

**Transcultural adaptation of The Teacher Efficacy for Inclusive Practices (TEIP):
Brazilian version****Adaptação transcultural do *The Teacher Efficacy for Inclusive Practices (TEIP)*: versão
brasileira****Adaptación transcultural de *The Teacher Efficacy for Inclusive Practices (TEIP)*:
versión brasileña**

*Karla Cristina Furtado Nina*¹, ORCID 0000-0001-5279-9238
*Simone Souza da Costa Silva*², ORCID 0000-0003-0795-2998
*Fernando Augusto Ramos Pontes*³, ORCID 0000-0001-9569-943X

^{1 2 3} Programa de Teoria e Pesquisa do Comportamento, Universidade Federal do Pará, Brasil

Abstract: This study aimed achieving the cross-cultural adaptation of The Teacher's Efficacy for Inclusive Practices (TEIP) to the Brazilian context. The TEIP is an instrument composed of 18 questions categorized in three dimensions, such as: inclusive teaching strategies, effectiveness in controlling behavior and effectiveness in collaboration. Five methodological steps were carried out: translation, translation synthesis, reverse translation, committee analysis and initials testing. The target people of this initial study were composed of 15 Basic Education teachers from the mesoregion of the state of Pará-Brazil. After overall evaluations, the scale showed itself up easy to be applied, good levels of acceptance and understanding. The TEIP Brazilian version is adapted regarding semantic, idiomatic, conceptual and cultural equivalences.

Keywords: teacher self efficacy, inclusive education, cross-cultural adaptation

Resumo: Este estudo objetivou realizar a adaptação transcultural do *The Teacher's Efficacy for Inclusive Practices (TEIP)* para o contexto brasileiro. O TEIP é um instrumento composto por 18 perguntas categorizadas em três dimensões, sendo elas: estratégias de ensino inclusiva, eficácia no controle de comportamento e eficácia na colaboração. É utilizado para medir a autoeficácia do professor para ensinar em salas de aula inclusivas. Foram realizadas cinco etapas metodológicas: tradução, síntese das traduções, tradução reversa, análise de comitê e teste piloto. O público-alvo do estudo piloto foi constituído por 15 professores de Educação Básica da mesorregião do estado do Pará-Brasil. Após todas as avaliações, a escala mostrou-se de fácil aplicação, bons níveis de aceitação e compreensão. O TEIP versão brasileira está adaptado no que se refere às equivalências semânticas, idiomáticas, conceituais e culturais.

Palavras-chave: autoeficácia do professor, inclusão educacional, adaptação transcultural

Resumen: Este estudio tuvo como objetivo realizar la adaptación transcultural *The Teacher's Efficacy for Inclusive Practices (TEIP)* para el contexto brasileño. El TEIP es un instrumento compuesto por 18 preguntas categorizadas en tres dimensiones, siendo ellas: estrategias de enseñanza inclusiva, eficacia en el control de comportamiento, y eficacia en la colaboración. Se utiliza para medir la autoeficacia del profesor para enseñar en aulas inclusivas. Se realizaron cinco etapas metodológicas: traducción, síntesis de las traducciones, traducción reversa, análisis de comité y prueba piloto. El público objetivo del estudio piloto fue constituido por 15 profesores de Educación Básica de la mesorregión del estado de Pará-Brasil. Después de todas las evaluaciones, la escala se mostró de fácil aplicación, buenos niveles de aceptación y comprensión. El TEIP versión brasileña está adaptado en lo que se refiere a las equivalencias semánticas, idiomáticas, conceptuales y culturales.



Palabras clave: autoeficacia del profesor, inclusión educativa, adaptación transcultural

Received: 05/28/2019

Accepted: 04/16/2020

How to cite this article:

Nina, K.C.F.; Silva, S. S. C. & Pontes, F.A.R. (2020). Transcultural adaptation of The Teacher Efficacy for Inclusive Practices (TEIP): Brazilian version. *Ciencias Psicológicas*, 14(1), e-2175. doi: <https://doi.org/10.22235/cp.v14i1.2175>

Correspondence: Karla Cristina Furtado Nina. Universidade Federal do Pará – UFPA. Av. Perimetral, 2-224 - Guamá, Belém - PA, 66075-110 - NTPC I - Núcleo de Teoria e Pesquisa do Comportamento/UFPA; e-mail: furtadokarla@hotmail.com. Simone Souza da Costa Silva. Universidade Federal do Pará – UFPA, e-mail: symon.ufpa@gmail.com. Fernando Augusto Ramos Pontes. Universidade Federal do Pará – UFPA, e-mail: farp1304@gmail.com

Introduction

The concept of self-efficacy was developed by Albert Bandura and is defined as a person's belief in their ability to organize and carry out courses of action necessary to achieve some types of performance (Bandura, 1998). In the educational systems, Tschannen-Moran and Woolfolk Hoy (2001), adapted the concept of self-efficacy and defined it as the belief of teachers, the judgment of their ability to achieve the desired results of students' engagement and learning, even for the most difficult or unmotivated.

