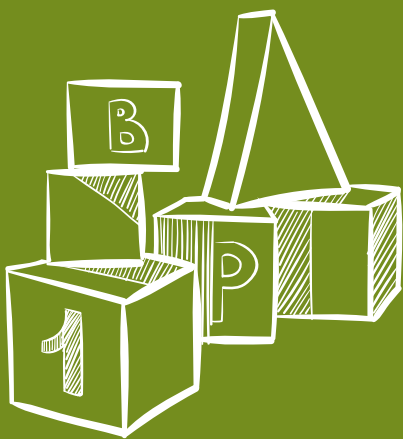


# Toys & games Usability Evaluation Tool

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Preface by Serenella Besio (LUDI)



# Manual & Questionnaire English version

# 1. General overview

## 1.1. What is TUET?

TUET (Toys & games Usability Evaluation Tool) is a method of analysis to evaluate play materials by considering the physical characteristics that are relevant for children with hearing, visual, or upper-limb motor impairments.

## 1.2. Why has TUET been created?

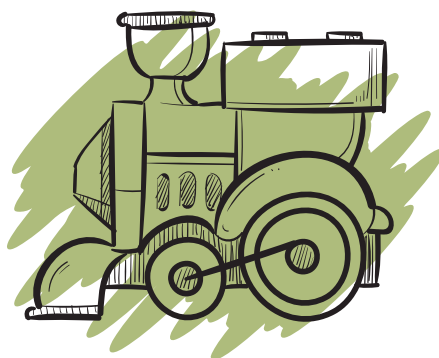
TUET has been created, on the one hand, because investigations carried out by AIJU (Spain) and FM2J (France) have shown that toys and games on the market manifest a continued lack of accessibility and usability for children with some type of hearing, visual or motor impairment. And, on the other hand, in response to a demand from parents and therapists looking for more accessible play materials for these children.

From 2007 to 2017, a total of 2,866 mainstream toys and games were analysed by AIJU in collaboration with ONCE and CEAPAT. Only 21% of them were found to be usable for children with motor impairment, 44% for children with visual impairment, and 86% for children with hearing impairment, without any adaptations or external assistance to play. Additionally, only 5% of the toys and games were found to be simultaneously accessible for all three impairments. In France, a similar percentage was found by FM2J. Among all the 1,600 toys and games FM2J have analysed since 1996, only 8% have received the 'Handilud' distinction, which indicates that the toy is considered usable for children with some kind of impairment.

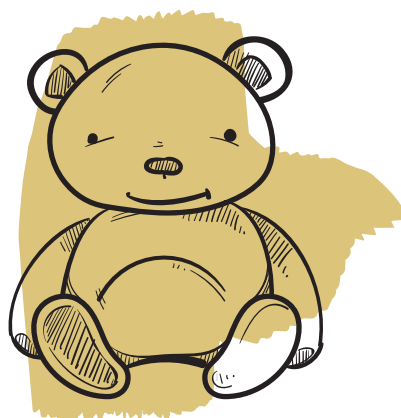
## 1.3. What principles is TUET based on?

TUET is based on Universal Design principles as well as on previous research on toys and games for children with impairments carried out by: FM2J (1996–2017); AIJU (1991–2017); ONCE (2007–2017); CEAPAT (2007–2017); Lekotek (1980–2017); and the University of Buffalo, Let's Play Projects (1995–2006).

Universal Design is a philosophy for designing products that are usable by people with the widest possible range of functional capabilities. All children are different, not only in terms of their abilities, but also in relation to their activities and play preferences; to imagine that a product could be usable for all of them is simply impossible. Nevertheless, the more Universal Design features a toy or game has, the greater likelihood it has of being played with successfully by a broad range of children, including those with some kind of impairment.



Technical data sheet	
<b>Title</b>	Toys & games Usability Evaluation Tool (TUET).
<b>Authors</b>	Costa, M. (AIJU), Périno, O. (FM2J), Ray-Kaeser, S. (HES-SO EESP).
<b>Purpose</b>	Review the physical characteristics of a toy or a game in order to make a decision about its usability for a specific group of children with hearing, visual or upper-limb motor impairment.
<b>Application</b>	Toy designers, engineers, teachers, toy librarians, therapists or parents.
<b>Field of application</b>	Toys and games, high or low tech, prototypes or commercialised products that have at least some physical element (not including purely digital games).
<b>Time of application</b>	From 10 to 30 minutes depending on the complexity of the play material evaluated.
<b>Material</b>	PDF or printed version.



