-Kincaid Grade Level

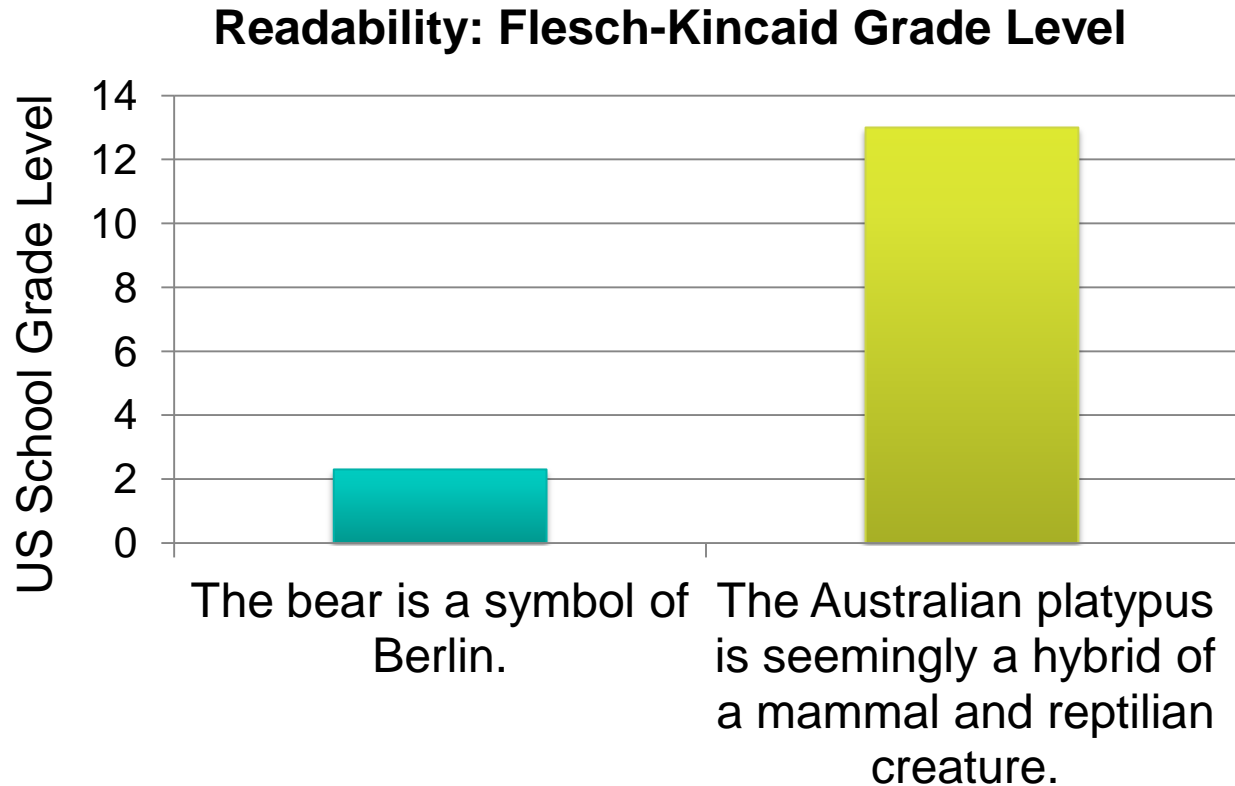
Quality: DISCERN

For consumer health information on treatment choices

1. Are the aims clear?
2. Are the aims achieved?
3. Is it relevant?
4. Is it clear what sources of information were used?
5. Is it clear when the information used or reported was published?
6. Is it balanced and unbiased?
7. Does it provide additional sources of support and information?
8. Does it refer to areas of uncertainty?
9. Does it describe how each treatment works?
10. Does it describe the benefits of each treatment?
11. Does it describe the risks of each treatment?
12. Does it describe what would happen if no treatment is used?
13. Does it describe how the treatment choices affect overall quality of life?
14. Is it clear that there may be more than one possible treatment choice?
15. Does it provide support for shared decision-making?