It is understood that after performing their duties, teachers interpret and evaluate all the possible results obtained, creating judgments of their skills. When they believe their efforts have been successful, the confidence to succeed in their teaching practice gets stronger (Nina et al., 2016). It is worth noting that belief in self-efficacy is context-specific, however, people do not feel equally effective in all situations (Tschannen-Moran & Gareis, 2004).

Every discussion about relationships between belief and pedagogical practice get relevance in the context of differences, especially when teachers are challenged in their practices, such as when attending students with special educational needs in the regular classroom. In this context, well-trained, aware and effective teachers are essential to the success of inclusion (Kormos & Nijakowska, 2017).

Specifically, about the context of inclusion, Palmer (2006) considers that teacher self-efficacy is a crucial factor that affects a teacher's ability to effectively teach children with disabilities in the context of a regular and inclusive class. Sharma, Loreman and Forlin (2012), also say that a teacher with high self-efficacy in the implementation of inclusive practices is able to perceive that students with special educational needs can be taught in the regular classroom.

Researches show up that the successful implementation of inclusion reforms depends on the willingness of educators (Sharma, Forlin, & Loreman, 2008; Love, 2016; Song, 2016). And such researches suggest that teachers need to have three core skill areas to teach effectively in inclusive classrooms, namely: content knowledge and pedagogy (for example, knowing student characteristics, selecting instructional objectives, adapting instructions to meet individual needs, use cooperative learning); managing the classroom environment and behavior (for example, designing the classroom environment to avoid behavioral problems) and the ability to work collaboratively with parents and professionals (Groom and Rose, 2005; Nougaret et al. , 2005; Winter, 2006; Sharma, Loreman, & Forlin, 2012).

Based on the recommendations of Bandura (2006) for the construction of an instrument to measure self-efficacy, Sharma, Loreman and Forlin (2012) developed an instrument with the objective of measuring teacher self-efficacy to teach in inclusive classrooms, named ~~such as~~ The Teacher Efficacy for Inclusive Practices Scale (TEIP), having 18 questions, applied to a sample of 607 teachers in training, all of them selected from four countries (Canada, Australia, Hong Kong and India). The factor analysis of sample responses revealed three factors: effectiveness in the use of inclusive instruction, effectiveness in collaboration and effectiveness in dealing with disruptive behaviors. Conbrach's alpha coefficient for the full scale was .89. The alpha coefficients for the three factors ranged from .85 to .93. Reliability analyzes for the full scale, as well as factors for each country, suggested that scale provides a reliable measure of the perceptions of teachers in training about self-efficacy for inclusion in different countries.

International studies used the scale and replicated it in different samples and contexts, such as: Malinen, Savolainen and Xu (2012), who translated and adapted the scale with 451 teachers in service in the city of Beijing (China), in order to examine the factor and the structure of the TEIP scale among teachers in service and for looking into the relationship among self-efficacy for inclusive practices, basic factors and the interviewees' attitude towards inclusive education. The TEIP scale and its three subscales showed good reliability. The factor analysis supported a structure of three factors of self-efficacy, namely: (1) effectiveness in the use of instructions, (2) effectiveness in collaboration, (3) effectiveness in the management of behavior.

Sharma, Shaukat and Furlonger (2015) applied The Teacher Efficacy for Inclusive Practices Scale (TEIP) to 194 Pakistani teachers in training, 73 male and 121 female, enrolled in a teacher education program at a university in the government of Pakistan. Results indicated that male teachers in training expressed more positive attitudes towards the inclusion of students with disabilities in regular classrooms. Trained teachers who specialized themselves in special education did not express more positive attitudes towards inclusion than their colleagues who were preparing to teach in regular schools. However, participants with training in special education, knowledge of disability legislation, teaching experience, and personal experience with a disability, reported higher levels of self-efficacy compared to teaching within inclusive settings.