## 2. TUET questionnaire structure, definitions and instructions for use

TUET is composed of 33 items. The first part (A) defines the specifics of the toy or game being evaluated. The second part (B) is used to evaluate the usability of the toy or game for the intended user, using three tables, each related to one of the three impairments: 1) Hearing, 2) Visual, and 3) Upper-limb Motor Impairment.

The following definitions and instructions enable the questionnaire to be filled in more easily.

### 2.1. PART A: Analysing the toy/game

Before starting the analysis of a toy/game, it is essential to examine it, handle it, play with it and describe some of its main aspects. The analysis must be conducted in detail by observing every aspect and function of the toy and answering questions A1, A2 and A3. The evaluation concerns only the toy/game, not the packaging.

**A1. Name of the toy and the manufacturer:** Write the name of the toy/game and the manufacturer, exactly as they appear on the packaging.

**A2. Play purpose of a toy/game:** Describe its purpose as defined by the manufacturer and think about where the pleasure of play comes from. What is the origin of the enjoyment or fun? Here are some examples of three different toy cars that have different play purposes:

**Example 1:** A car which has the shape of a telephone with wheels, the purpose of which is to obtain auditory and visual effects.

**Example 2:** A realistic small car, to play 'garages' or 'races'.

**Example 3:** A cardboard car, to play a board game.

Each of these toys/games corresponds to a different type of play activity, which in turn involves a distinct set of skills.

**A3: Toy/game category according to C.O.L. classification:** In our three previous examples, the telephone-car is a medium for sensory play, the small realistic car is a medium for symbolic play, the cardboard car is for a game with rules. From this, we can classify these play objects according to four main categories: toys for exercise play, toys for symbolic play, toys for rule-based games or toys for assembling play. For each toy/game, only one of these four categories must be marked. To decide which category, it is necessary to determine what the predominate play purpose is for the particular toy/game.

### 2.2. PART B. Usability of the toy/game for hearing, visual and motor impairments

Toys and games must be evaluated thinking about their intended user. If a child has a moderate visual impairment, the analysis will be different to that made for a completely blind child. It is not the same to evaluate a toy's suitability for use by a child with an upper-limb motor impairment as for its suitability for use by a child with a hearing impairment. This is why the analysis of toys and games is performed by using three separate tables, each focusing on a different type of impairment.

## Table 1. Hearing impairments: partially hearing impaired – deaf

Hearing impairments involve hearing loss that prevents a person from receiving, through the ears, external auditory stimuli in their entirety. Its causes may be congenital or acquired. Children with hearing loss may have difficulty with reading and mathematical concepts. There are four levels of hearing impairment: mild, moderate, severe or profound.

- Partially hearing impaired refers to people with hearing loss ranging from mild to severe. It can affect one ear or both ears and leads to difficulty in hearing conversational speech or loud sounds.
- Deaf refers to people with profound hearing loss, which implies very little or no ability to hear.

### Specific toy/game requirements

*Children with hearing impairments can access a greater quantity of toys and need less help or adaptations than children with visual or motor impairments. They may encounter difficulties when playing with toys and games that have sound effects coming from electronic devices.*

In this case, **for all four levels of hearing impairment**, the audible effects must be accompanied by other effects (lights, pictures, movements, vibrations, etc.). The verbal messages must be accompanied by a transcript or written version. In rule-based games, written/graphic explanations must be very easy to understand.

Finally, the toy must have a volume control mechanism that allows it to be adapted to the user's hearing level, or feature an optional headphone input.

## Table 2. Visual impairments: partial visual impairment – blind / colour-blind

Visual impairments range from partial to total loss of sight. Visual loss in children may be prenatal (congenital anomalies), perinatal (prematurity, asphyxia) or postnatal (traumas, tumours). There are four levels of visual impairment: mild, moderate, severe, and blindness.

- Visually impaired refers to people with a visual impairment ranging from moderate to severe.
- Blind refers to people with total, or nearly total, vision loss.

Colour-blindness is a visual anomaly in which people confuse commonly red and green colours, although sometimes blue. Most colour-blind children, in majority males, are able to see things very clearly but are unable to fully see one or two of these colours.

