

## VFCS, Visual Function Classification System Translation Protocol

The VFCS, as developed and published by Drs. Giovanni Baranello, Sabrina Signorini, Francesca Tinelli, Andrea Guzzetta, Emanuela Pagliano, Andrea Rossi, Maria Foscan, Irene Tramacere, Domenico M Romeo, Daniela Ricci and the VFCS Study Group\*

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### Guidelines for translation

The following guidelines are based on WHO recommendations, publications, and expert opinion for a translation and cultural adaptation/interpretation protocol. International guidelines recommend 5 steps in the translation process:

#### Step1: Forward translation: from the original language to the target language

Should be done by at **least 2 independent translators**, preferably translating to their mother tongue (to better reflect nuances of the language). It is suggested to have one translator aware of the concept of the measure and one translator naïve to the concept. In case there is a doubt about wording, commentaries by the translator should be written down.

#### Step2: Synthesis of the forward translation into one version

Any discrepancies between the 2 translations should be resolved and discussed between the original translators. A written **brief report** of this discussion and conclusions should be written down. Based on the 2 translations and the discussion, a forward version is created.

#### Step3: Back translation

**Two independent translators** translate the forward version from the target language back to the original (English) language. Preferably it should be performed by bilingual translator into their mother tongue language. In case there is a doubt about wording, commentaries by the translator should be written down. It is suggested to have one translator aware of the concept of the measure and one translator naïve to the concept. A written **brief report** of this discussion and conclusions should be written down.

#### Step4: Expert committee review- brief teleconference meeting

The meeting will review the two reports produced during forward and backward translations and any comments remaining. Experts should include the forward and backward translators, experts who are familiar with the construct of interest, a language professional/methodologist, and if possible, the developer/s of the System. Goal= reach a consensus on discrepancies and produce the pre-final version. A written report of the synthesis will be done.

#### Step5: Pretesting

The pre-final version will be pilot-tested with a small-sample (10 at minimum, ideally 30) of clinicians (individual representatives who will be administering/documenting).

Each of the 10 minimum (ideally 30) clinicians (in each respective language) should provide feedback (verbally, phone or written) about what they thought of the meaning of each item is and how they chose their answer. (i.e, what they thought the question is asking, whether they could repeat the

question with their own words, what came to their mind when they heard a particular phrase or term).

**International guidelines sources:** doi:10.1371/journal.pone.0127050; doi: 10.4103/sja.SJA\_203\_17; doi: 10.1097/00007632-200012150-00014

**NB1: Instructions to translators (forward and backward):**

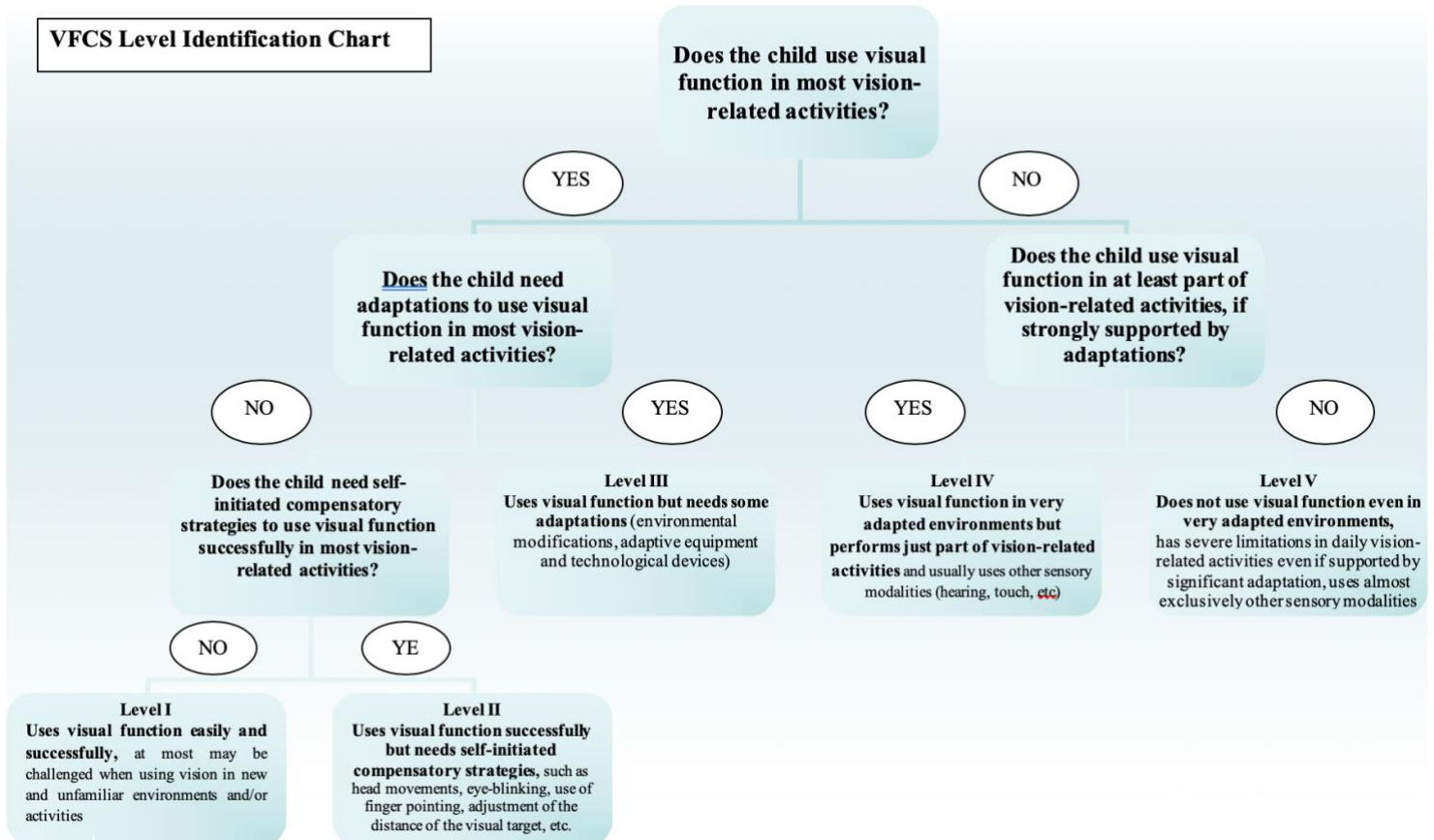
- Emphasize conceptual translation (conceptual equivalent of a word or a phrase) rather than literal translations (not a word-for-word translation). They should consider the definition and attempt to translate it in the most relevant way.
- Use natural and acceptable language for the broadest audience. Avoid the use of jargon.
- Do not use offensive terms
- Strive to be simple, clear and concise

