



**Enhancing communication skills for
children and adolescents with
intellectual developmental difficulties**

Athens, 16 october 2024



**Supporting the development of
Social communicative abilities
with young people with
intellectual developmental
disabilities**

Christelle Declercq, University of Reims

Annick Comblain, University of Liège

Clinical case

John, a 24-year-old adult with multiple disabilities since birth (motor limitations and moderate IDD).



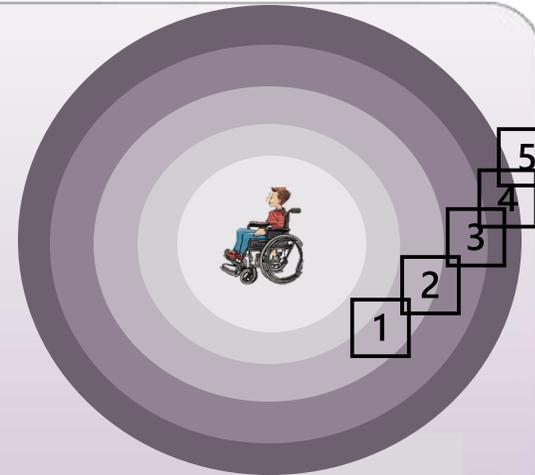
John, a 24-year-old adult, has had multiple disabilities since birth. He lives with his parents, who are his primary caregivers. John's verbal communication is very limited, consisting of isolated words or very simple sentences. He can use a few gestures to supplement his speech, but his overall communication skills remain weak. Those close to him can usually understand him, although his messages are often vague or incomplete.

John is also able to use facial expressions and point to objects to express his needs. However, he becomes easily frustrated when he isn't understood, especially with less familiar communication partners. His social interactions vary depending on who he is talking to, and the communication tools he uses are not always consistent.



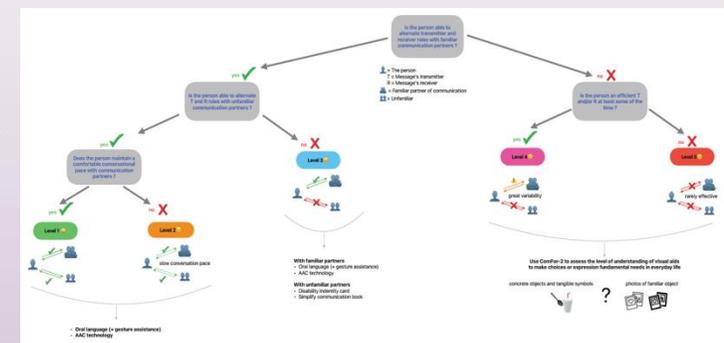
- **What questions could we ask to provide the best possible support to John and his communication partners?**
- **What tools could we use and for what purpose?**

Observations and questionnaires to determine the level of communication in each of the relationship circles



Adapted from Balckstone & Hunt Berg (2003)

Based on this information, we will be able to determine the communication levels for each group, which will then serve as the foundation for identifying the most appropriate tool to implement.



Adapted from Beukelman & Light (2020)

