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# Self-assessment of communication resources used by sales representatives and its relation with sales performance

## *Autoavaliação dos recursos comunicativos por representantes comerciais e sua relação com o desempenho em vendas*

### Keywords

Communication  
 Products Commerce  
 Speech-Language and Hearing Sciences  
 Protocols  
 Voice

### Descritores

Comunicação  
 Comercialização de Produtos  
 Fonoaudiologia  
 Protocolos  
 Voz

### ABSTRACT

**Purpose:** To analyze the self-assessment of communication resources used by sales representatives and its relation with their sales performance. **Methods:** The study counted with 55 sales representatives, 46 men and 9 women, between 24 and 56 years old. In the first phase of the study, participants answered questions related to identification data, self-assessment protocols of vocal behavior and communicative resources; besides that, they were asked to select the positive and negative communication resources of their own speech during the sales. In the next phase, the participants were divided into two groups according to their sales performance: Group A (GA), individuals with better sales performance and Group B (GB), individuals with worst sales performance. The data were statistically analyzed. **Results:** Regarding the vocal behavior self-assessment, the sales representatives considered their voice quality as normal, their vocal pitch, loudness and speech rate as regular and as having an expressive voice. Regarding the communicative behavior, there was low presence of regionalism, use of gesture and use of other support resources during the sales; contrarily, there was high occurrence of precise articulation of speech sounds, visual contact, lack of inhibition to talk, time monitoring and objectivity of the speech. **Conclusion:** The sales representatives' self-assessment was positive for the objectivity of the speech, knowledge of the subject and use of proper vocabulary; it was negative for, lack of subject domain, criticism and prejudgment, and improper vocabulary. The self-assessment was similar in GA and GB.

### RESUMO

**Objetivo:** Analisar a autoavaliação dos recursos comunicativos utilizados por representantes comerciais e sua relação com o desempenho em vendas. **Método:** A amostra foi composta de 55 representantes comerciais, dos quais 46 eram homens e 9 eram mulheres, com idade entre 24 e 56 anos. Na primeira etapa, foi aplicado um protocolo com questões referentes aos dados de identificação, autoavaliação do comportamento vocal e dos recursos comunicativos e seleção de recursos comunicativos de influência positiva e negativa no seu próprio discurso na situação de venda. Na etapa seguinte, os participantes foram separados em dois grupos em função do desempenho em vendas: grupo A (GA), com melhor desempenho em vendas, e grupo B (GB), com pior desempenho em vendas. Tal divisão foi realizada de acordo com informações fornecidas pela empresa. Os resultados foram submetidos à análise estatística. **Resultados:** Na autoavaliação do comportamento vocal, os representantes consideraram sua qualidade vocal normal, frequência, intensidade de voz e velocidade de fala regulares, além de voz expressiva. Com relação aos recursos comunicativos, houve baixa ocorrência de regionalismo, de uso de gestos e de recursos de apoio nas vendas e alta ocorrência de articulação precisa dos sons da fala, de contato visual, de desinibição na comunicação, de controle do tempo e de objetividade do discurso. **Conclusão:** Representantes de vendas autoavaliaram de forma positiva a objetividade no discurso, o domínio do assunto e o uso de vocabulário adequado e de forma negativa a falta de domínio do assunto, as críticas e os preconceitos e o uso de vocabulário inadequado. Os grupos A e B se autoavaliaram de forma semelhante.

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Received: March 02, 2019

Accepted: April 10, 2019

Study conducted at Centro de Estudos da Voz – CEV - São Paulo (SP), Brasil.

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**Financial support:** nothing to declare.

**Conflict of interest:** nothing to declare.



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## INTRODUCTION

The purpose of communication is to transmit an idea, an information, a concept or a feeling using signs and symbols, which can be expressed by oral communication, written communication, by gestures, images, among others<sup>(1)</sup>. Considering that sales representatives will show their company identity through their communication, many companies have been investing to improve the communication among their employees once this is considered a strategy to achieve credibility and good reputation<sup>(2)</sup>. Communicative resources are the abilities used in the communication process that embrace vocal quality, speech rate, vocal pitch, use of gestures, articulation, etc<sup>(2,3)</sup>. Some studies with individuals who use their voice professionally have found that the precise articulation of speech sounds, variability in fundamental frequency, regular speech rate and regular voice pitch conveys a sense of security, credibility, and objectivity to the listener. On the other hand, when the person's communication does not have such characteristics it gives the impression that the speaker was anxious or nervous<sup>(3,4)</sup>.