Dias (2017) evaluated the perception of teachers about their competencies in implementing inclusive practices through the adaptation of The Teacher Efficacy for Inclusive Practices Scale (TEIP) (Sharma et al., 2012), with 153 teachers of regular teaching and special education in Portugal. Results allowed to find a good factorial structure and scale fidelity. Differences were found due to personal variables such as gender, age or educational qualifications, professional variables such as period of working service and contractual situation, as well as training and personal experience with children who have special needs.

TEIP consists of a recent instrument that has been the target of adaptations and multicultural studies (Malinen et al., 2013; Sharma et al., 2012). Justification for adapting the scale was based on the belief that the teacher's effectiveness for inclusion is a specific construct of the task, and measurement of such a specific task must be performed using a scale that explicitly captures the construct (Sharma et al., 2012). Based on this information, the present work performed a translation into Portuguese language and the adaptation to Brazilian culture of the instrument The Teacher Efficacy for Inclusive Practices Scale (TEIP) by Sharma et al. (2012).

Method

Study design

This is a methodological study, developed from a framework that includes four stages: forward translation, back translation, committee analysis and application of the core study, according to the recommendations of Guillemin, Bombardier and Beaton (1993), Beaton,

Bombardier, Guillemin and Ferraz (2000) and Borsa, Damásio and Bandeira (2012) for processes of translation and cross-cultural adaptation of instruments.

Environment

The research was carried out online and/or in person with Basic Education teachers, more specifically at the levels of Elementary and Secondary State Education, municipal and federal schools present in some cities in the Northeast of Pará, like: Abaetetuba, Moju, Thailand, Tomé açu and Igarapé Mirim.

Participants

Four translators worked on it, three judges and fifteen teachers from public elementary and secondary schools participated, who met the following inclusion rules: (1) teachers from various degrees in the municipal and state schools in Abaetetuba, Moju, Thailand, Tomé açu and Igarapé Mirim – PA; (2) with a regular education class; (3) that attends any students with special educational needs ; (4) with a permanent or hired teacher relationship; (5) adherence to the research via acceptance and signature of the Informed Consent Form. The exclusion rules used were: (1) For failure to meet at least one of the rules mentioned before; (2) Non-agreement and non-signing of Informed Consent Form.

Instruments

Two instruments were used for data collection: (1) Questionnaire to characterize participants, having the objective of drawing a profile of the population observed, applied to basic education teachers, consisting of questions related to: age, sex, academic qualifications, years of services, experience with students of special educational needs -SEN-, teaching experience in Regular or Special Education; (2) The Teacher Efficacy for Inclusive Practices Scale (TEIP) by Sharma et al., (2012) which is an instrument designed for teachers with the objective of measuring teacher self-efficacy to teach in inclusive classrooms, consisting of 18 items with an accuracy response scale, from 1 (I strongly disagree) to 6 (I strongly agree). These items assess three dimensions: inclusive teaching strategies (six items, for example: I can use different assessment strategies, portfolio, adapted tests, performance-based assessment, and so on), effectiveness in collaboration (four items, for example: I am able to work together with others professionals and employees [for example, assistants, other teachers] in teaching students with SEN, in the classroom), effectiveness in controlling behaviors (six items, for example: I feel confident on skill of preventing bad behaviors in the classroom, before its occurrence).

Procedures

This research was approved by the ethics committee of the Federal University of Pará, Number. 2.912,010, as part of a huge project entitled: “Job Satisfaction, Efficacy Beliefs and Self-Regulation: Teachers' Perceptions”, under opinion Number 2.051,363. Participants were informed about objectives, procedures, risks and benefits of research, as well as ensuring confidentiality of their personal information via the Free and Informed Consent Term.

The following protocol for the process of cross-cultural adaptation of instruments was based on national and international studies that carried out the same process (Mattos et al., 2006; Giusti & Befi-Lopes, 2008). Being them:

1st stage- forward translation of original instrument: this is the translation of the text of original document from English to Portuguese language from Brazil, carried out by two

independent and fully proficient translators in both languages, called T1 and T2. In this step, operational equivalence was respected, which aims to keep original characteristics, getting greater reliability and validity of the instrument, keeping the same number of items (18), the same statement and the same five frequency response options (Mattos et al., 2006).

2nd stage- synthesis version: translations T1 and T2 were compared and synthesized in a single version by two translators, formulating translation A, in addition to a written report documenting the synthesis process, commenting on each of the issues addressed and how they were resolved.