**NB2: WHO proposed guidelines in which they proposed only 1 translator for step 1 and 3.**

([https://www.who.int/substance\\_abuse/research\\_tools/translation/en/](https://www.who.int/substance_abuse/research_tools/translation/en/))

## What to translate

1. The VFCS Level Identification (Flow) Chart
2. The 5 levels of the classification and definitions, with « distinction between levels » explanation



## VECS LEVELS

### **LEVEL I: Uses visual function easily and successfully in vision-related activities.**

At most, children in Level I may be challenged when using their vision in unfamiliar and/or crowded environments and/or new activities, but they do not consistently need compensatory strategies or adaptations.

### **LEVEL II: Uses visual function successfully but needs self-initiated compensatory strategies.**

Children in Level II consistently need self-initiated compensatory strategies to perform vision-related activities. They may avoid or rush through some activities requiring visual skills; however, their visual difficulties do not restrict or only mildly restrict their independence in daily life.

### **LEVEL III: Uses visual function but needs some adaptations.**

#### ***Distinctions between Levels I and II***

*The difference between Levels I and II is the need for self-initiated compensatory strategies to use visual function consistently and independently in vision-related activities. Children in Level I may show at most some delay for example in recognizing new objects or unfamiliar faces, or in exploring unfamiliar environments. Children in Level II perform almost the same activities as children in Level I, but they typically show self-initiated compensatory strategies, such as head movements (e.g. rotation) or adaptation of head position in order to facilitate visual target localization or to improve eye movements quality; eye-blinking or use of finger pointing to better explore an image in particular if it's very complex (with a lot of details, different prospects and sizes, unusual lighting conditions, different objects orientation or objects overlap); adjustment of the distance of the visual target or of the object to have a better visual focus or to stabilize fixation; placement of visual targets (for example toys or school equipment) to a specific area of visual field to facilitate the activity.*

#### ***Distinctions between Levels II and III***

*The difference between Levels II and III is the need for assistance in adapting the environment to consistently use vision functionally in daily activities. Children in Level II adopt spontaneous (i.e. self-initiated) strategies, managing to use vision functionally in most vision-related activities. Children in Level III need to have the environment adapted and/or the activity modified for them in order to address vision-related activities. They typically need high contrast backgrounds (e.g. chessboard patterns; black and white, yellow and blue, red and white patterns), optimized size and contrast of the visual target, reduced visual crowding, adjusted distance of visual target, and/or reading desks, and/or magnifying systems and other visual technological devices.*

Children in Level III need, in addition to self-initiated compensatory strategies, some adaptations to consistently use vision functionally and perform most vision-related activities in daily life. Adaptations include any modifications made to the visual environment, and the use of adaptive equipment and/or technological devices in order to enhance visual function.

**LEVEL IV: Uses visual function in very adapted environments but performs just part of vision-related activities.**

Children in Level IV can use vision when significantly supported through adaptations, however their use of vision is inconsistent, they perform part of vision-related activities, and they often use other sensory modalities to help initiate and maintain visual function.

**LEVEL V: Does not use visual function even in very adapted environments.**

Children in Level V have severe limitations in daily vision-related activities even when supported by significant adaptations; they use almost exclusively other sensory modalities (hearing, touch, etc).

***Distinctions between Levels III and IV***

*The difference between Levels III and IV is that children in Level III use visual function in a consistent way, and do not usually need other sensory modalities to perform activities. Children in Level IV, in addition to the adaptations already described for Level III, typically take great advantage from the adjustment of lighting conditions to facilitate vision, such as for example illuminating the target objects in semi-dark conditions. Their use of vision is restricted and inconsistent, and they are able to perform only part of vision-related activities. For example, they show discontinuous eye contact, fixate in extremely adapted situations, and recognizes faces or objects using also other sensory modalities. Visual monitoring is very difficult without the integration of other sensory modalities.*

***Distinctions between Levels IV and V***

*The difference between Levels IV and V is the child's ability to perform part of vision-related activities if strongly supported by adaptations. Children in Level IV sometimes use visual function if supported by a highly adapted environment and other sensory modalities (hearing, touch, etc). Children in Level V typically do not perform vision-related activities, and they always need other sensory cues.*