





Soledad Correa¹ 
Jean Pierre Contreras Leiva¹ 
Daniela Olivares Ramírez¹ 
Nicolás Cano Farías¹ 

Cross-cultural adaptation of the Chilean version of Evaluation of Ability to Sing Easily: EASE

Equivalencia cultural de la versión Chilena del Evaluation of Ability to Sing Easily: EASE

Keywords

Voice
Singing
Protocols
Quality of Life
Evaluation

Descriptores

Voz
Canto
Protocolos
Calidad de vida
Evaluación

ABSTRACT

Purpose: To adapt the Australian singing voice protocol, Evaluation of Ability to Sing Easily (EASE) to Chilean Spanish. **Methods:** A translation of the EASE to Chilean Spanish was performed and later back translated; these were reviewed by a committee made up of 4 Speech-Language pathologists who created the first version in Chilean Spanish (EASE-CL). The EASE-CL is made up of 22 items, the same as the original, which are answered according to a Likert frequency scale, to which, during its adaptation, the option ‘not applicable’ was added in order to identify the instructions that were not understood or inappropriate for the vocabulary of Chilean singers. This version was applied to 21 professional singers in the Valparaiso Region. During this application there were no suggestions to change any of the instructions. **Results:** The EASE-CL reflects the original English both in the number of items and in the domains. **Conclusion:** The cultural and linguistic equivalence of the EASE protocol in Chilean Spanish was demonstrated and the EASE-CL version came to be.

RESUMEN

Objetivo: Adaptar lingüística y culturalmente el protocolo australiano de voz cantada Evaluation of Ability to Sing Easily (EASE) al español chileno. **Método:** Fue realizada la traducción al español chileno del EASE y posteriormente la retrotraducción; ambas fueron revisadas por un comité compuesto por 4 fonoaudiólogos quienes crearon la primera versión en español chileno (EASE-CL). El EASE-CL está compuesto, al igual que el original, por 22 ítems que se contestan de acuerdo con una escala de Likert de frecuencia, a la que, durante la adaptación, se le sumó la alternativa “no aplicable” para poder identificar las consignas no comprendidas o inapropiadas para el vocabulario de los cantantes chilenos. Esta versión se aplicó a 21 cantantes profesionales de la región de Valparaíso. Durante esta aplicación no existieron sugerencias para el cambio de alguna consigna. **Resultado:** El EASE-CL refleja la versión original del inglés, tanto en la cantidad de ítems como en dominios. **Conclusión:** Queda demostrada la equivalencia cultural y lingüística del protocolo EASE al español chileno, originándose la versión EASE-CL.

Correspondence address:

Soledad Correa Forno.
Angamos 655, piso n°13, oficina 1,
Reñaca, Viña del Mar, Chile, CP: 2540064.
E-mail: soledad.correa@uv.cl

Received: September 05, 2019.

Accepted: December 06, 2019.

Study conducted at the Universidad de Valparaíso, Ciudad de Valparaíso, Región de Valparaíso, Chile.

¹ Universidad de Valparaíso, Ciudad de Valparaíso, Región de Valparaíso, Chile.

Conflict of interests: nothing to declare.

Financial support: nothing to declare.



This article is published in Open Access under the Creative Commons Attribution license, which allows use, distribution, and reproduction in any medium, without restrictions, as long as the original work is correctly cited.

INTRODUCTION

Health is classically defined as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”⁽¹⁾; the concept depends on the surroundings, the lifespan of the person, and what their self-perception is in relation to their quality of life⁽²⁾. Quality of life, for its part, is a concept that has been constantly related to health, due to the fact that it allows for a personal view of the users on their own wellbeing, integrating domains of evaluation from artists of their rehabilitation to the impact on their occupation⁽³⁾.

At the beginning of the 1990s, with a growing concern for patients' quality of life, the first protocols of self-valuation were beginning to be created; among which, the instruments for measuring the impact of voice pathologies stand out⁽⁴⁾. In the voice area, for a voice to be considered healthy, it is necessary that it be acceptable for the person's different personal, social, and professional demands. In this way, if any of these parameters is found to be altered, we are faced with a voice problem for which it is necessary to consider the use that each person has for their voice⁽⁵⁾. For this, it is possible to differentiate between two groups: people who use their voice in a non-professional manner and those who use their voice as a fundamental part of the performance of their trade or profession; that is to say, a professional voice, the group in which we find singers⁽⁶⁾. These are the considered to be the voice elite, since the use of the voice is intense, highly demanding, for which minimal changes to the voice could generate negative consequences in their job performance. This is the reason why it is necessary to have specific and sensitive instruments that measure the quality of life associated to the voice⁽⁷⁾. Furthermore, the self-evaluation instruments focused on this population, which is submitted to a greater demand on their voice, ought to be more sensitive when providing an immediate response after a presentation in order to avoid any kind of bias generated by memory in both special and temporal imprecisions⁽⁸⁾.