3rd stage- back translation: it consisted of back translation of translation A from Portuguese to English of the instrument by two other bilingual translators with experience in both cultures, having the aim of verifying whether the translation in question was reflecting the same content as original the version. The two back-translated versions, called T3 and T4, were analyzed and compared with the original version. Subsequently, a single consensual version named B translation was produced, reflecting the instrument's validity in the new cultural context.

4th stage- analysis by the expert committee: the translations (T1, T2, T3, T4, A and B) performed in the previous stages were sent to the expert committee, having two bilingual professionals, having specific knowledge about the evaluated construct and knowledge of the original instrument. This step consisted of formal appreciation of semantic equivalence with professionals with the same profile as in steps 1 and 2. For the judgment of semantic equivalence, it was taken into account not only the meaning of the words between two different languages, but also reaching the same effect that the items (questions) have on different cultures (Mattos et al., 2006). After joint evaluation and discussion, a preliminary version was made based on the judgment of each item, called the C translation.

5th stage- Principal study: the objective of this phase was to verify if items, instructions and response scale were comprehensible to the target audience, therefore, they consisted of previous application of the C translation in a convenience sample made up of 15 teachers from state and municipal public-school system. Throughout this process an assessment was made of items and structure of instrument as a whole, that is, whether the terms were clear and well done.

A descriptive analysis was performed with the establishment of mean and standard deviation, only for the purpose of characterizing the sample informed in the participant's characterization questionnaire. These data were coded and analyzed using the Statistical Package for Social Sciences (SPSS) program. TEIP data regarding participant's response were not analyzed since the purpose of the application was to identify the adequacy of the items and structure of instrument as a whole.

Results

The process of cross-cultural adaptation started from the translation stage, in which translators 1 and 2 had to translate the 18 TEIP items. When comparing the two translations (T1 and T2), agreement was observed in 80% of the translated terms, and those that disagreed were judged and analyzed in the translation synthesis, unified in a single version in Translation A as described in the 2nd step.

In the 3rd stage, which consisted of back-translation, translators 3 and 4 made back-translation of Translation A to the original language, when comparing them, there was agreement in 95% of the terms generating a unified version resulting in translation B. Agreement was calculated using the Kappa concordance test from:

$$Kappa = \frac{P(O) - P(E)}{1 - P(E)}$$

Where: P (O): observed proportion of concordances (sum of concordant responses divided by the total); P (E): expected proportion of concordances (sum of expected values of concordant responses divided by the total).

The 4th step consisted of a committee analysis in which all translations were collected (translation 1, 2, 3, 4, A and B), together with original version of the instrument. The items were analyzed individually, considering cultural, idiomatic, linguistic and contextual equivalence. It was decided to modify some items to keep the meaning intended by the original instrument, as well as the understanding of teachers who work in a regular teaching class that the instrument was intended for. The suggestions were mainly related to the replacement of words by synonyms, anastrophe and / or grammatical order.

Finally, the pilot was the 5th and final stage of this cross-cultural adaptation process. There were no cases of non-understanding of any item, only suggestions regarding the response of each item, such as: Insert an explanation of the alternatives, clarifying what it means to partially and totally agree and disagree. The suggestions from this stage were again taken into consideration by the expert committee, thus formulating the D translation, its final version. The sample consisted of 15 teachers with an average age of 34.4 years, the majority male (60%), the education level was 73.3% (n = 11) of teachers with specialization at a broad level in the various areas of knowledge.

Here are some considerations about the decision processes of the most divergent items in the process of cross-cultural adaptation of TEIP for the Brazilian population. Table 1 gathered the terms discussed in the process of cross-cultural adaptation of TEIP, the final version of TEIP is presented at the end of the article.