Circle 1 – At home with his parents and sibling

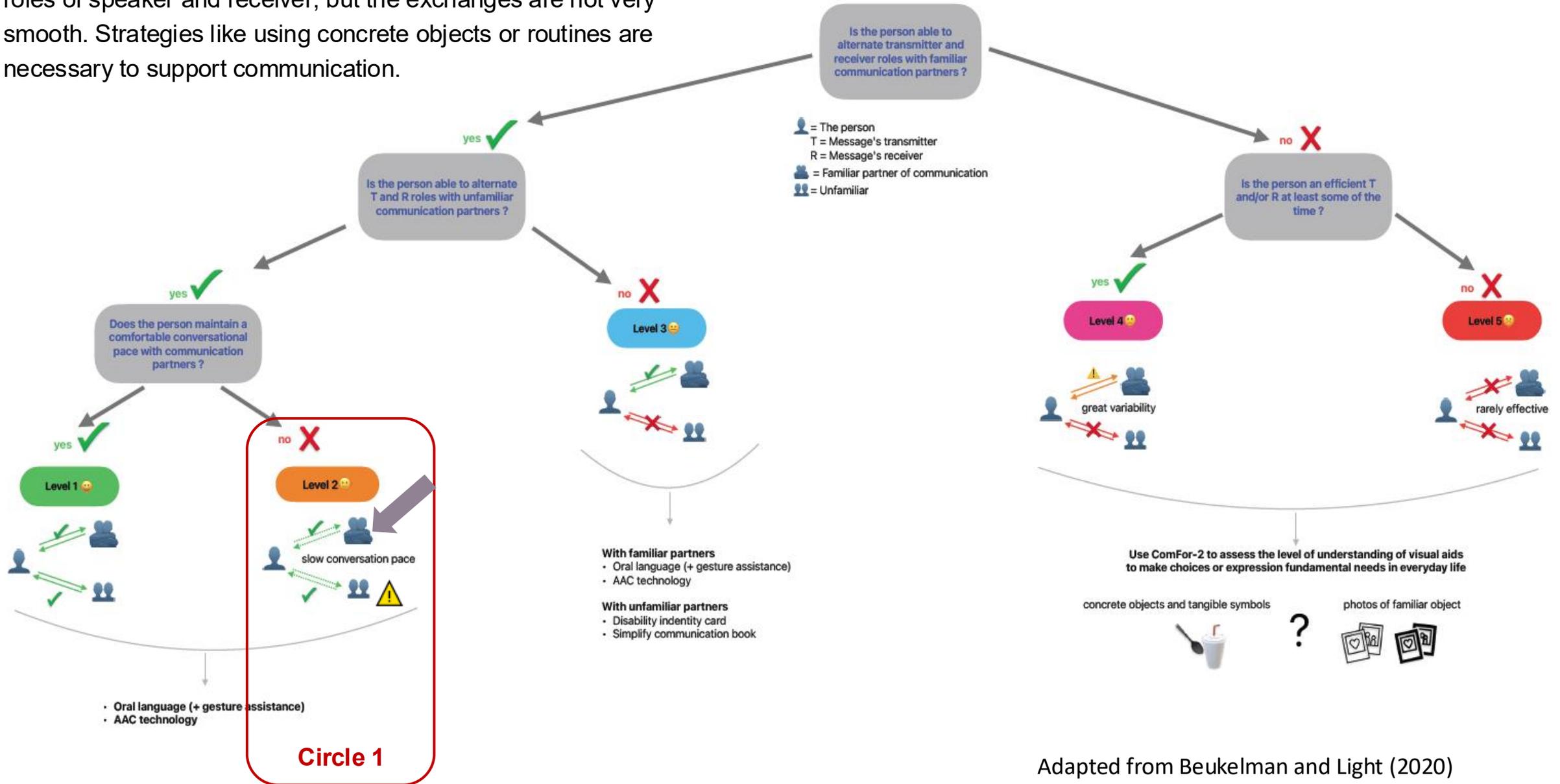
John spends most of his time with his parents and sister. He **can communicate his basic needs**, such as eating, drinking, or going to the bathroom, by using simple words like ‘eat’ or ‘sleep,’ combined with gestures.

His family has learned to interpret his **non-verbal cues**, such as facial expressions and **tone of voice**. For instance, when John says ‘tired’ in a particular tone, they understand that he wants to rest. However, in more **complex situations**, like expressing pain or emotions, John **struggles to find the right words**. His parents sometimes **rely on concrete objects or routines to help facilitate understanding**.

Situation analysis

- **Ability to alternate roles of speaker and receiver:** John is able to alternate between the roles of speaker and listener with his parents and sister, though the exchanges are not always seamless. He supplements his limited speech with simple words and gestures.
- **Conversational fluency:** Conversations with close family members are often lacking in fluidity, as John relies on isolated words and gestures. However, his parents and sister are generally able to understand his intentions due to their deep familiarity with his habits and behaviors.
- **Effectiveness of exchanges:** The exchanges are fairly effective, particularly for addressing simple, immediate needs like eating, drinking, or resting. For more complex requests, misunderstandings are common, requiring the use of support strategies such as established routines or concrete objects.