The *Evaluation of Ability to Sing Easily* (EASE) protocol was created in Australia in the year 2013 to cover the necessity of the immediate evaluation of healthy voices, and specifically for the singing voice. Its general structure possesses 22 items focused on evaluating the technical voice, two of which are subdivided into three domains: voice fatigue which is associated to physical symptoms, risk of pathology related to changes in mucus, and concern for the voice focused on the emotional sphere. Two of these items, (12 and 21) are evaluated in an inverse form because the wording is presented in a positive form. The responses are recorded according to a Likert frequency scale with four options: it does not happen, it happens a little, it happens with moderation, and it happens a lot.

The EASE protocol allows for the determination of the demands on the voice, recovery times, the predicted development of voice problems, the evaluation of the effectivity of therapy

in relation to the needs of the singer, the detecting of possible future voice deviation, and the proportioning of supporting information in regards to professional performance. Research related to the singing voice has used the EASE as a tool; one of these used the information from the results of the application of the protocol to generate voice warmups for choral singers, demonstrating that warmup programs can be elaborated based on the information received from the EASE to work specifically on singers' affected characteristics⁽⁹⁾. In another study, the voice demands of singers in a musical were measured by means of the EASE-BR⁽¹⁰⁾ protocol, culturally adapted to Brazilian Portuguese, in which the results demonstrated that the singers who had studied for the longest time had a lower point total when compared to singers with less study time, and furthermore determined that the EASE-BR10 is a tool which is sensitive to changes in the voice⁽¹¹⁾.

In order to use the EASE protocol in Chile, it is necessary for it to pass through the process of cultural and linguistic adaptation and afterwards to carry out its validation. This procedure can be carried out according to the international standards set by the Scientific Advisory Committee of the Medical Outcomes Trust in 2002⁽¹²⁾. Therefore, the objective of this investigation was to culturally and linguistically adapt the EASE protocol for the singing voice to Chilean Spanish. This is important given the fact that the self-valuation protocols usually still used in Chile have not been adapted to, nor are they valid for, the reality in Chile⁽¹³⁾, possibly generating a different impact of the expressions on the population studied⁽¹⁴⁾. In this way, using protocols not culturally and linguistically adapted for the population to study, could generate results with little fidelity due to the possible difficulty in comprehension of the wording, especially when confronted with a more technical language.

METHODS

This investigation was approved by the bioethics committee of the Faculty of Medicine at the University of Valparaíso in Chile by the act of evaluation number 35/2018. All the participants signed their informed consent to the investigation.

The cultural and linguistic adaptation process of the protocol was performed within the framework described by the Scientific Advisory Committee of the Medical Outcomes Trust, 2002⁽¹³⁾. In this way, and following the steps described for the process of cultural and linguistic adaptation of the protocol, the study began with the translation of the original EASE protocol to Chilean Spanish. This process was performed independently by two Spanish-English bilingual speech-language pathologists who are experts in the voice area and two translated protocols were obtained. It was requested that they make the vocabulary appropriate for the population being studied which, in this case, was directly to Chilean Spanish with vocabulary appropriate for professional singers. After

that, both translations were compared by a committee of experts comprised of four speech-language pathologists who are specialists in the voice area, as well as bilingual in English and Spanish, none of whom had participated in the previous translation process. The committee then agreed upon a final translation (TF), which was then back translated according to the established process. The back translation was performed by other voice specialist speech-language pathologists, who are Spanish-English bilingual, had not participated in the previous stages, and did not know the original protocol. This stage of back translation consisted in translating the TF to the original English. Afterwards, the original version of the EASE protocol was compared to the back translation by the previously mentioned committee, and the two versions were considered to be semantically equivalent.

By means of the process described above, the cultural and linguistic adaptation of the EASE protocol to Chilean Spanish was obtained. As the word 'EASE' is phonetically similar to the English word 'easy', a word recognized by many Chileans, the name of the protocol was kept, since it itself explains the final goal of the tool, which is to evaluate the ability to sing with ease. This is how the first version of the protocol in Chilean Spanish, EASE Chile (EASE-CL) (Annex 1), was arrived at.