### Specific toy/game requirements

*Lack of vision causes children to display a lack of motivation towards using objects, as well as a certain passivity. Parents and caregivers should motivate them and invite them to explore toys and games, explain to them where they are, what they are like, how to use them, etc.*

**For moderate levels of visual impairment**, it is advisable that the toy or game should have sensory effects (e.g. sounds, vibration, movements, scents, textures, etc.) in order to motivate and guide children to play. In the case of blind children or those with severe visual impairment, these sensory effects must be realistic and recognisable by touch or hearing.

**For visually impaired children**, the toy/game must have vivid and/or highly contrasting colours. The areas of activation (buttons, knobs, etc.) must be clearly differentiated from the colours of the body of the toy or the background. The toy/game must have different textures, lights or reliefs, relevant for the purpose of the game.

**Example 1:** A doll to dress and undress. Diverse textures for the different pieces of clothing help a child to identify and place them correctly.

**Example 2:** A cloth doll. Different textures help children to identify the parts of its body and face.

The toy/game must have a sufficiently compact/dense structure and a base that is large enough to ensure stability when in use.

**For blind children** or those with severe visual impairment, the toy/game must have a realistic or recognisable overall shape, and its components (knobs, buttons, switches, connectors, pieces, images, etc.) must be easy to identify by touch. The toy pieces or accessories included (e.g. blocks, accessories, clothes, etc.) must be placed in a compartment provided for this purpose, and must be large enough to remain within the child's reach.

**For children suffering from colour-blindness**, red and green should not be used together in board games when play involves being able to differentiate between them.

### Table 3. Upper-limb motor impairments: mild, moderate, severe

Upper-limb motor impairments are physical impairments of a transitory or permanent nature, that limit the motor skills of the upper-limbs and hands. They can be either congenital or acquired and are frequently a consequence of cerebral palsy, spinal muscular atrophy or traumatic brain injury. The possible levels of impairment (mild, moderate, severe) can be related to:

- The physical extension of the impairment (i.e. one or both limbs affected, the presence of spasms).
- How a child uses his hands when handling objects. The following examples are adapted from the manual ability classification system ([www.macs.nu](http://www.macs.nu)):

**Mild:** handles most objects but with somewhat reduced quality and/or speed of achievement.

**Moderate:** handles objects with difficulty.

**Severe:** handles a limited selection of easily managed objects and has limited ability to perform simple actions.

### Specific toy/game requirements

*The way children with motor impairments play mainly depends on their motor skills, their degree of mobility, and the amount and type of play resources they have access to. In general, most of the time they have difficulty manipulating toys and games. For this reason, toys/games that the children can control themselves should be selected.*

**For children with mild to moderate upper-limb impairment:** The toy/game must be easy to manipulate, and its important parts (knobs, buttons, switches, connectors, pieces) must be easy to press, turn on, fit together, grasp, activate, etc. The dimensions and weight of the different elements of the toy/game should allow children to manipulate them easily. In addition, they must be padded or light enough to avoid painful impacts.

**Children with more severe impairment requires** forms with multiple areas for a child to wrap their fingers around, allowing them to hold the toy/game in many positions. The toy pieces and parts should have an easy connection system, employing elements like Velcro or magnets. The toy/game must have a compact/dense structure, and a base that is large enough to ensure stability when in use. The toy's dimensions should allow access for children with wheelchairs, or offer the possibility of being disassembled into modules in order to play with the separate parts on a surface. The parts or pieces of the toy must not be less than 2 cm in width, length and/or depth.

**For any child with upper-limb motor impairment,** being able to activate a toy with a push button is not an isolated action, but the first step towards accessing other devices, such as a computer, a tablet, a communication device, a TV remote control, a light switch, etc. This is why toys with large buttons which the children can push themselves, or that allow an external switch to be added, are highly recommendable for them.

## 2.3. Instructions to fill in the three tables

### Questions in bold: 1.1.1./2.1.1./3.1.1

To answer questions 1.1.1./ 2.1.1./ 3.1.1., we must consider the level of impairment of the group of children the toy/game is intended for. If these children are not able to achieve the play purpose of the toy (A2), we must answer NO as they will not be able to really enjoy the toy/game. In this case, it is best to propose another toy. These questions in bold are very important for making decisions since they allow a correspondence to be established between the skills of a group of children with a specific impairment and the play purpose of a toy/game.