John is at **Level 2** with his close. He can alternate between the roles of speaker and receiver, but the exchanges are not very smooth. Strategies like using concrete objects or routines are necessary to support communication.



Circle 2 – Close friends or members of the extended family

John sees his aunts, uncles, and a few family friends several times a month. During these gatherings, he tends to be quieter, usually responding with isolated words or simple gestures.

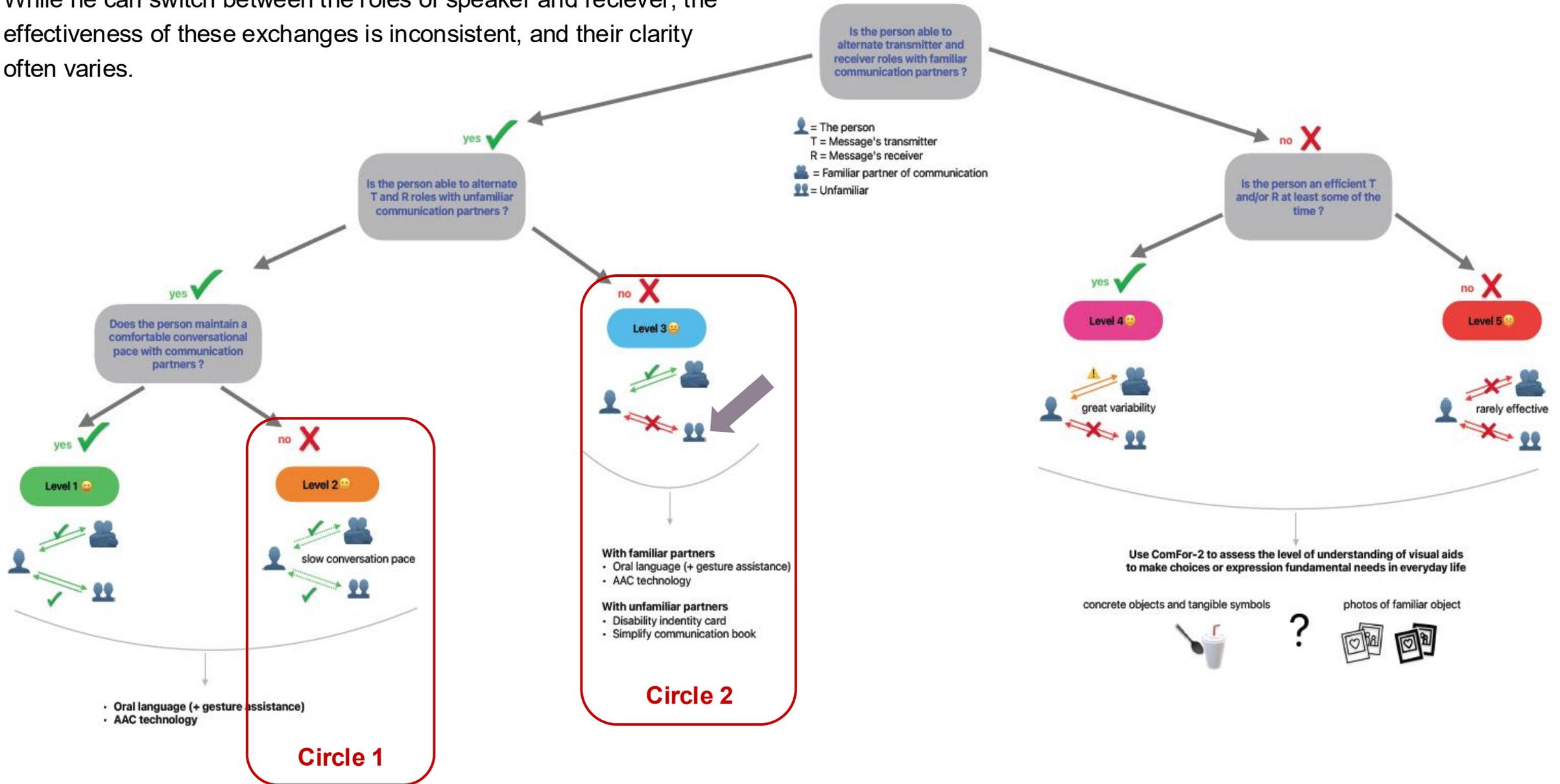
His communication partners in this circle often need to ask closed questions, to which John responds with 'yes' or 'no' or rephrase their questions to ensure he understands. John's sister frequently steps in to clarify what he's saying or to interpret his intentions.