The sales representative professional has an autonomous work and performs visits to his clients to mediate deals for the benefit of the company. To be considered a sales representative, the professional must be registered in the *Conselho Regional de Representantes Comerciais* of his region; this *conselho*, i.e. agency, regulates this professional activity; it has specific standards and guidelines, that are not required for other categories of sellers<sup>(5,6)</sup>. Since the sales representative have an autonomous work, he is an external employee, that is, he does not work inside the company workplace and he personally deal with clients in different situations, environments and working conditions. Therefore, the sales representative must be well prepared to use his communicative resources in order to promote the product while representing the company's identity, as he will be the company's contact with customers. The sales representative must be concerned with more than just the message he is delivering, he must pay close attention in how he will deliver it. Most companies consider that good communication promotes positive image and gives credibility to their services<sup>(2)</sup>. Managers and business professionals consider positive resources of their communication: knowledge of the subject, adequate vocabulary and objectivity of their speech; which shows concern with demonstrating security and technical understanding of the subject<sup>(7)</sup>.

In order to persuade their customers, sellers use expiratory reserve air and speak with strong loudness, i.e. vocal abuse during their negotiations<sup>(8)</sup>. These behaviors may have a negative impact on their sales activity. A regular use of vocal resources and specific communication abilities are important strategies for a good communicator<sup>(9)</sup>.

Usually, the irregular use of certain vocal adjustments occurs because the sales representative is unaware of his own voice and communication resources, thus, it is difficult, and sometimes even impossible, for the sales representative to consistently use and control his voice use. The self-assessment is one of the

strategies to properly investigate how the professional perceives such adjustments.

The self-perception is essential in the speech language pathologist practice, both for vocal rehabilitation and communication improvement. When the individual understands and knows himself better he will make the changes that are needed to establish adequate communication resources according to his professional and personal context, which will guarantee that the message is delivered clearly and precisely<sup>(10)</sup>. Self-assessment protocols have been frequently used in the speech language pathologist practice and in scientific research. The data provides important information to guide decisions inside and outside the clinical practice<sup>(11)</sup>. In addition, it contributes to the patient's follow-up and improvement throughout the treatment; also it is considered to be a strong predictor of the patient's motivation for voice therapy<sup>(12)</sup>.

Considering the importance of conscious and controlled use of communication resources in the sales activity, the aim of this study is to analyze the self-assessment of communication resources used by sales representatives and its relation with their sales performance.

## METHODS

This study was accepted by the Committee for Ethics in Research of *Escola Superior de Criciúma* (ESUCRI) under the protocol number nº 2.893.855. All participants signed the informed consent form. The study counted with fifty-five volunteers who worked at a natural food distributor at *Tubarão* city, *Santa Catarina*, with operations in the states of *Paraná* and *Rio Grande do Sul*. The sales representatives were invited to participate in this study through personal contact and through the Human Resources department of their company. The inclusion criteria were: men and women between 21 and 60 years old, working as a sales representative registered in the *Conselho Regional de Representantes Comerciais*, worked at the natural food distributor at *Tubarão* city and have signed the informed consent form.

Initially, an invitation email was sent to all sales representatives of the company. The sales representatives who accepted the invitation were selected according to the inclusion criteria. Next, they received another email with a link containing the guidelines and other procedures to answer the protocol. To assess the communicative resources, an online version of the self-assessment of communicative behavior protocol was created. This protocol was previously developed in a study that analyzed the communication resources of managers and business professionals<sup>(7)</sup>. This protocol was divided into three parts: 1) personal data; 2) self-assessment of vocal behavior and communicative resources; 3) identification of resources with a negative and positive influence on their own communicative discourse.

In addition to the tutorial on how to answer the online protocol, the participants received an audio file, recorded by the first author, explaining all questionnaire items and indicating

how each resource could be identified during their professional activity.

The first part of the protocol<sup>(7)</sup> had items of personal data including name, age, sex, years of professional experience, professional position, schooling, company that the person represented and professional registration number; these data was included to the protocol version of the present study. The second part counted with 14 questions of the self-assessment of vocal behavior and use of communicative resources related to their communication in professional and personal environments. Based on their self-perception of vocal behavior and use of communicative resources, the participants answer option were: never, rarely, sometimes, frequently and always. For the statistical analysis, the answers were categorized as low frequency (never, rarely and sometimes) and in high frequency (frequently and always). The third part of the protocol counted with 39 items related to communicative resources used in the selling process where 19 had a positive influence and 20 had a negative influence, according to the participants self-assessment. In this part of the protocol, an adaptation of wording was performed and the original item “work environment” was replaced to “during the sale process”. The answers were given in a 10-point scale, where 1 = the least influence and 10 = the greatest influence. Next, participants selected the three most important resources in terms of positive and negative influence.

This protocol was chosen according to the specific literature of the field<sup>(3,13)</sup> and it has parameters known for their positive or negative impact on the communicative process, according to the way they are used by the speakers in different communication situations.