The first version was answered by 21 professional Chilean singers who fulfilled the following criteria for inclusion: be a professional Chilean singer, have a minimum of one year exercising the singing profession, live in the Metropolitan Region or the Fifth Region of Chile, be over the age of 18, and have a verified healthy voice possessing a score lower than 35.5 points on the Voice Symptom Scale (VoiSS)⁽¹⁵⁾. These participants were the ones who determined if the vocabulary was suitable to Chilean Spanish, especially for singers.

RESULTS

The process of application of the final translation was performed on a total sample of 21 singers. None of them made any observation about their comprehension of the questions in the preliminary EASE-CL protocol. This put an end to the process of the linguistic and cultural adaptation of the instrument, leaving us with the final version of the EASE-CL protocol (Annex 1).

The protocol contains 22 items, the same number as the original protocol and the same options as answers: does not happen, rarely happens, happens in moderation and happens a lot.

The process of the translation 1 (T1), translation 2 (T2), and the final translation (TF) is presented in table 1.

Annex 1. Culturally and linguistically adapted version of the Evaluation of the Ability to Sing Easily – EASE protocol to Chilean Spanish – EASE CL

EASE-CL					
Por favor responda las siguientes preguntas basándose en cómo su voz suena o se siente AHORA. Si ha variado durante el día simplemente elija la respuesta que se adapta a cómo está su voz en este momento. Si NO SUCEDE marque 1, si sucede POCO marque 2, si sucede MODERADO marque 3 y si sucede MUCHO marque 4. Encierre en un círculo la respuesta que más lo represente.					
1.	Mi voz está ronca	1	2	3	4
2.	Mi voz está seca/áspera	1	2	3	4
3.	Mi voz se quiebra y se corta	1	2	3	4
4.	Siento los músculos de la garganta sobreexigidos	1	2	3	4
5.	Mi voz está con aire	1	2	3	4
6.	Mi voz cantada se siente bien*	1	2	3	4
7.	Los comienzos de mis notas están retardados o con aire	1	2	3	4
8.	Siento mi voz tensa	1	2	3	4
9.	Estoy ansioso/a por mi voz	1	2	3	4
10.	Estoy teniendo dificultades con mi respiración en las frases largas	1	2	3	4
11.	Mis notas altas están con aire	1	2	3	4
12.	Mi voz suena plena y resonante*	1	2	3	4
13.	Mi voz se corta en algunas notas	1	2	3	4
14.	Estoy teniendo dificultad para cantar suavemente	1	2	3	4
15.	Mi voz está cansada	1	2	3	4
16.	Estoy teniendo problemas para cambiar de registros	1	2	3	4
17.	Actualmente tengo dificultades con mis notas altas	1	2	3	4
18.	Cantar se hace difícil	1	2	3	4
19.	Estoy teniendo problemas para proyectar mi voz	1	2	3	4
20.	Estoy preocupado/a por mi voz	1	2	3	4
21.	Mi voz está lista para una presentación si es necesario*	1	2	3	4
22.	Estoy teniendo problemas para mantener notas largas	1	2	3	4
TOTAL					

Leyenda: * Elementos con aspectos positivos y puntaje inverso.

Table 1. Summary of the translation process for the cultural and linguistic adaptation

