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Cultural adaptation of the Expressive One-Word Picture Vocabulary Test, 4th edition (EOWPVT-4), for Brazilian Portuguese speakers

Adaptação cultural do Expressive One-Word Picture Vocabulary Test, 4th edition (EOWPVT-4), para falantes do Português Brasileiro

Keywords

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Descritores

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ABSTRACT

Purpose: To present a brief report of the first steps that involved the process of the cultural translation and adaptation of the Expressive One-Word Picture Vocabulary Test, fourth edition to Brazilian Portuguese (BP). **Methods:** The process of translation and adaptation of this instrument was performed in the following steps: (1) translation of the original text (English) to Brazilian Portuguese (target culture) by two different sworn translators oriented towards our research goal; (2) parity analysis between both translations and design, by a group of experts, of a synthesis version; (3) back translation of the synthesis version by two other sworn translators who did not participate in step 1; and (4) Comparison between back-translation and the original version made by a group of specialists, thus shaping the pre-final adapted version of the EOWPVT-4. **Results:** In the Brazilian version, the number of items from the original version was maintained and the cultural adaptation of the EOWPVT-4 to BP followed the steps recommended in the literature besides considering the differences in the socio-cultural context, showing no significant discrepancies regarding semantic equivalence. Relevant adaptations (e.g., items not representative within the Brazilian culture) were required during this process so that the instrument could be used with the same methodological rigor as the original instrument. **Conclusion:** The process of cultural adaptation of this instrument indicated that there was theoretical, semantic, idiomatic and cultural equivalence with the original version in English.

RESUMO

Objetivo: Apresentar um breve relato sobre as primeiras etapas que envolveram o processo de tradução e adaptação cultural do teste *Expressive One-Word Picture Vocabulary Test, fourth edition* para o Português Brasileiro (PB). **Método:** O processo de tradução e adaptação desse instrumento foi realizado nas seguintes etapas: (1) tradução do texto original (inglês) para o PB (cultura alvo) por dois tradutores juramentados distintos e orientados quanto ao objetivo da pesquisa; (2) análise de paridade entre as traduções realizadas e concepção, por um grupo de especialistas, de uma versão síntese; (3) retrotradução da versão síntese por outros dois tradutores juramentados que não participaram da etapa 1; e (4) comparação entre a retrotradução e a versão original feita por um grupo de especialistas, moldando, assim, a versão adaptada pré-final do *EOWPVT-4*. **Resultados:** Na versão brasileira, foi mantida a quantidade de itens da versão original e a adaptação cultural do *EOWPVT-4* para o PB seguiu as etapas recomendadas pela literatura, além de considerar as diferenças do contexto sociocultural, não apresentando discrepâncias significativas no que se refere à equivalência semântica. Foram necessárias adaptações consideradas relevantes (e.g., itens não representativos da cultura brasileira) durante esse processo para que o instrumento pudesse ser utilizado com o mesmo rigor metodológico do instrumento original. **Conclusão:** O processo de adaptação cultural desse instrumento indicou que houve equivalência teórica, semântica, idiomática e cultural com a versão original em inglês.

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INTRODUCTION

Language is one of the most studied superior brain functions by various knowledge areas, especially when we talk about its acquisition and development that are due to its interactions, experiences and social relationships with the context it is inserted. Therefore, its appropriation process is extremely complex, since there are subsystems that integrate it (phonological, semantic, morphosyntactic and pragmatic) and together form and operate a system: language⁽¹⁾.

Among these subsystems, semantics are at the intersection of cognitive and linguistic development, that is, the relationship between the signifier (form) and the signified (content) present both at the level of comprehension/reception and production/expression⁽¹⁻³⁾. Children, for example, throughout their development, when hearing words associated with actions and feelings, make cognitive connections creating a connection between words and the meaning they carry⁽²⁻⁴⁾.

It is essential to point out that, because we are dealing with the evaluation of expressive vocabulary, aiming at identifying the level of this vocabulary, as well as possible disorders and/or delays and intervene precociously, it is necessary, rather, that the professional chooses the evaluation procedures that will be part of the diagnostic process and, based on the analysis of possible manifestations and leveling of the severity of each case, possible prognoses and conducts may be defined for further measurements of control of therapeutic efficacy^(5,6).