The first stage of the research analyzed the data of all participants. In the next stage, the participants were divided into two groups according to their sales performance: Group A (GA), individuals with better sales performance and Group B (GB), individuals with worst sales performance. The company provided the total amount of items sold in the last 12 months for each sales representative. This amount was between 918 and 10524 items sold per month. The Shapiro-Wilk test was used to test for normal distribution, the confidence interval was set at 95%. There was a high frequency of months in which the sold items had a non-normal distribution. Thus, the sales representative groups were divided according to the median number of the sold items during the analyzed period of time; up to 4,798 sold items for GB and over 4,799 for GA.

Data were analyzed using descriptive and inferential statistics and the IBM SPSS software, version 25.

The discrete quantitative variable and the ordinal qualitative variables were analyzed considering the average, median, minimum, maximum, first quartile, third quartile and standard deviation; the nominal qualitative variables were analyzed considering frequency and percentage.

The Shapiro-Wilk test was used to test for normal distribution of the discrete variable, age. Since it had a normal distribution the independent T test was used to analyze any differences between groups. Regarding the ordinal qualitative variables,

the non-parametric Mann-Whitney test was used. In order to associate groups with nominal qualitative variables, the Fisher’s exact test was used for variables with two categories and Pearson’s chi-square test was used for variables with multiple categories. The confidence interval was set at 95% for all statistical analysis.

## RESULTS

The study sample counted with 55 sales representatives with an average age of 39 years and 1 month old. The GA had 27 participants with an average age of 38 years and 5 months old, and the GB, had 28 participants with an average age of 39 years and 5 months old.

Considering all the sales representatives, 9 were females (16.4%) and 46 (83.6%) were males. Considering GA and GB, the GA counted with 23 males (85.2%) and 4 females (14.8%) and GB counted with 23 males (82.1%) and 5 females (17.9%). Most of the participants had completed high school education ( $n = 39$ ; 70.9%) and had one to five years of professional experience ( $n = 26$ ; 47.3%). Both groups were similar regarding personal data, such as sex, schooling and years of professional experience.

In the self-assessment of vocal behavior, the sales representative more often had normal voice quality ( $n = 53$ ; 96.4%), regular vocal pitch ( $n = 44$ ; 80%), regular vocal loudness ( $n = 38$ ; 69.1%), regular speech rate ( $n = 43$ ; 78.2%), nasal respiration ( $n = 49$ ; 89.1%) and regular vocal expressiveness ( $n = 32$ ; 58.2%). The comparison of both groups showed higher perception of regular vocal loudness in GA ( $p = 0.012$ ) when compared to GB (Table 1).

Regarding the communicative resources, there were low occurrence of accent ( $n = 44$ ; 80%), of use of gestures ( $n = 41$ ; 74.5%) and of support material, such as audiovisual resources and pamphlets in selling situations ( $n = 29$ ; 52.7%); and there was a high presence of precise articulation of speech sounds ( $n = 44$ ; 80%), visual contact during the speech ( $n = 51$ ; 92.7%), inhibition to talk ( $n = 46$ ; 83.6%), control of time during speech ( $n = 29$ ; 52.7%) and objectivity of the speech ( $n = 50$ ; 90.9%). There was no difference between better or worst sales performance regarding the self-assessment of communicative resources (Table 2).

Regarding the communicative resources with positive influence, the most common responses were objectivity of the speech and knowledge of the subject, median of 10.00; these items were followed by adequate vocabulary, diction / articulation / pronunciation, body posture, visual contact during speech and creativity and preparedness, median of 9.00. Vocal pitch, respiration, voice projection, speech rate and correct use of microphone had median of 8.00. The less common communicative resources were gestures and use of accent, median of 7.00 and 4.00, respectively. The correct use of microphone was the only resource that was different between groups (Table 3); it was lower for GB ( $p = 0.033$ ).

**Table 1.** Analysis of the self-assessment of vocal behavior according to the sales performance

Variable and Category	Group						p-value
	A		B		Total		
	N	%	N	%	N	%	
Vocal quality							
Altered	0	0.0	2	7.1	2	3.6	0.491
Normal	27	100.0	26	92.9	53	96.4	
Vocal pitch							
Low	0	0.0	1	3.6	1	1.8	0.479
High	4	14.8	6	21.4	10	18.1	
Regular	23	85.2	21	75.0	44	80.1	
Vocal loudness							
Strong	3	11.1	13	46.4	16	28.8	0.012*
Weak	1	3.7	0	0.0	1	1.9	
Regular	23	85.2	15	53.6	38	69.4	
Speech rate							
Fast	3	11.1	9	32.1	12	21.6	0.101
Regular	24	88.9	19	67.9	43	78.4	
Respiration							
Mixed	4	14.8	2	7.1	6	11.0	0.422
Nasal	23	85.2	26	92.9	49	89.0	
Vocal expressiveness							
Expressive	8	29.6	15	53.6	23	41.6	0.102
Regular	19	70.4	13	46.4	32	58.4	