Visual aids, such as photos of familiar people or objects, are sometimes used to help him engage more fully in the conversation.

Situation analysis

- **Ability to alternate the roles of speaker and receiver:** John is able to alternate between speaking and listening, but these interactions require significant support. His friends and family often struggle to fully understand his messages.
- **Conversational fluidity:** Conversations are frequently interrupted and lack smoothness. John often needs to repeat himself or rely on aids like photos or gestures for support, yet misunderstandings still occur.
- **Effectiveness of exchanges:** Communication partners in this circle find it more difficult to understand John, especially when it comes to more nuanced messages. As a result, exchanges are sometimes ineffective without someone close to John stepping in to translate or clarify.

John is at **Level 3** with his close friends and extended family.
 While he can switch between the roles of speaker and receiver, the effectiveness of these exchanges is inconsistent, and their clarity often varies.



Circle 3 – Neighbourhood

John occasionally goes out with his parents in the neighbourhood to do some shopping or attend community events. He knows a few people, like the baker and the neighbour across the street, but **struggles to engage in conversation** with them.

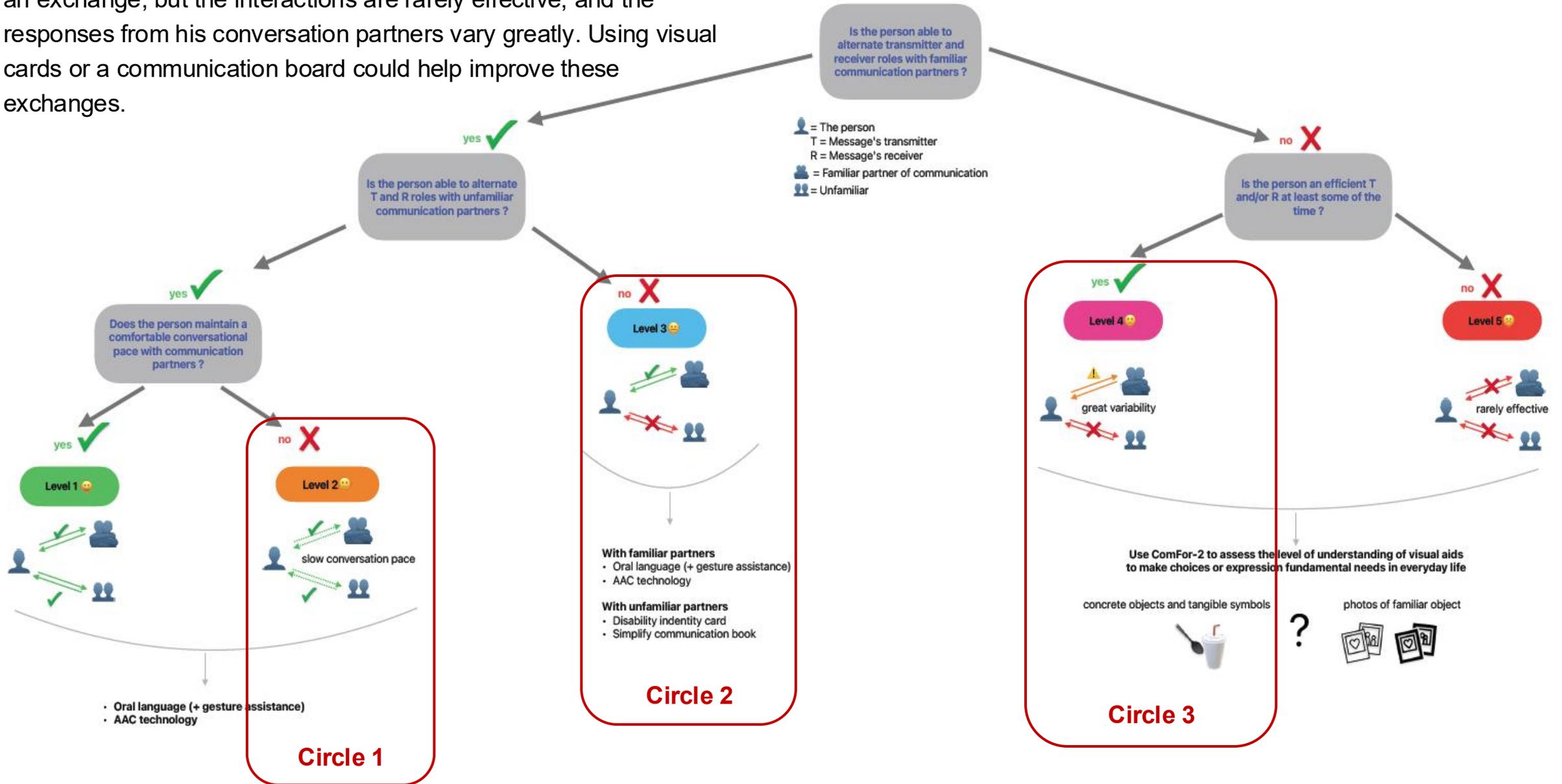
These **interactions are usually limited to basic greetings** like 'Hello' or 'Thank you.'