Such procedures, due to their nature, can be classified as formal/standardized or informal. The formal ones, punctually, provide a comprehensive appreciation of the evaluated ability, providing the possibility of outlining specific potentialities and difficulties, as well as safekeeping regarding rigor in application, domain in handling and criteria for analysis and interpretation of the results obtained^(6,7).

It is known, however, that constructed and/or adapted formal procedures are not always available in the language of the country, especially for the evaluation of the vocabulary of Brazilian Portuguese (BP). Therefore, a possible and viable alternative is to translate and adapt an instrument developed in another language that has been called “cultural adaptation”, in order to fill the existing gap in the objective methods of evaluation⁽⁸⁾.

The process of translation and adaptation of international instruments is widely disseminated in Brazil by professionals in the field of psychology and neuropsychology. However, in the field of Speech Language and Hearing Sciences, this practice is still relatively recent, especially in the context of language. This process, although long and intricate, has been a viable path found by researchers in search for procedures that offer data based on an objective evaluation of language⁽⁹⁾.

The availability of these methods provides not only support for clinical Speech Language Pathologists, but also contributes to the national scientific arena, enabling to carry out comparative and cross-cultural studies^(8,9).

Knowing, therefore, the relevance of these evaluation instruments, we propose, in this brief communication, to bring data on the process of translation and cultural adaptation of the Expressive One-Word Picture Vocabulary Test, fourth edition⁽¹⁰⁾ to BP.

METHODS

Ethical criteria

This research was approved by the Research Ethics Committee of São Paulo State University, Marília campus, under the number CAAE 05599018.1.0000.5406, according to the resolution of the National Health Council - CNS 466/12 on Guidelines and Regulatory Standards of Research Involving Human Beings and was initiated after the authorization of the North American Academic Therapy Publications, obtained in May 2019. All participants involved (or their guardians) collaborated out of their own free will and, in order to document the entire procedure, Terms of Free and Informed Consent were prepared, explained and signed.

The instrument

The Expressive One-Word Picture Vocabulary Test, fourth edition, hereinafter EOWPVT-4⁽¹⁰⁾, is an American test – in its fourth edition – which proposes to assist professionals and researchers in obtaining the expressive vocabulary of spoken language in which the subject must name, with only one word, objects, actions, or concepts using colorful illustrations.

This test consists of 190 stimuli, applied individually, in groups of people with 2 to 80 years of age, organized and articulated at an ascending level of difficulty, that is, starting with the easiest concepts (e.g., apple, book, dentist) and ending with the most complex (e.g., hexagon, prescription, otter). The evaluation should be interrupted when there are six consecutive errors⁽¹⁰⁾.

Among the easy use and its advantages, whether in the clinical or research context, one can mention the fact that EOWPVT-4 is composed of short verbal stimuli (e.g., What is he doing?), spoken aloud by the examiner, requiring short verbal responses (e.g., swimming) by the subject promoting rapid application - about 20 minutes⁽¹⁰⁾.

The score is performed dichotomously, 1 for each correct answer and 0 for each incorrect answer, in which the raw score must be converted into standard score, scalar score, percentage rank and equivalent age using the attached normative tables in the evaluator’s guidebook⁽¹⁰⁾.

It is noteworthy that EOWPVT-4 can be used by Speech Therapists, Psychologists, Occupational Therapists, rehabilitation specialists, learning specialists and others involved in the evaluation of cognitive functions and in the planning of activities of remediation⁽¹⁰⁾.

The process of translation and linguistic adaptation

Like every foreign test, the adaptation process is multiphase and requires a multidisciplinary team for its execution. As suggested by the literature^(7,11), the stages of the process were:

- (1) Translation of the original text (English) into BP (target culture) by two distinct sworn translators and guided to the objective of the research;
- (2) Parity analysis between the two sworn translations and the creation of a synthesis version by a group of experts;

- (3) Backtranslation of the synthesis version (Portuguese - English) by two other sworn translators who did not participate in step 1a; and
- (4) Comparison between Backtranslation and the original version made by an expert group, thus shaping the pre-final adapted version of the EOWPVT-4.