\*p &lt; 0.05 – Fisher's exact test and Pearson's chi-square

**Captions:** N = number; % = percentage**Table 2.** Analysis of the self-assessment of communicative resources according to the sales performance

Variable and Category	Group						p-value
	A		B		Total		
	N	%	N	%	N	%	
Presence of accent							
High occurrence	4	14.8	7	25.0	11	19.9	0.503
Low occurrence	23	85.2	21	75.0	44	80.1	
Precise articulation of speech sounds							
High occurrence	21	77.8	23	82.1	44	80.0	0.746
Low occurrence	6	22.2	5	17.9	11	20.0	
Use of gesture							
High occurrence	6	22.2	8	28.6	14	25.4	0.758
Low occurrence	21	77.8	20	71.4	41	74.6	
Visual contact during speech							
High occurrence	24	88.9	27	96.4	51	92.7	0.352
Low occurrence	3	11.1	1	3.6	4	7.3	
Inhibition to talk							
High occurrence	20	74.1	26	92.9	46	83.5	0.078
Low occurrence	7	25.9	2	7.1	9	16.5	
Control of time during speech							
High occurrence	14	51.9	15	53.6	29	52.7	1.000
Low occurrence	13	48.1	13	46.4	26	47.3	
Use of audiovisual resources							
High occurrence	11	40.7	15	53.6	26	47.2	0.345
Low occurrence	16	59.3	13	46.4	29	52.9	
Objectivity of the speech							
High occurrence	24	88.9	26	92.9	50	90.9	0.669
Low occurrence	3	11.1	2	7.1	5	9.1	

Fisher's exact test

**Captions:** N = number; % = percentage

**Table 3.** Analysis of the self-assessment of the communicative resources with positive influence according to the sales performance

Variable	Group	Average	SD	Min	Max	Q25	Median	Q75	p-value
Vocal Pitch	A	7.56	1.89	4.00	10.00	6.00	8.00	10.00	0.928
	B	8.07	1.44	4.00	10.00	7.00	8.00	9.00	
Use of accent	A	4.15	2.44	1.00	9.00	2.00	4.00	5.00	0.133
	B	3.82	2.21	1.00	8.00	1.25	3.50	5.00	
Adequate vocabulary	A	8.81	1.49	5.00	10.00	8.00	9.00	10.00	0.902
	B	8.89	1.26	5.00	10.00	8.00	9.00	10.00	
Objectivity of the speech	A	8.81	2.08	1.00	10.00	8.00	10.00	10.00	0.873
	B	9.18	1.22	5.00	10.00	8.25	10.00	10.00	
Respiration	A	7.33	2.11	3.00	10.00	5.00	7.00	9.00	0.758
	B	7.79	1.66	5.00	10.00	6.25	8.00	9.00	
Diction/ Articulation / Pronunciation	A	8.15	2.13	1.00	10.00	7.00	8.00	10.00	0.580
	B	8.79	1.34	6.00	10.00	8.00	9.00	10.00	
Voice projection	A	8.19	1.62	5.00	10.00	7.00	8.00	10.00	0.742
	B	8.36	1.37	5.00	10.00	7.25	8.00	10.00	
Speech rate	A	8.11	1.78	5.00	10.00	7.00	8.00	10.00	0.066
	B	8.11	1.50	5.00	10.00	7.00	8.00	10.00	
Pauses	A	7.89	1.91	4.00	10.00	6.00	8.00	10.00	0.216
	B	7.96	2.03	3.00	10.00	7.00	8.50	9.75	
Body posture	A	8.89	1.45	4.00	10.00	8.00	9.00	10.00	0.302
	B	8.86	1.38	5.00	10.00	8.00	9.00	10.00	
Gestures	A	7.00	2.43	1.00	10.00	5.00	7.00	9.00	0.217
	B	6.93	1.92	2.00	10.00	5.25	7.00	8.00	
Visual Contact	A	8.81	1.96	1.00	10.00	9.00	9.00	10.00	0.748
	B	8.96	1.07	6.00	10.00	8.00	9.00	10.00	
Lack of inhibition	A	8.59	1.78	4.00	10.00	8.00	9.00	10.00	0.161
	B	8.96	1.17	6.00	10.00	8.00	9.00	10.00	
Knowledge of the subject	A	8.63	1.96	2.00	10.00	8.00	9.00	10.00	0.394
	B	9.07	1.36	5.00	10.00	8.00	10.00	10.00	
Adequate use of time while speaking	A	8.63	1.50	5.00	10.00	8.00	9.00	10.00	0.589
	B	8.39	1.69	4.00	10.00	8.00	9.00	10.00	
Using adequate audiovisual resources	A	8.07	2.34	1.00	10.00	6.00	9.00	10.00	0.233
	B	8.32	1.85	2.00	10.00	7.25	9.00	10.00	
Creativity	A	8.48	1.76	3.00	10.00	8.00	9.00	10.00	0.073
	B	8.86	1.11	6.00	10.00	8.00	9.00	10.00	
Preparedness	A	9.07	1.24	6.00	10.00	8.00	10.00	10.00	0.099
	B	8.93	1.12	7.00	10.00	8.00	9.00	10.00	
Correct use of microphone	A	7.67	2.47	1.00	10.00	6.00	8.00	10.00	0.033*
	B	7.36	2.51	1.00	10.00	6.00	8.00	9.75	