Table 1

Terms discussed in the process of cross-cultural adaptation of TEIP

Question	Original version	Translation A	Translation B	Final version
2	<i>"I am able to calm a student who is disruptive or noisy"</i>	"Eu sou capaz de acalmar um estudante que é disruptivo ou barulhento "	<i>"I am able to calm down a student who is disruptive or noisy."</i>	"Sou capaz de acalmar um estudante que é disruptivo (como gritar, jogar objetos nos colegas, levantar do lugar sem autorização) ou barulhento "
4	<i>"I can assist families in helping their children do well in school"</i>	"Eu consigo dar suporte às famílias em ajudar seus filhos a ir bem na escola"	<i>"I can assist families in helping their children do well in school."</i>	"Consigo orientar as famílias a ajudarem os seus filhos a se saírem bem na escola".
6	<i>"I can provide appropriate challenges for very capable students"</i>	"Eu consigo fornecer desafios apropriados a alunos com altas habilidades "	<i>"I can provide appropriate challenges for capable students"</i>	"Consigo fornecer desafios apropriados a alunos muito capazes "
7	<i>"I am confident in my ability to prevent disruptive behaviour in the classroom before it occurs"</i>	"Tenho confiança na minha habilidade de prevenir comportamentos disruptivos em sala de aula, antes que aconteçam "	<i>"I am confident in my ability to prevent disruptive behavior in the classroom before it happens"</i>	"Tenho confiança na minha habilidade de prevenir comportamentos disruptivos em sala de aula, antes que ocorram "

Conceptual analysis

In the questions of numbers 01, 03, 04, 05, 06, 07, 12 and 15, the original highlighted English term “I can” was translated as “*Eu posso*” by translator 1 and by translator 2 “*Eu consigo*”. In the translation synthesis, it was argued that the term suggested by Bandura in the Guide to the Building of Self-Efficacy Scales (Bandura, 2006) is “I can do it”, because the effectiveness items must accurately reflect the construct and must be expressed in terms of “can do” instead of “do”, for this reason the term suggested by Bandura was “I can do it”.

In question n° 2, the sentence: “I am able to calm a student who is disruptive or noisy”, the highlighted term was translated as “disturbing” and “loud”. In the translation synthesis, the translators pointed out that the word “disruptive”, in special education, disruptive behaviors, are unwanted responses emitted by children, such as tantrums (they throwing themselves on the floor, shouting, crying), aggression (assaulting peers or authority figures), self-injurious (they hit their heads, they bite themselves), stereotypes (repetitive responses with self-stimulating function), in other words (Nicolino & Zanotto, 2010). And it should not be confused with indiscipline in the school environment.

The experts committee argued that when used the word "disruptive", the question would aim at focus on school indiscipline, and, considering that the scale will be answered by teachers and regular school teachers, and that some do not have a special education teaching in their education, it was necessary to include an explanation of the term “disruptive” in order to guarantee the intended meaning with the original instrument to keep equivalence between the two scales.

Analysis of the TEIP scale items

In question n° 4, the original highlighted English term “I can assist families in helping their children do well in school” was translated by translator 1 “I can help families helping their children do well in school” and by translator 2 “I can support families in helping their children to do well in school”. Making this understanding easier, the committee decided to use the phrase "I can guide families to help their children do well in school". The target population did not report any doubts related to this aspect.

In question n° 6, the original English term highlighted “I can provide appropriate challenges for very capable students” was translated as “students with high skills”. In the back-translation phase, it translated as “I can provide appropriate challenges for capable students”. The expert committee indicated that the meaning intended by the original instrument refers to “very capable students”, therefore, it was decided to replace the translated term in order to correspond to the original version of the scale.

Finally, in question n°7: “I am confident in my ability to prevent disruptive behavior in the classroom before it occurs”. The highlighted term was translated as "before they happen". In the back-translation, it was translated as “before it happens”, which has the same semantic meaning as “before it occurs”. The expert committee indicated that the meaning intended by the original instrument was to prevent disruptive behaviors in the classroom, even before they occurred. Thus, the following term was used: "I am confident in my ability to prevent disruptive behaviors in the classroom, before they occur". In the pre-test phase, teachers did not report any difficulties regarding the use of this sentence.

Analysis of scale responses

When it is applied the TEIP instrument to the target population, in the pre-test phase, it was noticed that 30% of the sample questioned the need to insert the meaning of the responses on the scale (I strongly disagree, I disagree, I partially disagree, I partially agree, I agree and I totally

agree). According to Bandura (2006), self-efficacy must be measured in comparison with the task's demanding levels, and for that, they are presented with items that portray different levels of task demands and assess the strength of their belief in their ability to perform every necessary activities.

It is important to consider that the answers can be obtained on a Likert scale that consists of measuring attitudes and knowing the degree of conformity of the interviewee with any proposed statement (Guil Bozal, 2006). Bandura (1996) advises that to encourage frank responses, an explanation is needed for the interviewees about the importance of their contribution to the research, stating that the knowledge it provides will increase understanding and guide the development of programs aimed at helping people to manage the life situations they need to handle.