### Responses: 'Yes', 'No', or 'Does Not Apply'

The first step of the analysis consists in verifying whether the item is relevant for the particular toy/game. For example, for visual impairment, in item 2.2.3. 'The board game avoids using red and green together (colour-blindness)', if the toy being evaluated is not a board game, then tick the box 'does not apply' and go to the next question. Another example, for hearing impairment, in item 1.2.1, 'Toy sound effects are accompanied by other effects (lights, pictures, movements, vibration, etc.)', if the toy being evaluated does not have any sound elements (e.g. a doll which makes no sounds) then tick the box 'Does Not Apply'. If the toy does produce some kind of sound, then make an evaluation by ticking the box in either the 'Yes' or 'No' column, depending on whether you believe the toy or game conforms to this statement or not.

### Calculating the results of the analysis

To complete the analysis, add up the total number of answers in the 'Yes' and 'No' columns (ignore the 'Does Not Apply' column) and write a total at the bottom of each column. This sum is then used to assess whether the toy/game is '**Usable**' (more answers in the 'Yes' column than the 'No' column) or '**Unusable**' (more or the same amount of answers in the 'No' column as in the 'Yes' column).

The more positive responses obtained in the table, the greater the level of usability of the toy/game for the intended target group. In the case of associated impairments, the results of two or three sections (Tables 1, 2 or 3) must be added up to obtain a final result.

Positive responses in the three tables means a great level of usability for the toy/game; it is able to address a broad range of children, with or without impairments.

However, with certain groups of children a more qualitative type of analysis will be necessary. Sometimes, despite having a high number of positive responses, a toy/game may be considered 'unusable' because it does not meet an essential criterion for these children to be able to play with it.

The evaluation must be carried out taking into account the content of the answers more than the simple sum of 'Yes' or 'No' responses. It is essential to bear in mind the play purpose of the toy/game to be able to carry out the final evaluation. As a general rule, when the quantitative results make you hesitate between 'Unusable' and 'Adaptable', it is advisable to select 'Adaptable' and propose adaptability solutions for the toy/game.

### Evaluation: Usable/ Unusable/ Adaptable

A toy/game is **Usable** by the intended target user if it can be used for the purpose for which it was designed and the pleasure of play obtained.

A toy/game is **Adaptable** if it can be made 'Usable' with a simple modification that does not alter its primary function or its play purpose. An example of adaptation is to incorporate coloured Velcro strips on the buttons of a toy to make them easier to identify. However, when a doll is too small so that it becomes necessary to propose a larger one, then this is not an adaptation, it is another toy!

Some toys/games are definitely **unusable** for certain children. The best thing to do when a toy or game is unusable is to try to find another toy in the same category (A3 - C.O.L) that is usable for the child or children in question.

*Finally, remember that TUET is just a tool. It can be a significant help when creating or selecting games and toys for the pleasure of playing, but it can not replace the decisions of adults who have direct knowledge of the children and their abilities.*





**Evaluator:** Name or code \_\_\_\_\_ Date \_\_\_\_\_

A.1 **Toy/game:** Name \_\_\_\_\_ Company \_\_\_\_\_

A.2 **Toy/game play purpose:** What is the primary element of fun in the play activity with this toy/game?  
(For example, for a ball, the pleasure is in throwing and catching it, bouncing it, etc.)  
List in order of importance the different elements that can arouse the play pleasure, to specify what is the main play purpose or objective of play with this toy/game. Keep this purpose in mind when making the final evaluation of the toy/game.

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A.3 **Toy/game play Category:** How would you classify this toy/game?  
Tick **one** of the four main categories according to C.O.L. classification. In order to determine a category, **it is necessary to look for which aspect predominates in the toy/game.**

- Toys for Exercise Play:** Toys used during sensory and motor activities for the pleasure in obtaining immediate effects or results (sensory toys / motor toys / handling toys).
- Toys for Symbolic Play:** Toys leading the player to recreate actions, situations, events, or scenes, using their imagination, and inspired by their knowledge and understanding of reality (role-playing toys / staging toys / representation toys).
- Rule-based Games:** Rule-based games involve a set of instructions or norms that the players must know and follow in order to achieve the intended objective (association games / circuit games / expression games / combination games / skill and sports games / strategy games / chance games / question-answer games).
- Toys for Assembling Play:** Separate pieces that can be assembled in order to build a new creation (construction toys / positioning toys / experiment toys / production toys).