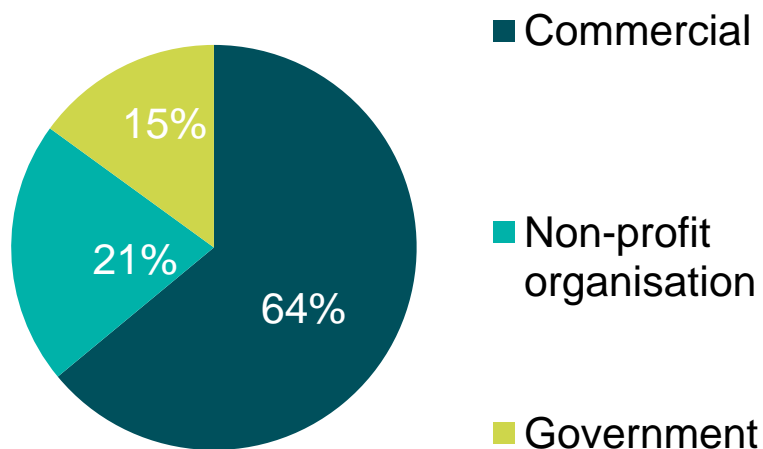
Readability: Flesch-Kincaid Grade Level

Word length and sentence length

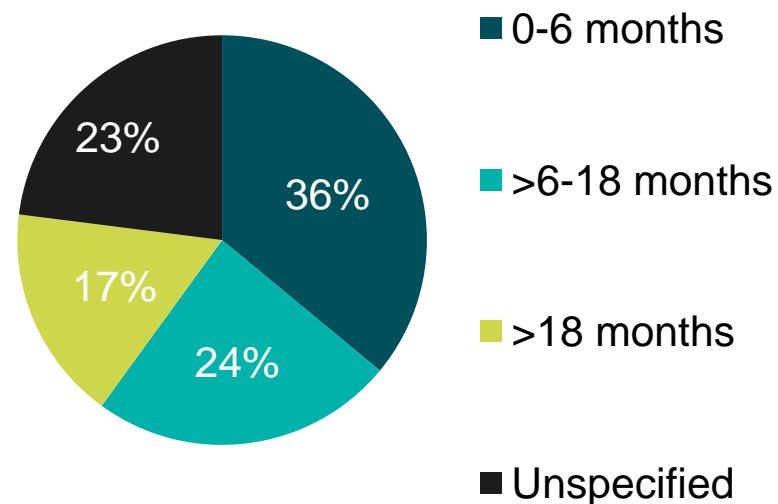


Origin and date of last update

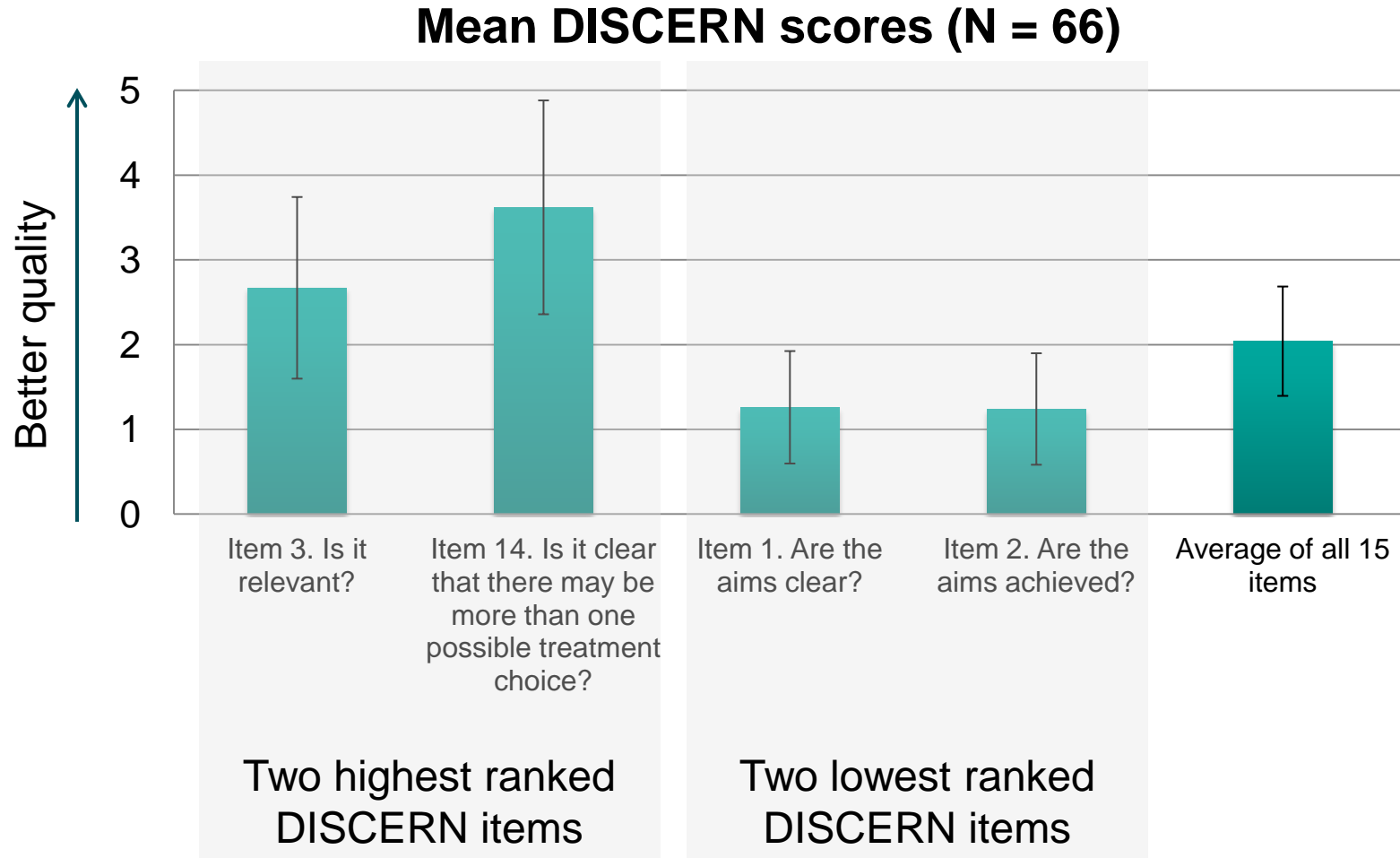
Origin (N = 66)