The adaptation of the instrument, in English, to the Brazilian Portuguese took into account the following aspects: (1) semantic, (2) idiomatic, and (3) cultural equivalence. With regard to the first aspect, we sought to maintain the level of vocabulary, that is, we observed the meaning of these terms and their adequacy as to the meaning that they are employed.

As for the second aspect, the translation process was analyzed regarding the literality of the terms and the existence of items in the target language. The third aspect, in turn, observed the coherence between the terms used and the experiences that were lived by individuals within the cultural context^(7,11).

The objective of this phase is to ensure the equivalences and quality of the test before the pilot application in BP-speaking subjects. Figure 1 presents the illustrative scheme of such steps:

RESULTS

During the first stage of this process, as presented earlier, two translators performed the translation of the 190 items of the record form. After receiving the file containing the translations, a team of experts, composed of two PhDs from the department of Evaluation and Diagnosis as well as an English teacher, met to evaluate both translations and, consequently, come up with the official test form in its version in Brazilian Portuguese. During this process, some divergences and weightings were found and will be presented in Table 1).

DISCUSSION

The present study aimed to bring data on the translation process and cultural adaptation of the EOWPVT-4(10) for BP.

The cultural adaptation of EOWPVT-4 to BP, in general, did not present significant discrepancies with regard to semantic equivalence. However, adaptations considered relevant during this process were necessary, with the purpose of adequacy and/or transposition from one language to another (using a single word for a figure), due to the following factors:

- (A) incongruity with the research proposal: adapting a foreign test to our language is not a simple task. A translation requires much more than a simple replacement of terms; it implies the search for elements in other languages that are equal to or similar to those being translated. Because it is a test that evaluates vocabulary through unique words (i.e., simple nouns and verbs),

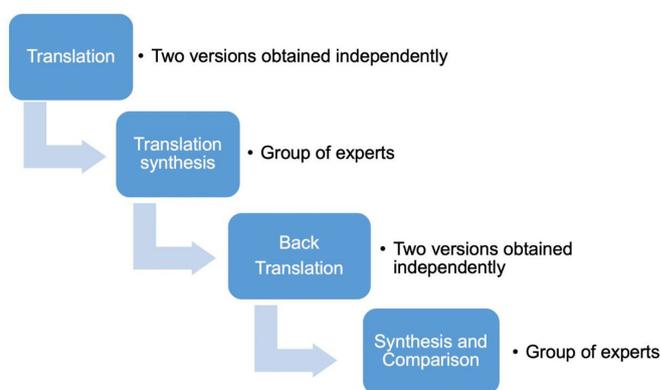


Figure 1. Representative diagram of the steps performed for the translation and adaptation of the EOWPVT-4

Table 1. Examples of stimulus adaptations with greater relevance to the Brazilian Portuguese

ORIGINAL ORDER	ADAPTATION	JUSTIFICATION
Item 45 – “Starfish”	“Estrela do mar” – starfish adapted to “Concha” – seashell	All the words presented in this topic, when translated into Brazilian Portuguese, become incongruous with the original proposal of the instrument, which is to present only one word.
Item 75 – “Wrench”	“Chave-inglesa” – wrench adapted to “Alicate” – plier	
Item 121 – “Skyscraper”	“Arranha-céu” - skyscraper adapted to “Teleférico” – cable car	
Item 182 – “Outrigger”	“Forquilha de Brandal” – outrigger adapted to “Proa” – bow	
Item 73 – “Fireplace”	“Lareira” – fireplace adapted to “Churrasqueira” – barbecue	We chose the adapted form, instead of the original one, due to the sociocultural aspects involved as well as the issue of the age of the participants (8-9 years old).
Item 93 – “Skydive/ Parachute”	“Paraquedismo” – parachute adapted to “Escalando” – climbing	The adaptation of this item is due to the relationship with the context of presentation. In the instrument, there is the question “What are they doing?”. Therefore, a response is expected whose action is in progress. However, when translated to PB, we did not obtain this result. Thus, adaptation was necessary.
Item 144 – “Prescription”	“Prescrição / Receita / Receituário” – Prescription Image Replacement	The representative image of the original instrument “Rx” whose expected response would be “prescription” is also not usual in the Brazilian sociocultural reality. It was decided to replace the image due to the frequency of exposure.