While people in this circle recognize John, they **lack the ability to interpret his gestures or limited speech**. As a result, these exchanges are often brief and unsatisfying for John, as he is unable to express his needs effectively.

Situation analysis

- **Ability to alternate roles as speaker and receiver:** John has difficulty switching roles with people he doesn't know well. While he can start an exchange with a greeting or a very simple phrase, these interactions tend to be one-sided.
- **Conversational fluency:** Conversations with acquaintances are extremely limited and lack fluidity. John often sticks to polite phrases without expanding the conversation.
- **Effectiveness of exchanges:** These interactions are frequently ineffective, as his communication partners are not accustomed to interpreting his signals. More complex messages are often misunderstood, leading to John's frustration.

John is at **Level 4** with acquaintances. He can occasionally initiate an exchange, but the interactions are rarely effective, and the responses from his conversation partners vary greatly. Using visual cards or a communication board could help improve these exchanges.



Circle 4 – Professionals and educators

John is supported by a special educator and a speech therapist, whom he sees weekly. These professionals know John well and have implemented specific strategies to improve his communication.

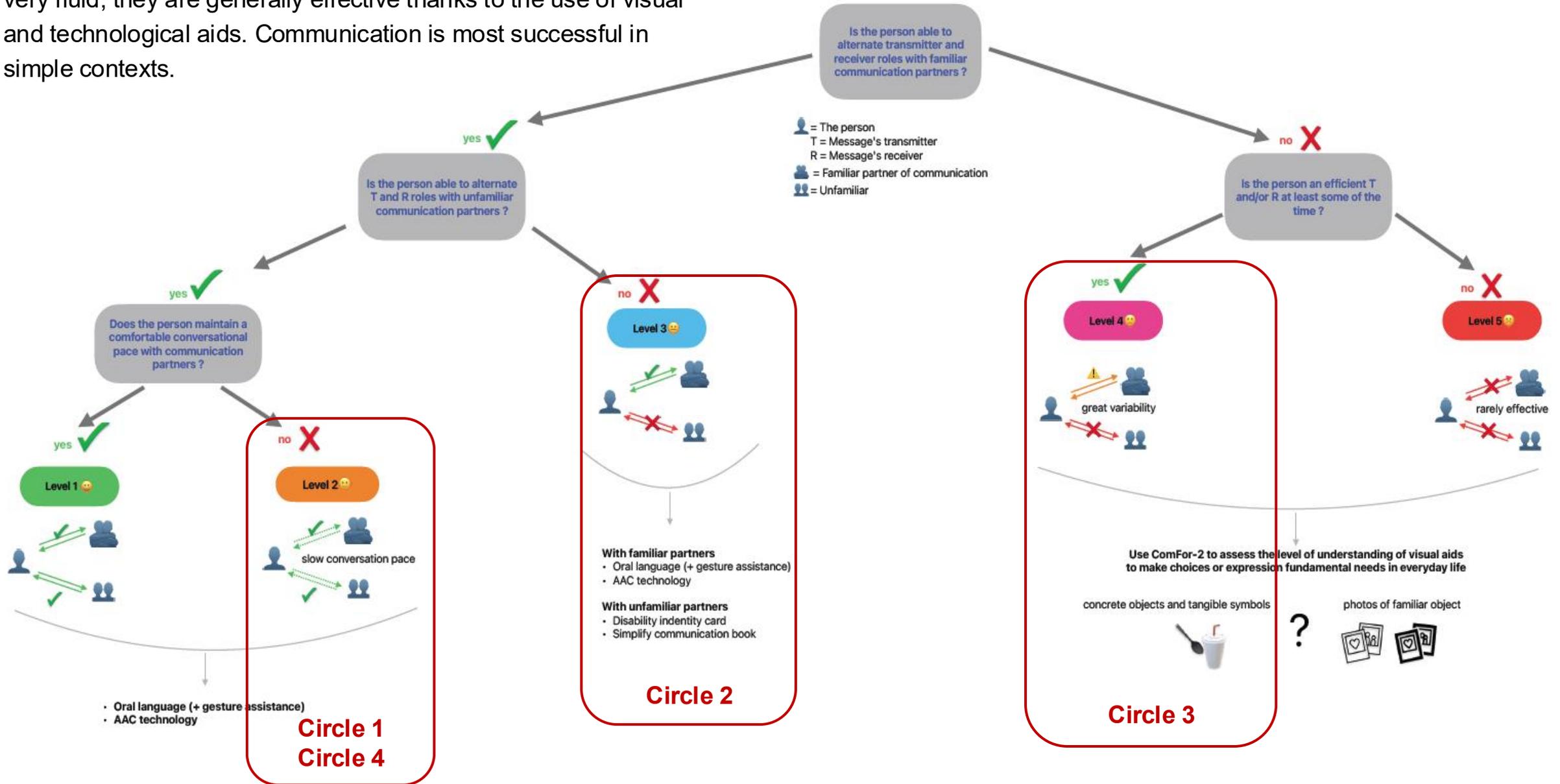
They use augmentative tools, such as pictograms or a personalized communication chart, to help him structure his sentences. The speech therapist also works with him on using assisted communication apps to help him express his daily needs more easily.

With their support, John is able to make himself understood on simple topics, though more complex conversations remain challenging.

Situation analysis

- **Ability to alternate between the roles of speaker and receiver:** With the support of professionals like his speech therapist and special education teacher, John is able to alternate roles in a more structured manner. Thanks to strategies such as pictograms or an AAC application, he is better equipped to participate in exchanges.