**B. USABILITY OF THE TOY/GAME**

Table 1 **Relevant items for children with HEARING IMPAIRMENT**  
**Partially hearing impaired – deaf**

<p><b>1.1 INTENDED PLAY PURPOSE OF THE TOY/GAME</b></p> <p>1.1.1 The toy/game play purpose can be achieved using mainly visual and motor abilities, or residual hearing. (Keep in mind the degree of impairment of the intended user and answer YES if you consider that the intended user can achieve the play pleasure with this particular toy/game).</p>	<table border="0"> <tr> <td>YES</td> <td>NO</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
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<p><b>1.2 SENSORY EFFECTS</b></p> <p>1.2.1. The toy/game's sound effects are accompanied by other effects (lights, pictures, vibrations, movements, etc.).</p> <hr/> <p>1.2.2 The toy/game has a volume control and/or an optional output for headphones.</p> <hr/> <p>1.2.3 The audible verbal messages are intelligible and/or accompanied by a written version.</p> <hr/> <p>1.2.4. In rule-based games, the written/graphic explanations are easy for the intended user to understand.</p>	<table border="0"> <tr> <td>DOES NOT APPLY</td> <td>YES</td> <td>NO</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	DOES NOT APPLY	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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YES  NO

**CONCLUSION:** Considering the degree of HEARING impairment of the intended user, the toy/game is:

USABLE     UNUSABLE     ADAPTABLE

Are there adaptability solutions that will not change the play purpose of the toy/game? What are they?

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Table 2 **Relevant items for children with VISUAL IMPAIRMENT**  
**Partially visually impaired – blind / colour-blind**

<p><b>2.1 INTENDED PLAY PURPOSE OF THE TOY/GAME</b></p> <p><b>2.1.1 The toy/game play purpose can be achieved using mainly hearing and motor abilities, or residual vision. (Keep in mind the degree of impairment of the intended user and answer YES if you consider that the intended user can achieve the play pleasure with this particular toy/game).</b></p>	<table style="width: 100%; text-align: center;"> <tr> <td>YES</td> <td>NO</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
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<p><b>2.2 COLOURS AND TEXTURES</b></p> <p>2.2.1 The toy/game has vivid and/or highly contrasting colours (e.g. yellow and dark blue / black and white / red and white).</p> <hr/> <p>2.2.2 The relevant areas of use (buttons, knobs, holes) of the toy/game are clearly contrasted and/or easily differentiated from the background.</p> <hr/> <p>2.2.3 In board games, the use of red and green together is avoided (colour-blindness).</p> <hr/> <p>2.2.4 The toy/game has different textures, lights, reliefs or materials, which are suitable for the purpose of the toy/game.</p>	<table style="width: 100%; text-align: center;"> <tr> <td>DOES NOT APPLY</td> <td>YES</td> <td>NO</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	DOES NOT APPLY	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<p><b>2.3 FORM AND COMPONENTS</b></p> <p>2.3.1 The toy/game (overall structure) has a realistic or recognisable form, easy to identify by touch.</p> <hr/> <p>2.3.2 The specific components of the toy/game (e.g. knobs, buttons, switches, connectors, pieces, images, etc.) are easy to identify by touch.</p> <hr/> <p>2.3.3 The toy/game is of a sufficiently compact structure or has an anchoring system which prevents the pieces from dismantling at random.</p> <hr/> <p>2.3.4 The toy/game has a base that is large enough to ensure stability when in use.</p> <hr/> <p>2.3.5 The toy/game pieces or accessories included (e.g. blocks, clothes, etc.) are placed in a compartment provided for this purpose, or are large enough (2 cm at least) to remain within the child's reach or sight.</p>	<table style="width: 100%; text-align: center;"> <tr> <td>DOES NOT APPLY</td> <td>YES</td> <td>NO</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	DOES NOT APPLY	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<p><b>2.4 SENSORY EFFECTS</b></p> <p>2.4.1 The toy/game has sensory effects in addition to, or instead of visual messages (e.g. sounds, vibration, movements, scents, etc.).</p> <hr/> <p>2.4.2 The toy/game has realistic sound effects or audible messages (e.g. cows moo; they do not meow).</p> <hr/> <p>2.4.3 The toy/game actions and visual effects are clearly recognisable by touch or hearing (e.g. elements that appear and disappear).</p>	<table style="width: 100%; text-align: center;"> <tr> <td>DOES NOT APPLY</td> <td>YES</td> <td>NO</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	DOES NOT APPLY	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**CONCLUSION: Considering the degree of VISUAL impairment of the intended user, the toy/game is:**

USABLE     UNUSABLE     ADAPTABLE

Are there adaptability solutions that will not change the play purpose of the toy/game? What are they?