\*p &lt; 0.05 – Mann-Whitney test

**Captions:** SD = standard deviation; Q25= first quartile; Q75=third quartile

Regarding the communicative resources with negative influence, the most common responses for both groups were inadequate vocabulary, lack of knowledge of the subject, use of informal language and criticisms and prejudice, median of 9.00, followed by problems with diction, nervousness, shyness, inadequate body posture and lack of creativity, median of 8.00. Items as monotonous voice, soft voice, being prolix, uncoordinated speech-respiration, fast speech rate, inadequate use of gestures, no visual contact during speech, lack of teaching ability, inadequate use of audiovisual resources had median of 7.00. Excessive use of pauses and use of informal language had median of 6.00. No difference was found between groups of sales representatives according to their

sell performance and presence of communicative resources with negative influence (Table 4).

Regarding the three most important resources in terms of positive influence, the most frequent were: knowledge of the subject (n = 30; 54.5%), objectivity of speech (n = 28; 50.9%) and use of adequate vocabulary (n = 15; 27.3%). These resources were considered to be the same among groups (Table 5). The three most important resources in terms of negative influence were: lack of knowledge of the subject (n = 27; 49.1%), use of criticisms and prejudices (n = 18; 32.7%) and inadequate vocabulary (n = 15; 27.3%). These three resources were also considered to be the same among groups (Table 5).



**Table 4.** Analysis of the self-assessment of the communicative resources with negative influence according to the sales performance

Variable	Group	Average	SD	Min	Max	Q25	Median	Q75	p-value
Monotonous voice	A	7.07	2.81	1.00	10.00	5.00	8.00	9.00	0.558
	B	6.18	3.08	1.00	10.00	2.75	7.00	8.75	
Soft voice	A	6.59	2.94	1.00	10.00	4.00	7.00	9.00	0.146
	B	5.79	3.25	1.00	10.00	2.00	6.00	8.75	
Inadequate vocabulary	A	6.85	3.43	1.00	10.00	4.00	8.00	10.00	0.179
	B	7.00	3.77	1.00	10.00	3.00	9.50	10.00	
Being prolix	A	6.00	3.20	1.00	10.00	4.00	6.00	9.00	0.170
	B	6.71	3.29	1.00	10.00	5.00	8.00	9.75	
Uncoordinated speech-respiration	A	6.04	2.85	1.00	10.00	5.00	7.00	8.00	0.818
	B	6.32	2.99	1.00	10.00	3.25	7.50	8.00	
Problems with diction	A	6.37	3.32	1.00	10.00	4.00	7.00	10.00	0.566
	B	6.43	3.50	1.00	10.00	2.00	8.00	10.00	
Nervousness	A	6.56	3.20	1.00	10.00	4.00	7.00	10.00	0.170
	B	6.68	3.55	1.00	10.00	3.00	8.00	10.00	
Shyness	A	6.33	3.43	1.00	10.00	3.00	8.00	9.00	0.356
	B	6.93	3.34	1.00	10.00	4.50	8.00	10.00	
Fast speech rate	A	6.26	3.46	1.00	10.00	2.00	6.00	10.00	0.372
	B	6.64	2.77	1.00	10.00	5.00	7.00	8.75	
Excessive use of pauses	A	5.52	3.12	1.00	10.00	3.00	6.00	8.00	0.360
	B	6.07	2.79	1.00	10.00	3.25	7.00	8.00	
Inadequate body posture	A	6.59	3.52	1.00	10.00	4.00	8.00	10.00	0.289
	B	6.21	3.45	1.00	10.00	2.25	7.00	9.75	
Inadequate use of gestures	A	6.07	3.37	1.00	10.00	2.00	7.00	9.00	0.209
	B	6.57	3.63	1.00	10.00	2.25	8.00	10.00	
No visual contact	A	6.07	3.50	1.00	10.00	3.00	6.00	10.00	0.177
	B	6.36	3.40	1.00	10.00	3.00	7.50	9.75	
Lack of teaching ability	A	6.19	3.39	1.00	10.00	3.00	7.00	10.00	0.067
	B	6.18	3.42	1.00	10.00	2.00	7.00	9.00	
Lack of knowledge of the subject	A	6.85	3.38	1.00	10.00	4.00	9.00	10.00	0.180
	B	7.11	3.58	1.00	10.00	3.00	9.50	10.00	
Inadequate use of time during speaking	A	6.48	3.38	1.00	10.00	4.00	8.00	10.00	0.100
	B	6.18	3.38	1.00	10.00	2.25	7.00	9.00	
Inadequate use of audiovisual resources	A	6.04	2.99	1.00	10.00	4.00	7.00	8.00	0.177
	B	6.61	3.33	1.00	10.00	3.25	7.50	10.00	
Lack of creativity	A	6.30	3.57	1.00	10.00	2.00	7.00	10.00	0.102
	B	6.89	3.28	1.00	10.00	3.00	8.00	10.00	
Use of informal language	A	5.89	3.66	1.00	10.00	2.00	6.00	10.00	0.326
	B	6.04	3.63	1.00	10.00	2.00	6.50	10.00	
Criticism and prejudice	A	6.19	3.96	1.00	10.00	1.00	7.00	10.00	0.253
	B	6.61	3.94	1.00	10.00	2.00	9.50	10.00	