- **Conversational fluency:** Conversations flow more smoothly with the use of technological aids. The professionals are trained to understand and interpret John's signals, allowing for greater continuity in exchanges.
- **Effectiveness of exchanges:** The effectiveness of communication is enhanced by the use of alternative communication tools. Jean can express his daily needs more clearly, although he still faces challenges when it comes to more complex or emotional messages.

John is at **Level 2** with professionals. While exchanges are not very fluid, they are generally effective thanks to the use of visual and technological aids. Communication is most successful in simple contexts.



Circle 5 – With people he does not know

John finds it very difficult to interact with people he's meeting for the first time. When faced with a stranger (such as a new doctor or a shop assistant), his attempts at verbal communication are often ignored or misunderstood.

John is sometimes frustrated in these situations.

Communication tools (such as pictograms) are not always used, making communication almost impossible without someone close to him to help him.

Situation analysis

- **Ability to alternate the roles of speaker and receiver:** John is generally unable to alternate between speaking and listening with strangers. His attempts to communicate are often ignored or misunderstood, limiting interactions to basic gestures or requiring intervention from someone close to him.
- **Conversational fluency:** Meaningful exchanges with strangers are almost non-existent. John is unable to initiate conversations or convey his messages without direct assistance.
- **Effectiveness of exchanges:** These interactions are largely ineffective and often lead to frustration for John. Without the use of support tools like visual cards or a communication board, communication remains highly limited.