Discussion

The scale includes items about the inclusion of special educational needs students in regular and inclusive education classes, without specifying any type of disability or syndrome. It is understood that teachers teach students with different skills in the classroom, requiring teachers to have specific strategies that work with all students, taking into account diversity and inclusion (Sharma et al., 2012). The 18 items on the scale were obtained from the existing literature on inclusive education and teacher effectiveness studies.

TEIP had three factors that measured teacher effectiveness with inclusive instruction (Factor 1); with collaboration (Factor 2); management of disruptive behaviors (Factor 3) (Sharma et al., 2012). The referred author says that to understand the effectiveness of a teacher in the individualized teaching of a student (for example, with SEN), the scale can be used taking into account the learning needs of a particular student when answering each item.

After results were obtained, it has been observed that the present adaptation obtained a very high level of semantic equivalence between the Portuguese version and the original English version, emphasizing the selection of words that were easily understood by teachers from different degrees, which is the target audience for this research. TEIP is adapted to assess the perception of self-efficacy of teachers from different areas about inclusive educational practices in the context of basic education.

Adaptation studies of the TEIP scale carried out in some other countries have shown up good psychometric properties, which can be checked out by the saturation of the items in the predicted dimensions, and values above 0.4 in general (Dias, 2017; Malinen et al., 2013; Sharma et al., 2012). These validity data are complemented by loyalty values greater than 0.8, which can also be considered very appropriate.

The translation of a scale requires linguistic care, since terms can have different ranges and specificities inherent to each language (Mattos et al., 2006). Besides that, it is necessary to work on tuning that contemplates the cultural context and lifestyle of the target population to whom a scale or a questionnaire is intended (Hambleton & Patsula, 1998).

There is no consensus on how to adapt an instrument for use in another cultural context (Borsa et al., 2012). But most studies follow five sequences, namely: translation, synthesis of translations, back-translation, analysis by a committee of specialists and pilot, being fundamental steps for the proper execution of the process (Dias, 2017; Matos, 2013). Thus, the present study adopted the main recommendations of the five steps proposed for the methodological operationalization of cross-cultural adaptation.

The first important aspect taken into consideration, when adapting an instrument, it is its translation from the original language to the target one, that is, the one in which the new version will be used (Borsa et al., 2012). The second moment constitutes the back-translation phase, which is a type of validity check, highlighting gross inconsistencies or conceptual mistakes in translation.

This step is produced by two people having the original language (English) as English native speakers and knowledge of the language in which the instrument will be translated (Portuguese).

Even coming up some translation conflicts of specific terms, translation and back-translation showed agreement in 95% of the items. The analysis stage of the expert committee of this study consisted of a multidisciplinary team, having professionals with specific knowledge about the construct evaluated by TEIP, in addition to native English teacher.

Despite the methodological harshness adopted in the process of cross-cultural adaptation of TEIP, the situations presented here must be considered with some caveats, namely: (1) Considering that other measurement properties, such as construct validity and reliability, need to be investigated to determine its validation in the Brazilian population; (2) Reduced number of teachers in the pre-test sample; (3) quantitative data was not collected because the objective of the study was only to translate and adapt the scale in a qualitative way; (4) The pre-test of the instrument was carried out in only one region of the country, considering that Brazil has very marked linguistic and regional differences, it would be interesting that the test considered a sample of the various Brazilian regions.

Final considerations

The present study carried out the cross-cultural adaptation of TEIP for the Brazilian context. The instrument presented satisfactory equivalences: conceptual, semantic, cultural and idiomatic between the adapted version and the original one. The guidelines and references taken into consideration may serve as a basis for interested people who are looking forward to go deeper in the area of adapting instruments of the self-efficacy construct, specifically with regard to inclusive educational practices.

This study was based on a convenience sample and, although efforts have been made to include schools from a variety of socio-economic contexts in the respective region, the results cannot be generalized to the all people of teachers in Brazil. For example, in the investigation in Abaetetuba city - PA, data were collected only in the city, where the level of economic and social development is considerably higher, not considering teachers who work in rural schools and located on the islands.

Despite limitations mentioned before, the study has several positive implications, such as the possibility of showing the levels of self-efficacy of teachers who work in regular and inclusive classes in a context little explored in this specific area. It is also suggested to use this measure to assess the effect of continuing training, and different models of professional teaching development, in order to get improvement of inclusive practices in schools, having in the future connections between schools and universities.