Mann-Whitney test

**Captions:** SD = standard deviation; Q25= first quartile; Q75=third quartile**Table 5.** Analysis of the three most frequent positive and negative communicative resources of the sales representatives according to their sales performance

Variables and categories	Group						p-value
	A		B		Total		
	N	%	N	%	N	%	
Positives							
Vocal Pitch							
No	21	77.8	22	78.6	43	78.2	1.000
Yes	6	22.2	6	21.4	12	21.8	
Use of accent							
No	25	92.6	27	96.4	52	94.5	0.611
Yes	2	7.4	1	3.6	3	5.5	

Fisher's exact test

**Captions:** a = not calculated because the variable is constant; N = number; % = percentage

**Table 5.** Continued...

Variables and categories	Group						p-value
	A		B		Total		
	N	%	N	%	N	%	
Adequate vocabulary							
No	19	70.4	21	75	40	72.7	0.768
Yes	8	29.6	7	25	15	27.3	
Objectivity of the speech							
No	16	59.3	11	39.3	27	49.3	0.181
Yes	11	40.7	17	60.7	28	50.7	
Respiration							
No	26	96.3	28	100	54	98.1	0.491
Yes	1	3.7	0	0	1	1.9	
Diction/ Articulation / Pronunciation							
No	23	85.2	26	92.9	49	89	0.422
Yes	4	14.8	2	7.1	6	11	
Voice projection							
No	26	96.3	28	100	54	98.1	0.491
Yes	1	3.7	0	0	1	1.9	
Speech rate							
No	26	96.3	27	96.4	53	96.4	1.000
Yes	1	3.7	1	3.6	2	3.6	
Pauses							
No	27	100	25	89.3	52	94.6	0.236
Yes	0	0	3	10.7	3	5.4	
Body posture							
No	22	81.5	22	78.6	44	80	1.000
Yes	5	18.5	6	21.4	11	20	
Gestures							
No	27	100	27	96.4	54	98.2	1.000
Yes	0	0	1	3.6	1	1.8	
Visual contact							
No	19	70.4	22	78.6	41	74.5	0.547
Yes	8	29.6	6	21.4	14	25.5	
Lack of inhibition							
No	27	100	27	96.4	54	98.2	1.000
Yes	0	0	1	3.6	1	1.8	
Knowledge of the subject							
No	12	44.4	13	46.4	25	45.4	1.000
Yes	15	55.6	15	53.6	30	54.6	
Adequate use of time while speaking							
No	27	100	28	100	55	100	.a
Using adequate audiovisual resources							
No	27	100	28	100	55	100	.a
Creativity							
No	20	74.1	23	82.1	43	78.1	0.528
Yes	7	25.9	5	17.9	12	21.9	
Preparedness							
No	19	70.4	22	78.6	41	74.5	0.547
Yes	8	29.6	6	21.4	14	25.5	
Correct use of microphone							
No	27	100	28	100	55	100	.a
Negative							
Monotonous voice							
No	23	85.2	25	89.3	48	87.2	0.705
Yes	4	14.8	3	10.7	7	12.8	
Soft voice							
No	21	77.8	24	85.7	45	81.7	0.503
Yes	6	22.2	4	14.3	10	18.3	