Strategies to be implemented

To determine the most appropriate communication tool for John, it is essential to **consider his motor limitations** and his **ability to communicate** with partners in each circle.

Collaboration is key to find the best compromise and avoid an overabundance of communication channels.

Given John's **intellectual disability**, Hi-Tech alternative communication system might not be the most suitable option, at least not for independent use.

There are two potential options, depending on his level of understanding of how to use the communication aid.

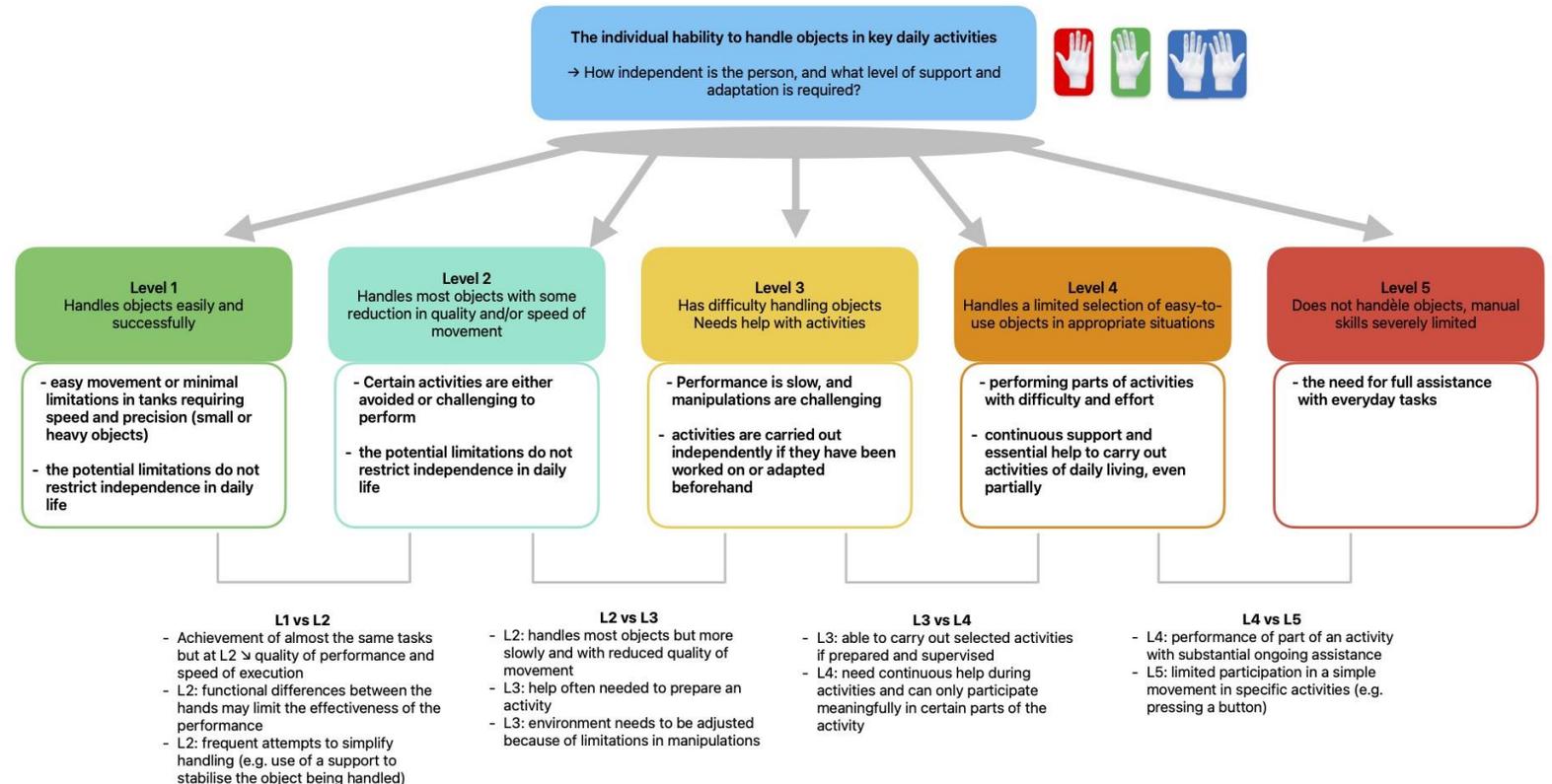


Determine the level of manipulation	<ul style="list-style-type: none">• Relatively preserved• Highly altered
Taking into account the cognitive level	<ul style="list-style-type: none">• Mild to moderate IDD• Severe to profound IDD
Selecting a tool	<ul style="list-style-type: none">• High tech support• Low tech support

The level of manipulation

According to the MACS scale, John seems to correspond to **Level 3**, where he has difficulty manipulating objects and requires assistance to perform activities independently.

This indicates that John needs an adapted environment and communication devices that are easy to handle, along with moderate support to use them effectively.



The level cognitive and adaptative development

The (neuro)psychological tests John underwent revealed a moderate intellectual disability.

The adaptive functioning scales show limited ability to carry out the tasks of daily living independently.

They can generally take charge of simple activities such as personal hygiene, preparing simple meals or certain household tasks, but often require supervision for more complex tasks or in new situations.

Socially, they can establish relationships but may have difficulty understanding social nuances or adapting to unfamiliar environments.

Conceptually, he experiments delays in reading, writing and numerical skills, and often require concrete support to understand and communicate.



DABS 

Communicative strategies and communicative tools regarding the motor and the cognitive limitations

Possible communication tools

Low-tech assistant systems:

A less complex system, such as a communication book with pictograms or photos, might be more suitable for John. This would allow him to easily navigate through limited choices and express himself by pointing to images. Such a system is simple to understand and use, even for individuals with a moderate intellectual disability.

Concrete objects and photos:

Since John seems capable of associating objects and images with concepts, a communication system based on concrete objects and photos may be more effective than abstract pictograms. For example, using photos of everyday objects could allow him to express needs by pointing to them.