	Original english	Translations	Back translation	Final translation in chilean spanish
1.	My voice is husky	T1: Mi voz está ronca T2: Mi voz está ronca TF: Mi voz está ronca	My voice is hoarse	Mi voz está ronca
2.	My voice is dry/scratchy	T1: Mi voz es seca/áspera T2: Mi voz está seca/áspera TF: Mi voz está seca/áspera	My voice is dry/rough	Mi voz está seca/áspera
3.	My voice cracks and breaks	T1: Mi voz se interrumpe y se quiebra T2: Mi voz se quiebra y se corta TF: Mi voz se quiebra y se corta	My voice breaks and cuts	Mi voz se quiebra y se corta
4.	My throat muscles are feeling overworked	T1: Siento un sobrecargo muscular en mi garganta T2: Los músculos de mi garganta se sienten cansados TF: Siento los músculos de la garganta sobrecargados	I feel my throat tight	Siento los músculos de la garganta sobrecargados
5.	My voice is breathy	T1: Mi voz esta con aire T2: Mi voz está con aire TF: Mi voz está con aire	My voice has air	Mi voz está con aire
6.	My singing voice feels good	T1: Mi voz cantada se siente bien T2: Mi voz cantada se siente bien TF: Mi voz cantada se siente bien	My singing voice feels good	Mi voz cantada se siente bien
7.	The onsets of my notes are delayed or breathy	T1: El inicio de mis notas es tardío o con aire. T2: Los comienzos de mis notas están retardados o con aire TF: Los comienzos de mis notas están retardados o con aire	The beginnings of my notes are delayed or with air	Los comienzos de mis notas están retardados o con aire
8.	My voice feels strained	T1: Mi voz se siente tensa T2: mi voz se siente tensa TF: Siento mi voz tensa	I feel my voice with strain	Siento mi voz tensa
9.	I am worried about my voice	T1: Mi voz me tiene intranquilo T2: estoy ansioso/a por mi voz TF: estoy ansioso/a por mi voz	I feel anxious about my voice	Estoy ansioso/a por mi voz
10.	I am having difficulty with my breath for long phrases	T1: Tengo dificultades sosteniendo notas largas T2: Estoy teniendo problemas para mantener notas largas TF: Estoy teniendo dificultades con mi respiración en las frases largas	I'm having problems with my breathing in the long sentences	Estoy teniendo dificultades con mi respiración en las frases largas
11.	My top notes are breathy	T1: Mis notas agudas están con aire T2: Mis notas altas están con aire TF: Mis notas altas están con aire	My higher notes have air	Mis notas altas están con aire
12.	My voice sounds rich and resonant*	T1: Mi voz suena rica(llena) y resonante T2: Mi voz suena rica y resonante TF: Mi voz suena plena y resonante	My voice sounds and feels resonant	Mi voz suena plena y resonante
13.	My voice is cutting out on some notes	T1: Mi voz no está produciendo algunas notas T2: Mi voz se está cortando en algunas notas TF: Mi voz se corta en algunas notas	My voice is cut some notes	Mi voz se corta en algunas notas
14.	I am having difficulty singing softly	T1: Tengo dificultad al cantar suave T2: Estoy teniendo dificultad para cantar suave TF: Estoy teniendo dificultad para cantar suavemente	I'm having trouble with my singing voice	Estoy teniendo dificultad para cantar suavemente
15.	My voice is tired	T1: Mi voz está cansada T2: Mi voz está cansada TF: Mi voz está cansada	I feel my voice is tired	Mi voz está cansada
16.	I am having difficulty changing registers	T1: Tengo dificultades en los cambios de registro T2: Estoy teniendo problemas para cambiar de registros TF: Estoy teniendo problemas para cambiar de registro	I'm having problems to change the register	Estoy teniendo problemas para cambiar de registro

Table 1: Continuation...

	Original english	Translations	Back translation	Final translation in chilean spanish
17.	I am having difficulty with my high notes	T1: Tengo dificultades con mis notas altas T2: Estoy teniendo problemas con mis notas altas TF: Tengo dificultades con mis notas altas	I have problems with my higher notes	Tengo dificultades con mis notas altas
18.	Singing feels like hard work	T1: Cantar es un esfuerzo T2: Cantar se hace difícil TF: Cantar se hace difícil	Singing becomes difficult	Cantar se hace difícil
19.	I am having difficulty projecting my voice	T1: Tengo dificultades para proyectar mi voz T2: Estoy teniendo dificultad para proyectar mi voz TF: Estoy teniendo dificultad para proyectar mi voz	I'm having problems to project my voice	Estoy teniendo dificultad para proyectar mi voz
20.	I am concerned about my voice	T1: Estoy preocupado con respecto a mi voz T2: estoy preocupado/a por mi voz TF: Estoy preocupado/a por mi voz	I'm feeling worried about my voice	Estoy preocupado/a por mi voz
21.	My voice is ready for performance if required*	T1: Mi voz está lista para actuar si es necesario T2: Mi voz está lista para una presentación si es necesario TF: Mi voz está lista para una presentación si es necesario	My voice is prepared now for a presentation	Mi voz está lista para una presentación si es necesario
22.	I am having difficulty sustaining long notes	T1: Tengo dificultades sosteniendo notas largas T2: Estoy teniendo problemas para mantener notas largas TF: Estoy teniendo problemas para mantener notas largas	I'm having trouble to sustain notes	Estoy teniendo problemas para mantener notas largas

T1: Translation 1; T2: Translation 2; TF: Final Translation.

DISCUSSION

The process of cultural and linguistic adaptation must be precise, well-organized, and according to the standardized procedures that accord to the reality they wish to implement. In the case of Chile, there are very few protocols adapted culturally and linguistically to Chilean Spanish such as the Voice Symptom Scale (VoiSS) and the Index of Voice Disadvantage for Folk Singing⁽¹⁶⁾, the latter being used for the singing voice. However, the ability to use the adapted EASE-CL protocol gives us a tool that avoids memory bias in evaluating the voice since its application is immediately following a presentation. The international standards indicated above were used for the cultural adaption of the EASE-CL, where it was demonstrated that it has been culturally and linguistically adapted for Chile.