This scale provides an appropriate measurement tool that is developed from a socio-cultural perspective of diversity, rather than a medical model. The results indicate that the scale has reliability. More researches in different cultures and contexts will allow tougher assessment of the scale and its suitability to measure the effectiveness of teacher for inclusive education, as well as the validation of this scale now translated and adapted.

References

- Bandura, A. (1998). Self-efficacy. In *Encyclopedia of human behavior* (Academic P, pp. 71–81). <https://doi.org/10.1002/9780470479216.corpsy0836>
- Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-Efficacy Beliefs of Adolescents*, 5, 307–337.
- Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the Process of Cross-Cultural Adaptation of Self-Report Measures. *Spine*, 25(24), 3186–3191.

<https://doi.org/10.1097/00007632-200012150-00014>

- Borsa, J. C., Damásio, B. F., & Bandeira, D. R. (2012). Anorexia on Tumblr : A Characterization Study Studies on Anorexia. *Paidéia*, 22(53), 43–50. <https://doi.org/10.1590/1982-43272253201314>
- Dias, P. C. (2017). A autoeficácia dos professores para a implementação de práticas inclusivas: contributos para uma reflexão sobre a inclusão educativa. *Ensaio: Avaliação e Políticas Públicas Em Educação*, 25(94), 7–25. <https://doi.org/10.1590/s0104-40362017000100001>
- Groom, B., & Rose, R. (2005). Supporting the inclusion of pupils with social, emotional and behavioural difficulties in the primary school: the role of teaching assistants. *Journal of research in special educational needs*, 5(1), 20-30.
- Guil Bozal, M. (2006). Escala Mixta Likert-Thurstone. *Guil Bozal, Manuel, nº 5*, 81–96.
- Guillemin, F., Bombardier, C., & Beaton, D. (1993). Cross-cultural adaptation of health-related quality of life measures: literature review and proposed guidelines. *Journal of clinical epidemiology*, 46(12), 1417-1432.
- Giusti, E., & Befi-Lopes, D. M. (2008). Tradução e adaptação transcultural de instrumentos estrangeiros para o Português Brasileiro (PB). *Pró-Fono Revista de Atualização Científica*, 20(3), 207-210.
- Hambleton, R. K., & Patsula, L. (1998). Adapting tests for use in multiple languages and cultures. *Social indicators research*, 45(1-3), 153-171.
- Love, A. M. A. (2016). *Development of a Self-Efficacy Scale for Teachers Who Teach Kids With Autism Spectrum Disorder* (pp. 1–64). <https://doi.org/10.13023/ETD.2016.082>
- Malinen, O. P., Savolainen, H., & Xu, J. (2012). Beijing in-service teachers' self-efficacy and attitudes towards inclusive education. *Teaching and Teacher Education*, 28(4), 526-534.
- Malinen, O., Savolainen, H., Engelbrecht, P., Xu, J., Nel, M., & Nel, N. (2013). Exploring teacher self-efficacy for inclusive practices in three diverse countries. *Teaching and Teacher Education Journal*, 33, 34–44. <https://doi.org/http://dx.doi.org/10.1016/j.tate.2013.02.004>
- Matos, I. D. (2013). Teoria dos grafos no ensino básico e secundário. Universidade de Aveiro. *Recuperado de https://owl.english.purdue.edu/owl/resource/560/09.*
- Mattos, P., Segenreich, D., Saboya, E., Louzã, M., Dias, G., & Romano, M. (2006). Transcultural adaptation of the Adult Self-Report Scale into Portuguese for evaluation of adult attention-deficit/hyperactivity disorder (ADHD). *Rev Psiq Clín*, 33(4), 188-94.
- Nicolino, Victor; Zanotto, M. (2010). Revisao historica de pesquisas em analise do comportamento e educacao especial/inclusao publicadas no jaba entre 2001 e 2008. *Psicologia: Teoria E Pratica.*, 12(2), 51–79.
- Nougaret, A. A., Scruggs, T. E., & Mastropieri, M. A. (2005). Does teacher education produce better special education teachers?. *Exceptional Children*, 71(3), 217-229.
- Nina, K. C., Ramos, E. M., Ramos, M. F. H., Silva, S. S., Fernandez, A. P., & Pontes, F. A. R. (2016). Sources of Self-Efficacy in Teachers Fuentes de autoeficacia en profesores. *Revista de Psicología*, 25(1), 1–20.
- Palmer, D. (2006). Durability of changes in self-efficacy of preservice primary teachers. *International Journal of science education*, 28(6), 655-671.
- Sharma, U., Forlin, C., & Loreman, T. (2008). Impact of training on pre-service teachers' attitudes and concerns about inclusive education and sentiments about persons with disabilities. *Disability and Society*, 23(7), 773–785. <https://doi.org/10.1080/09687590802469271>
- Sharma, U., Loreman, T., & Forlin, C. (2012). Measuring teacher efficacy to implement inclusive practices. *Journal of Research in Special Educational Needs*, 12(1), 12–21. <https://doi.org/10.1111/j.1471-3802.2011.01200.x>
- Sharma, U., Shaukat, S., & Furlonger, B. (2015). Attitudes and self-efficacy of pre-service teachers towards inclusion in P akistan. *Journal of Research in Special Educational Needs*, 15(2), 97-105.