Date of last update (N = 66)

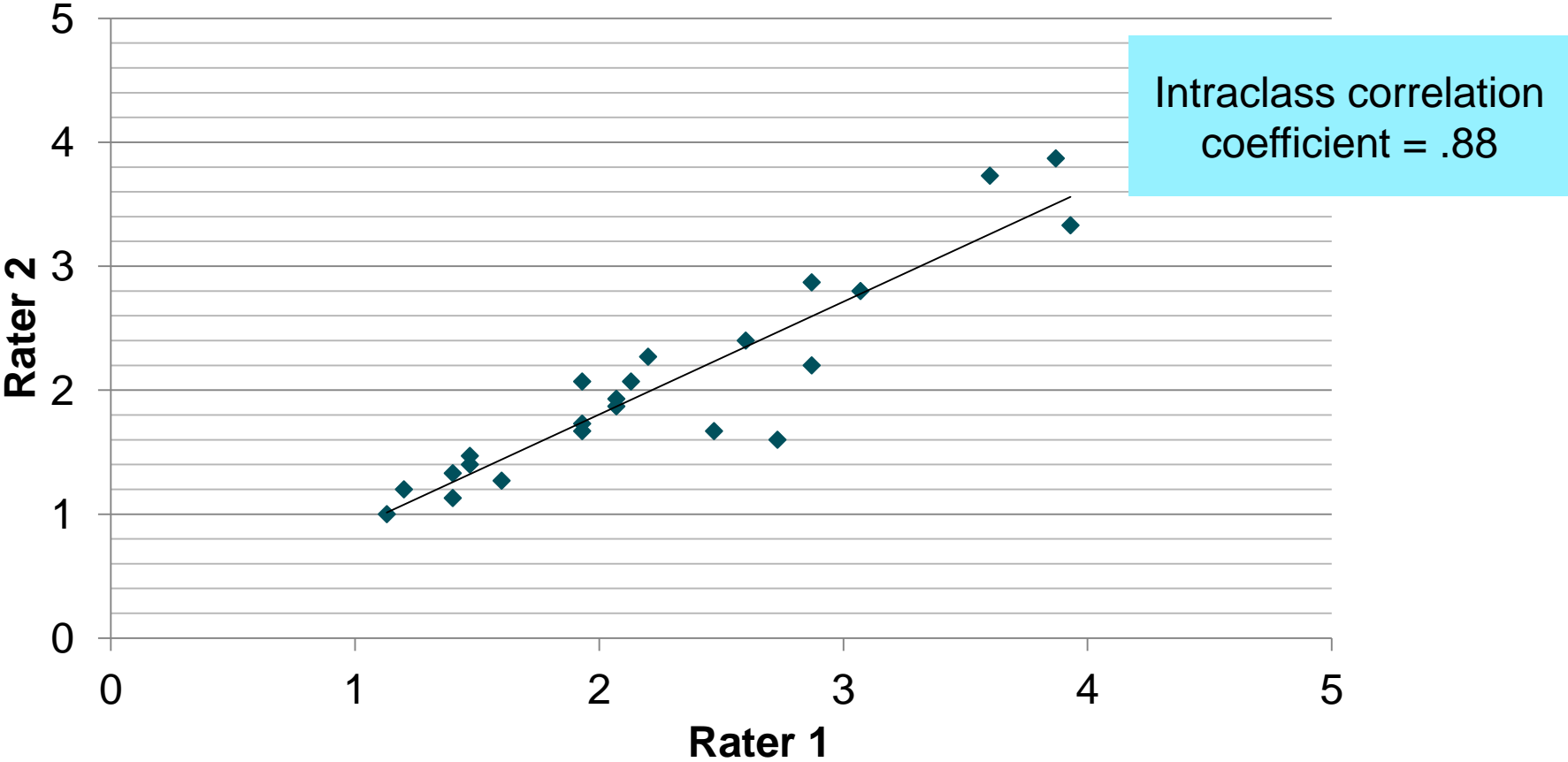


Quality: DISCERN scores



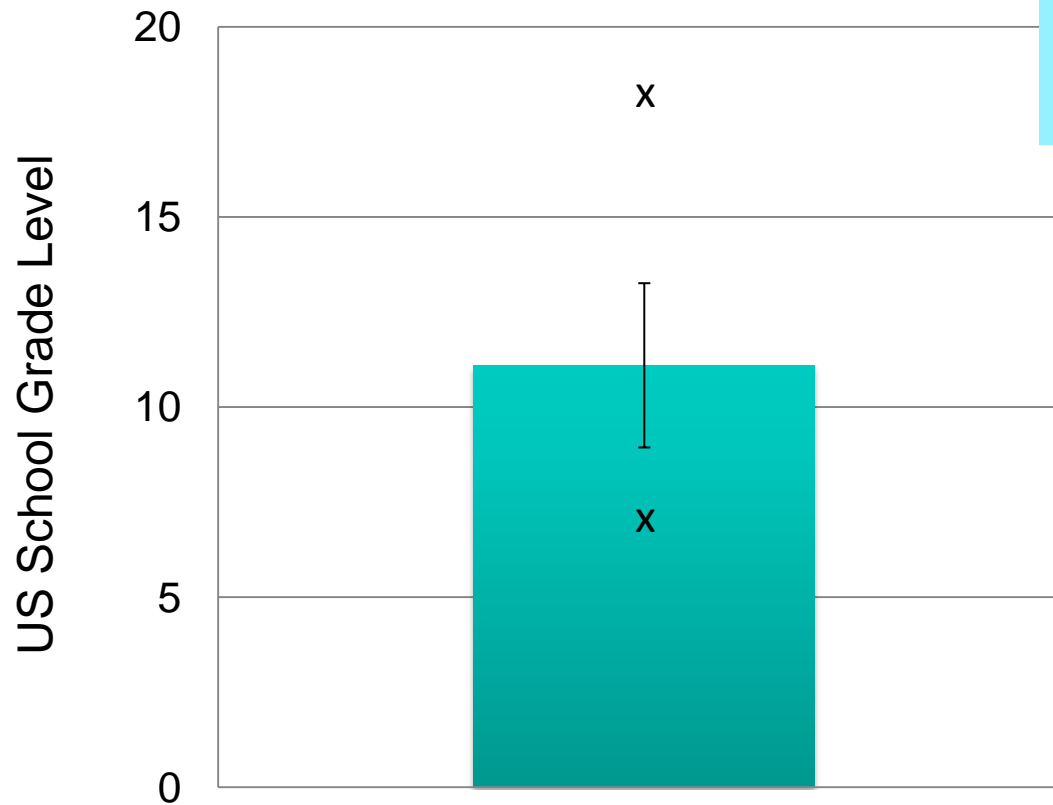
DISCERN scores: Inter-rater reliability

DISCERN scores inter-rater reliability (n = 23)



Readability: Flesch-Kincaid Grade Level scores

Mean Flesch-Kincaid Grade Level scores (N = 66)



No relationship between readability and other measures.

x = range

Star websites



Top third for quality
(DISCERN)

Top third for readability
(Flesch-Kincaid Grade Level)

www.hearingloss.org

www.hiddenhearing.co.uk

www.listenupcanada.com

www.mayoclinic.com/health/hearing-loss/DS00172

www.naturalhearing.co.uk

[//chha.ca](http://chha.ca)

[//en.wikipedia.org/wiki/Hearing_aid](http://en.wikipedia.org/wiki/Hearing_aid)

[//nihseniorhealth.gov/hearingloss](http://nihseniorhealth.gov/hearingloss)

[//speechhearingaid.com/speechhearingaid/hearing-aids.html](http://speechhearingaid.com/speechhearingaid/hearing-aids.html)

Implications

Star websites and **quality criteria** can help web developers, clinicians, and clients

Average **readability** level **difficult**

Websites in this study **less readable** than hearing aid instruction guides

To find out more



Laplante-Lévesque A, Brännström KJ, Andersson G & Lunner T. (2012).
Quality and readability of English-language internet information
for adults with hearing impairment and their significant others.
International Journal of Audiology, 51, 618-626.

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