The version adapted for Chile can now be used as an instrument for the prevention and early detection of voice pathologies in a qualitative way. Its use will be important because the majority of voice self-evaluation protocols are directed to voice pathologies and are not sufficiently sensitive for the early detection of inadequacies in healthy voices, which is especially necessary when making reference to high-performance professional voices. For the reasons mentioned above, it has become necessary to consider the possibility of validating the protocol to obtain the standards of the Chilean norm for use, both clinically and in the investigation of

healthy singing voices, to be able to quantitatively perform the valuation of the points obtained.

CONCLUSION

The EASE-CL has shown itself to be an apt tool for use in the reality of Chilean singers since its vocabulary was correctly adapted. Ending things, the EASE-CL protocol was accepted in its totality by the target population in its first application and has been linguistically and culturally adapted in accordance with Chilean vocabulary.

REFERENCES

1. World Health Organization (1946) Preamble to the Constitution of the World Health Organization, adopted by the International Health Conference
2. GavidiaV, Talavera M. (2012). La construcción del concepto de salud. *Didáctica de las Ciencias Experimentales y Sociales*. 26:161-175.
3. Urzúa A, Caqueo-Urizar A. (2012). Quality of life: a theoretical review. *Ter Psicol*. 30(1): 61-71.
4. Shaheen, N. (2014). Exploring the Relationship Between Spectral and Cepstral Measures of Voice and the Voice Handicap Index (VHI). *J Voice*; (4):430-9. PMID: 24698884. DOI: 10.1016/j.jvoice.2013.12.008.
5. Behlau M, Madazio G, Feijo D, Azevedo R, Gielow I, Rehder MI. (2004-2005). Aperfeiçoamento vocal e tratamento fonoaudiológico das disfonias. In: Behlau M, organizadora. *Voz: o livro do especialista*. Vol II. Rio de Janeiro: Revinter.

6. Cobeta I, Núñez F, Fernández S. (2013). *Patología de la voz*. Sociedad Española de Otorrinolaringología y Patología cérvico-facial. 1ª Edición. Barcelona: Marge Médica Books.
7. Koufman J, Isaacson G. (1991). The Spectrum of vocal dysfunction. *The Otolaryngol Clin North Am.* 24(5): 985-8. PMID: 1754226.
8. Phyland D, Pallant J, Benninger M, Thibeault S, Greenwood K, Smith J, Vallance N. (2013). Development and Preliminary Validation of the EASE: A Tool to Measure Perceived Singing Voice Function. *J Voice.* 27(4):454-62. <https://doi.org/10.1016/j.jvoice.2013.01.019>.
9. Phyland DJ, Thibeault SL, Benninger MS, Vallance N, Greenwood KM, Smith JA. (2013). Perspectives on the Impact on Vocal Function of Heavy Vocal Load Among Working Professional Music Theater Performers. *J Voice.* 27(3): 390.e31-9. PMID: 23415149. DOI: 10.1016/j.jvoice.2012.12.003.
10. Rocha B, Moreti, F, Amin E, Madazio G, Behlau M. (2014). Cross-cultural adaptation of the Brazilian version of the protocol Evaluation of the Ability to Sing Easily. *CoDAS.* 26(6):535-9. DOI: 10.1590/2317-1782/20142014175.
11. Picanço DL, Salles F, Cassol M. (2019). The Effectiveness of the EASE Scale in the Development of a Vocal Warm-up Program for an Amateur Choir. *J Voice.* 33(3): 310-316. DOI: 10.1016/j.jvoice.2017.11.003.
12. Pacheco C, Behlau, M. Immediate Impact of Vocal Demand on Musical Theater Singers in Brazil. *J Voice.* Available online 30 May 2018. In Press. DOI: 10.1016/j.jvoice.2018.04.013.
13. Aaronson N, Alonso J, Burnam A, Lohr K, Patrick DL, Perrin E, Stein RE. (2002). Assessing Health Status and Quality-of-life Instruments: Attributes and Review Criteria. *Qual Life Res.* 11(3):193-205. PMID: 12074258. DOI: 10.1023/a:1015291021312.
14. Contreras Ruston F, Moreti F, Vivero M, Malebran C, Behlau M. (2016). Equivalencia cultural de la versión Chilena del Voice Symptom Scale – VoiSS. *CoDAS.* 28(5): 625-633. DOI: 10.1590/2317-1782/20162015249.
15. Correa S, Contreras F, Castillo A, Moreti F, Behlau M. (2018). Equivalencia cultural de la versión Chilena del Modern Singing Handicap Index: MSHI. *CoDAS.* 30(3): e20170156. DOI: 10.1590/2317-1782/20182017065.