Fisher's exact test

**Captions:** a = not calculated because the variable is constant; N = number; % = percentage

**Table 5.** Continued...

Variables and categories	Group						p-value
	A		B		Total		
	N	%	N	%	N	%	
Inadequate vocabulary							
No	22	81.5	18	64.3	40	72.9	0.227
Yes	5	18.5	10	35.7	15	27.1	
Being prolix							
No	25	92.6	25	89.3	50	90.9	1.000
Yes	2	7.4	3	10.7	5	9.1	
Uncoordinated speech-respiration							
No	26	96.3	27	96.4	53	96.4	1.000
Yes	1	3.7	1	3.6	2	3.6	
Problems with diction							
No	24	88.9	25	89.3	49	89.1	1.000
Yes	3	11.1	3	10.7	6	10.9	
Nervousness							
No	24	88.9	22	78.6	46	83.7	0.469
Yes	3	11.1	6	21.4	9	16.3	
Shyness							
No	21	77.8	25	89.3	46	83.5	0.295
Yes	6	22.2	3	10.7	9	16.5	
High speech rate							
No	26	96.3	26	92.9	52	94.6	1.000
Yes	1	3.7	2	7.1	3	5.4	
Excessive use of pauses							
No	27	100	27	96.4	54	98.2	1.000
Yes	0	0	1	3.6	1	1.8	
Inadequate body posture							
No	23	85.2	23	82.1	46	83.7	1.000
Yes	4	14.8	5	17.9	9	16.3	
Inadequate use of gestures							
No	27	100	27	96.4	54	98.2	1.000
Yes	0	0	1	3.6	1	1.8	
No visual contact							
No	22	81.5	26	92.9	48	87.2	0.252
Yes	5	18.5	2	7.1	7	12.8	
Lack of teaching ability							
No	25	92.6	26	92.9	51	92.7	1.000
Yes	2	7.4	2	7.1	4	7.3	
Lack of knowledge of the subject							
No	13	48.1	15	53.6	28	50.9	0.79
Yes	14	51.9	13	46.4	27	49.1	
Inadequate use of time during speaking							
No	27	100	28	100	55	100	.a
Inadequate use of audiovisual resources							
No	27	100	28	100	55	100	.a
Lack of creativity							
No	19	70.4	23	82.1	42	76.3	0.355
Yes	8	29.6	5	17.9	13	23.7	
Use of informal language							
No	24	88.9	25	89.3	49	89.1	1.000
Yes	3	11.1	3	10.7	6	10.9	
Criticism and prejudice							
No	19	70.4	18	64.3	37	67.3	0.775
Yes	8	29.6	10	35.7	18	32.7	

Fisher's exact test

**Captions:** a = not calculated because the variable is constant; N = number; % = percentage



## DISCUSSION

Selling is an essential process for any company to succeed<sup>(14,15)</sup>. The literature shows that there is an exchange relationship between buyers and sellers<sup>(16)</sup>. This may be a one-time meeting or it may happen for a period of time. Therefore, sales representative must guarantee that the sales process has an immediate impact and that it remains and continues to grow considering the amount of relationships and type of relationships. This relationship happens in many ways and using different techniques, furthermore communicative resources are an important strategy used to help in sales activity<sup>(2,17)</sup>.

Certain vocal adjustment has a persuasion effect in the listener that will express something nice and pleasant when perceived as positive<sup>(3,13,18)</sup>. On the other hand, individuals that have voices with higher pitch and higher speech rate might be judged as less convincing. A research<sup>(13)</sup> that analyzed the oral expressiveness of teachers and its impact on the students observed that higher voice volume, that is, stronger loudness, are judged negatively by the listeners.

Overall, most of the sales representatives considered their voice parameters, speech rate, respiration and vocal expressiveness, as regular (Table 1). It is noteworthy the statistically significant difference ( $p = 0.012$ ) of strong vocal loudness between GA and GB (GA = 11.1% and GB = 46.4%) and in keeping a regular vocal loudness (GA = 85.2% and GB = 53.6%). These data are similar to two previous studies with call center operators, in which a normal voice with balanced projection and loudness was considered to be a positive aspect for professional performance<sup>(19,20)</sup>. These same studies presented voice as an aspect that will demonstrate attitudes and emotions and also that will be a vocal gesture that communicates. Hence, GA participants showed more control on these voice quality adjustments, which may have led to better outcomes in sales when compared to GB.