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Table 3 **Relevant items for children with UPPER-LIMB MOTOR IMPAIRMENT mild, moderate, severe**

<p><b>3.1 INTENDED PLAY PURPOSE OF THE TOY/GAME</b></p> <p>3.1.1 The toy/game play purpose can be achieved using mainly hearing, visual, and lower-limb motor abilities, or a moderate level of upper-motor abilities. (Keep in mind the degree of impairment of the intended user and answer YES if you consider that the intended user can achieve the play pleasure with this particular toy/game).</p>	<p>YES      NO</p> <p><input type="checkbox"/>      <input type="checkbox"/></p>
<p><b>3.2 DIMENSIONS AND WEIGHT</b></p> <p>3.2.1 The dimensions of the toy/game, its pieces or accessories are more than 2 cm in length/width.</p> <hr/> <p>3.2.2 The toy/game has a base that is large enough to ensure stability when in use.</p> <hr/> <p>3.2.3 The toy/game's weight is adequate for a child with upper-limb motor impairment to be able to play with it easily.</p>	<p>DOES NOT APPLY      YES      NO</p> <p><input type="checkbox"/>      <input type="checkbox"/>      <input type="checkbox"/></p> <p><input type="checkbox"/>      <input type="checkbox"/>      <input type="checkbox"/></p> <p><input type="checkbox"/>      <input type="checkbox"/>      <input type="checkbox"/></p>
<p><b>3.3 FORM AND COMPONENTS</b></p> <p>3.3.1 The toy/game has multiple areas for a child to wrap his/her fingers around, allowing him/her to hold the toy/game in different positions.</p> <hr/> <p>3.3.2 The toy/game has a compact structure. When it is assembled or ready to play with, it does not dismantle easily.</p> <hr/> <p>3.3.3 The toy/game pieces (e.g. blocks, accessories, clothes, etc.) are easy to assemble, employing a simple connection system like Velcro or magnets.</p> <hr/> <p>3.3.4 The toy/game is soft and padded enough to avoid painful impacts.</p>	<p>DOES NOT APPLY      YES      NO</p> <p><input type="checkbox"/>      <input type="checkbox"/>      <input type="checkbox"/></p> <p><input type="checkbox"/>      <input type="checkbox"/>      <input type="checkbox"/></p> <p><input type="checkbox"/>      <input type="checkbox"/>      <input type="checkbox"/></p> <p><input type="checkbox"/>      <input type="checkbox"/>      <input type="checkbox"/></p>
<p><b>3.4 MOVEMENTS AND GESTURES</b></p> <p>3.4.1 The important parts of the toy/game (such as handles, buttons, switches, connectors, etc.) are easy for the intended user to press, rotate, fit together, grasp, activate, etc.</p> <hr/> <p>3.4.2 The response time of the game can be adjusted to allow actions with slow gestures.</p> <hr/> <p>3.4.3 The buttons to start the toy / game (the audio part, the visual elements, the movements, etc.) can be activated by the intended user.</p> <hr/> <p>3.4.4 The toy/game allows an external switch to be added in order to activate it.</p>	<p>DOES NOT APPLY      YES      NO</p> <p><input type="checkbox"/>      <input type="checkbox"/>      <input type="checkbox"/></p> <p><input type="checkbox"/>      <input type="checkbox"/>      <input type="checkbox"/></p> <p><input type="checkbox"/>      <input type="checkbox"/>      <input type="checkbox"/></p> <p><input type="checkbox"/>      <input type="checkbox"/>      <input type="checkbox"/></p>

YES      NO

**CONCLUSION: Considering the degree of MOTOR impairment of the intended user, the toy/game is:**

USABLE       UNUSABLE       ADAPTABLE

Are there adaptability solutions that will not change the play purpose of the toy/game? What are they?

\_\_\_\_\_

\_\_\_\_\_

The Toys & games Usability Evaluation tool (TUET) offers a new perspective on an under-evaluated subject: the **usability of toys and games for children with disabilities**. It will surely help toy companies, education and rehabilitation professionals, toy librarians, teachers and family members to design, select, and adapt toys and games to meet the needs of all children.

Drawing on an inclusive perspective, this unique tool supports children with the widest range of abilities -especially those with **hearing, visual and upper-limb motor impairments**- to play for the sake of play with easily accessible and usable toys and games. A quick analysis with TUET makes the identification of such play materials possible.

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