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CULTURAL ADAPTATION OF A SCREENING INSTRUMENT TO DETECT DEVELOPMENTAL DELAYS IN ATIKAMEKW CHILDREN

Clinicians and researchers interested in screening for developmental delays among First Nations children face the lack of measuring instruments designed and validated for them. The use of measuring instruments not taking account of linguistic, cultural and social aspects characterizing a particular cultural group is an issue as to the validity of the results.

A study from Findlay and al., published in 2014, indicates the need to establish specific standards for children of Canadian First Nations rather than resorting to those developed for the Canadian children population in general. This study highlights the probability that the age of acquisition of certain developmental skills differs among First Nations children. Longitudinal studies and surveys of Canadian and Quebec children have excluded those of First Nations because of the lack of culturally appropriate instruments. What is known then about the development of these children? On a developmental aspect, what vulnerabilities do they have? With which measuring instruments can they be evaluated?

This article reports the translation and adaptation of *Ages, Stages Questionnaires-3* (Squires and Bricker, 2009) with children aged 48 and 54 months (4 years and 4 years and 6 months) living in an Atikamekw community. The first part provides a general definition on developmental delays and screening. A description of the tool used is then proposed. The second part outlines the linguistic and cultural aspects to consider in a cross-cultural adaptation process of a measuring instrument. Finally, we will

expose the method used to achieve cross-cultural adaptation and key adjustments that were made to the initial versions.

DEFINITIONS AND DESCRIPTION OF THE TOOL USED

Developmental delay and screening

Developmental delays are defined as a delay or slow acquisition of developmental skills and adaptive behaviours that appear within one or in many spheres of development. Development spheres concern communication (language), gross and fine motor skills, problem solving (cognitive development), and individual or social skills (autonomy and socio-emotional development). Delay are usually reversible

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THE CROSS-CULTURAL ADAPTATION METHOD APPLIED

The method used for the purpose of this study was largely inspired by the one proposed by Vallerand (1989). This method involves seven steps of which the first three concern the translation and adaptation of the test.

Phase 1: Preparation of the Preliminary Version

The first step in cross-cultural adaptation was to translate and adapt the questionnaires from the source language (French) to the target language (Atikamekw). A committee composed of eleven people, consisting of ten educators from a childcare centre and the lead researcher, was organized to do the work. Guidelines were given to the committee. It was the adaptation of a guide developed by Hambleton and Zenisky (2011) which aims at supporting the adjustment process of tests. The elements contained in this guide focus on grammar and sentences, items' format, the equipment used and other aspects of culture. The second stage of Phase 1 was to perform reverse translation (or back translation) of questionnaires (from Atikamekw to French). The four people involved were members of the educational services staff in the community. Their work was individual.

Phase 2: Assessing the preliminary version and preparing the experimental version

This step was to review the translated versions (French-Atikamekw) and reverse translations (Atikamekw-French) in order to compare the translated items and assess divergences. This work was achieved to create the experimental version. This step was completed through a committee-oriented approach. This committee was composed of four members. An adaptation of Hambleton and Zenisky's guide (2011) cited earlier was also proposed to them.

Phase 3: Pre-testing the experimental version

This phase was to verify comprehension of the experimental version's items (questions). This audit was conducted among parents, educators, and children. In total, three parents, two teachers, and three child-

ren participated in the validation of the 48 months and 54 months experimental version questionnaires.

The main adaptations to the 48 months and 54 months (4 years and 4 years and 6 months) questionnaires

The questionnaires are bilingual (French-Atikamekw). The questions for the children are in Atikamekw. The guidelines for users (parents, teachers) are in French. Children have the opportunity to respond in both languages. Some guidelines of the French version were revised because of second language context. Some items were withdrawn for their lack of cultural match. This is the case of an item in the "individual and social skills" domain in the 48-month questionnaire. The original item is to verify the child's ability to answer a number of questions concerning his first and last name, age, gender, the name of the village where he lives and his telephone number. Issues related to the family name and the name of the village were removed, since it is not common for children of this age to know such information; the question about the phone number was rejected, since many households do not have access to telephone service. Another adaptation is the addition of apparatus to certain items in the Atikamekw versions. For example, for one of the items in the "Communication" area of 48 and 54-month questionnaires, photos are used to verify the use of plural words. One item in the "Troubleshooting" domain was modified to better match the Atikamekw educational context. Thus, it is expected that children count to ten instead of fifteen. Another adaptation is made on the preparation of a package containing the necessary administration apparatus for the parents. The designers of the test do not offer such a package.

CONCLUSION

This article described the methodology used for the translation and adaptation of *Ages, Stages Questionnaires-3* for Atikamekw children aged 48 and 54 months. The linguistic and cultural aspects to be taken into account to promote equivalence between source and target versions were exposed. Items in the fields of communication, problem solving, and individual and social skills were adapted to be compatible with the Atikamekw culture. The adjustments made have also contributed to increase the equivalence between the two versions.