There was no difference between the groups regarding other aspects, such as vocal quality, vocal pitch, speech rate and vocal expressiveness, this outcome might be related to how such parameters were analyzed. Overall, sales representatives are not used to assess their voice and communication resources once they do not have the opportunity to perform specific training. Usually, the teaching and training processes are related to what they will sell and not to how they will sell it; the how to sell it would embrace strategies such expressiveness and oral communication. Further studies analyzing communicative resources in sales representatives should be performed considering the evaluation of a speech language pathologist that works with these professionals. Thus, it will be possible to analyze the issues concerning this field and considering different points of view and obtaining more data that may add new information and show relations<sup>(11)</sup>.

Regarding the use of communicative resources (Table 2), groups A and B were similar. The self-evaluation of both groups reported: use a precise articulation of speech sounds, have visual contact during speech, have inhibition to talk, be objective and

have control of time during the speech. According to previous studies<sup>(18,19)</sup>, such items are considered to be essential for a good communication in addition to provide better understanding, attention and interest in the speech and understanding of the subject. Studies with call center operators<sup>(15,19,20)</sup> show that the way they express themselves will interfere directly in his professional performance and may result in more or less attention of the customer during the call.

Regarding self-assessment of the communicative resources with positive influence (Table 3), no difference was observed between GA and GB ( $p = 0.033$ ); the only difference was related to the correct use of microphone (GA = 7.67 and GB = 7.36). Considering that the microphone is used to provide a higher volume, it can be hypothesized that the difference between groups may be related to more voice care in the GA when compared to the GB.

Regarding the analysis of the three most frequent positive communicative resources during the sales (Table 5), the sales representatives considered as more positive: objectivity of the speech, knowledge of the subject and use of adequate vocabulary. These same positive aspects were observed in a previous study that used the same protocol with managers and business professionals<sup>(7)</sup>. Thus, the communicative behavior of sales representatives is similar to managers and business professional's behavior; hence, it seems that the corporate environment provides the selection of certain communication resources.

Considering the analysis of the self-assessment of the communicative resources with negative influence during the sales (Table 4), there was no significant difference between the groups. The three most frequent negative communicative resources (Table 5) were lack of knowledge of the subject, use of criticism and prejudice and the use of inadequate vocabulary. All these aspects showed direct influence in the seller-buyer relationship<sup>(16)</sup>. The score of the positive and negative communicative resources may bring emotional impacts in the lives of these professionals, since these changes may or may not bring negative outcomes during their work<sup>(11)</sup>.

Although communication plays an important role throughout the sales process, the present research outcomes showed that sales representatives will first guarantee they have proper knowledge to sale their product. Therefore, they will have to know all characteristics of the product, its functions and its value to the market. The use of proper vocabulary, with the technical terms that are required, is also a strategy to demonstrate more knowledge about the products, thus, providing more positive and consistent outcomes. In addition, the sales representatives must show they have respect with the customer, avoiding prejudice and criticism, hence, strengthening the confidence in the seller-buyer relationship. Considering the current uncertainties, high knowledge is the only way to guarantee competitive advantage, according to a study with Japanese companies<sup>(21)</sup>.

Thus, sales representatives are constantly in a changing and dynamic market, which requires them to continuously improve their knowledge and build new relationship strategies<sup>(17)</sup>.

The results of this research are valuable to show guidelines to elaborate speech language therapy proposals for these professionals. Although self-evaluation is subjective, it offers data that should be considered to define specific strategies for each individual to achieve his goals<sup>(11)</sup>. In addition, it is noteworthy that the self-assessment of the impact that a problem brings will influence on the readiness to change<sup>(12)</sup>.

The protocol used in this study, made it possible to identify the importance that sales representatives give to vocabulary, language, posture and attitudes during sales, and not only the communicative resources related to vocal quality and expressiveness. The communication self-assessment should be valued and considered to elaborate strategies to improve the communication of these professionals<sup>(11,12)</sup>.

Voice and communicative training programs are known to provide positive effects on voice professionals<sup>(22)</sup>. The inclusion of exercise focuses on high knowledge of the subject and language, associated with vocal training and verbal expressiveness are more likely to be a perfect strategy to guarantee the success of training programs for sales representatives<sup>(23)</sup>.

One of the speech language pathologist challenges is the constant search for an accurate characterization of the communication profile of the voice professional; this will increase the speech language pathologist practice and expand the possibilities of their performance which will bring more benefits to their clients/patients<sup>(24)</sup>.

## CONCLUSION

The sales representatives' self-assessment was positive for the objectivity of the speech, knowledge of the subject and use of proper vocabulary. The negative most important parameters were: lack of subject domain, criticism and prejudice, and inadequate vocabulary. The self-assessment of better and worst sales representatives was similar regarding vocal behavior and communicative resources.

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#### **Authors contributions**

*AAML* - Study delimitation, data collection, data analysis, writing of the manuscript; *MCB* - Study delimitation, writing and revision of the manuscript; *MB* - Study design, data analysis, writing and revision of the manuscript.