Teachers' Voice Use in Teaching Environments: A Field Study Using Ambulatory Phonation Monitor - DTU Orbit (09/01/2019)

Objectives: This case-control designed field study examines the vocal behavior in teachers with self-estimated voice problems (VP) and their age- and school-matched voice healthy (VH) colleagues. It was hypothesized that teachers with and teachers without VP use their voices differently regarding fundamental frequency, sound pressure level (SPL), and in relation to the background noise. Methods: Teachers with self-estimated VP (n=14; two males and 12 females) were age and gender matched to VH school colleagues (n=14; two males and 12 females). The subjects, recruited from an earlier study, had been examined in laryngeal, vocal, hearing, and psychosocial aspects. The fundamental frequency, SPL, and phonation time were recorded with an Ambulatory Phonation Monitor during one representative workday. The teachers reported their activities in a structured diary. The SPL (including teachers' and students' activity and ambient noise) was recorded with a sound level meter; the room temperature and air quality were measured simultaneously. The acoustic properties of the empty classrooms were measured. Results: Teachers with VP behaved vocally different from their VH peers, in particular during teaching sessions. The phonation time was significantly higher in the group with VP, and the number of vibratory cycles differed between the female teachers. The F0 pattern, related to the vocal SPL and room acoustics, differed between the groups. Conclusion: The results suggest a different vocal behavior in subjects with subjective VP and a higher vocal load with fewer possibilities for vocal recovery.

General information
State: Published
Organisations: Acoustic Technology, Department of Electrical Engineering, Lund University Hospital
Contributors: Lyberg Ahlander, V., Pelegrin Garcia, D., Whiting, S., Rydell, R., Löfqvist, A.
Pages: 5-15
Publication date: 2014
Peer-reviewed: Yes

Publication information
Journal: Journal of Voice
Volume: 28
Issue number: 6
Article number: 841e
ISSN (Print): 0892-1997
Ratings:
Web of Science (2019): Indexed yes
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Scopus rating (2017): CiteScore 1.72 SJR 0.735 SNIP 1.43
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 1.43 SJR 0.719 SNIP 1.486
Web of Science (2016): Impact factor 1.381
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 1.48 SJR 0.899 SNIP 1.265
Web of Science (2015): Impact factor 1.113
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 1.52 SJR 0.753 SNIP 1.274
Web of Science (2014): Impact factor 1.242
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 1.38 SJR 0.795 SNIP 1.266
Web of Science (2013): Impact factor 0.944
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 1.66 SJR 0.87 SNIP 1.513
Web of Science (2012): Impact factor 1.55
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 1.69 SJR 1.022 SNIP 1.495