some terms were adapted taking into account the structural aspects of the target language. As an example, one can name *item 45* whose target stimulus was “Starfish”, which means, in Brazilian Portuguese, “Estrela do mar”. When translated into BP, the term lost its congruence with the proposal of the instrument by becoming a compound word, thus requiring an adaptation considering the parameters of the original image for the lexical choice (i.e., simple noun of the same semantic category). Therefore, the target stimulus became “Concha”, which means “seashell” in English. (see Table 1);

(B) sociocultural aspects: every language is a cultural fact and it is easy to identify it in the selection of words, since language, society and individual relate to each other, that is, they are permeated by social traits as a socioeconomic position, education, environment, among others^(3,4). This aspect can be checked in item 73 whose target stimulation was “Fireplace”. The literal translation into BP presented an inappropriate vocabulary (i.e., “Fireplace”) for the target version since this item does not match the socioeconomic and cultural reality of most of the Brazilian population, thus justifying the need for adaptation to the target stimulus of the same semantic category: “barbecue” was the term selected for substitution. The same argument is proposed for item 144 (Table 1);

(C) Lack of correspondents: These impasses are common in the studies of adaptation of instruments for language evaluation since their success is inherent in a good translation in which there is a need for a creative interpretation of the translator. In order to exemplify this aspect, item 93 can be cited whose target stimulus was “Skydiving/Parachuting”.

The literal translation into BP of “Skydiving” was compromised since it is a word transposed to the target language (idiomatic equivalence), and there is no corresponding, but rather an appropriation of the original term – anglicism. On the other hand, although there is a literal translation of “Parachuting” to BP, which is “Paraquedismo”, its use becomes unfeasible due to the fact that the instruction given by the examiner requires a corresponding response to an action verb (e.g., What is he doing?).

Thus, there was a necessity to adapt this item and, when considering the parameters of the original image for the lexical choice (i.e., simple noun of the same semantic category), the target stimulus became “Escalating” (Table 1).

Regarding the limitations of the present investigation, it can be mentioned the difficulty in selecting the vocabulary used to evaluate subjects belonging to the last age group of the instrument – from the age of 14 years up. As translators brought diversified vocabularies, it was up to the group of experts to consider the best target stimulus to be used from the eliciting image, the degree of semantic difficulty and the sociocultural and economic issues involving the context of application of the instrument.

International studies⁽¹²⁻¹⁴⁾ that used EOWPVT-4 demonstrated that this instrument was able to measure the performance of children with typical and atypical development (e.g., monolingual or bilingual, cochlear implant users, Down Syndrome) of vocabulary

in the age groups proposed by the original version of the test, thus justifying the choice of this instrument for use in Brazil.

In the field of Speech Language and Hearing Science, formal instruments for the evaluation of spoken language are scarce, since the construction and/or process of adaptation of an instrument is an arduous task, because it demands time, knowledge of theoretical and psychometric perspectives so that the instrument can be reliable and valid.

It is noteworthy that this research is still in progress in order to, in the future, present data regarding the performance of the subjects aiming at a better understanding of the items, the coherence between them, their psychometric measures, of technical equivalences (form of collection) and criterion (normative interpretation)⁽¹²⁾ for the BP version.

CONCLUSION

The present investigation presents the first step towards the standardization and validation of EOWPVT-4 to Brazilian Portuguese.

The process of cultural adaptation of this instrument indicated that there were theoretical, semantic, idiomatic and cultural equivalence with the original English version. Adjustments were needed so that the instrument could be used with the same methodological rigor as the original instrument.

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Author contributions

VRS foi responsável pelo desenho do estudo, aquisição de dados, análise de dados e redação do artigo; TAL e CMG foram responsáveis pela solicitação de autorização de uso do procedimento junto à editora, concepção e desenho do estudo, pela análise de dados, coorientação e orientação da pesquisa e redação do artigo.