- Song, J. (2016). Inclusive Education in Japan and Korea – Japanese and Korean Teachers’ Self-Efficacy and Attitudes Towards Inclusive Education. *Journal of Research in Special Educational Needs*, 16, 643–648. <https://doi.org/10.1111/1471-3802.12324>
- Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and teacher education*, 17(7), 783-805.
- Tschannen-Moran, M., & Gareis, C. R. (2004). Principals’ sense of efficacy: Assessing a promising construct. *Journal of Educational Administration*, 42(5), 573–585. <https://doi.org/10.1108/09578230410554070>
- Winter, E. C. (2006). Preparing new teachers for inclusive schools and classrooms. *Support for learning*, 21(2), 85-91.

Funding: This study was financed by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) - Finance Code 001.

Authors' participation: a) Conception and design of the work; b) Data acquisition; c) Analysis and interpretation of data; d) Writing of the manuscript; e) Critical review of the manuscript. K.C.F.N. has contributed in a,b,c,d; S.S.C.S. in a,e.; F.A.R.P. in c,e.

Scientific editor in charge: Dra. Cecilia Cracco

Appendix I

Brazilian version translated and adapted from The Teacher Efficacy for Inclusive Practices Scale (TEIP) by Sharma, Loreman, & Forlin, 2012.

	1 Discordo totalmen te	2 Discordo	3 Discordo em parte	4 Concord o em parte	5 Concordo	6 Concordo totalmente
	DT	D	DP	CP	C	CT
1. Consigo criar expectativas claras relacionadas ao comportamento dos alunos.						
2. Sou capaz de acalmar um estudante que é disruptivo (como gritar, jogar objetos nos colegas, levantar do lugar sem autorização) ou barulhento.						
3. Consigo fazer os pais se sentirem à vontade de vir à escola.						
4. Consigo orientar as famílias a ajudarem os seus filhos a se saírem bem na escola.						
5. Consigo avaliar, com rigor, a compreensão dos alunos acerca do que ensinei.						
6. Consigo fornecer desafios apropriados a alunos muito capazes.						
7. Tenho confiança na minha habilidade de prevenir comportamentos disruptivos em sala de aula, antes que ocorra.						
8. Consigo controlar comportamentos disruptivos (como gritar, jogar objetos nos colegas, levantar do lugar sem autorização) em sala de aula.						
9. Confio na minha capacidade de envolver os pais nas atividades escolares de seus filhos com deficiência.						
10. Sou confiante ao desenvolver atividades de aprendizagem que contemplem as necessidades individuais de alunos com deficiência.						
11. Sou capaz de fazer com que as crianças sigam as regras da sala de aula.						
12. Posso colaborar com outros profissionais (por exemplo, professores itinerantes, ou seja, aquele professor que prestam assessoria as escolas regulares que possuem alunos com necessidades educativas especiais incluídos, e fonoaudiólogos) na elaboração de planos educacionais para alunos com deficiência.						
13. Sou capaz de trabalhar em conjunto com outros profissionais e funcionários (por exemplo, auxiliares e outros professores) para ensinar estudantes com deficiência na sala de aula.						

14. Confio na minha capacidade de fazer com que alunos trabalhem juntos em pares ou em pequenos grupos.						
15. Consigo usar várias estratégias de avaliação (por exemplo, testes adaptados, avaliação baseada no desempenho, etc)						
16. Sou confiante ao repassar informações a outras pessoas que sabem pouco sobre leis e políticas relacionadas à inclusão de estudantes com deficiências						
17. Sou confiante ao lidar com estudantes que são fisicamente agressivos						
18. Sou capaz de apresentar uma explicação alternativa ou um exemplo quando os alunos estão confusos.						