Simplified speech synthesis with basic pictograms:

If technology is considered, it should remain very simple, with a limited number of choices and clear pictograms. An application like Go Talk Now could be useful but would require a minimalist, customized interface to meet John's specific needs. This type of technology would be best employed in supervised contexts, where professionals or family members can assist him in selecting the correct options.

Optimum choices for each communication circle

- **Circle 1:** A communication notebook or a system of photos of objects would enable John to point to the elements he wanted to express. A basic text-to-speech device with a limited number of buttons could be used with supervision.
- **Circle 2:** Using photos or a simple communication board would facilitate exchanges in this circle, where people are not always used to understanding his immediate needs.
- **Circle 3:** A communication book with clear images or photos of John's daily needs would make it easier to interact with people who are less familiar with his communication style.
- **Circle 4:** A simplified voice synthesiser with an intuitive interface could be introduced, with the support of a trained professional. Very simple photo or pictogram systems would also be effective.
- **Circle 5:** In this case, it would be useful to include an identity card detailing the person's specific communication needs, accompanied by photos of familiar objects or a simplified chart, allowing minimal interaction with strangers.

Conclusion

Considering John's intellectual disability, a **communication book with photos** appears to be the most appropriate tool for all his communication partners.

This system allows John to express his needs and preferences in a way that is easy for him to understand and use.

In more structured or supervised environments, this can be supplemented with a simplified voice synthesizer to further enhance his ability to communicate.

However, it's important to avoid overly complex technologies, as they may cause confusion and frustration for John, limiting the effectiveness of communication.



Individualized support plan

Individualized support plan

Customized plan designed to meet the unique needs and goals of a specific individual

Consider the individual's strengths, weaknesses, interests, learning styles

Roadmap for their progress

Should be defined and shared with the target person and their family

Individualized support plan – Key elements

Assessment

- Tests, interviews, observations by the parents, specialists, teachers, or social workers
- Identify the person's strengths, weaknesses, needs, wishes and dreams

Goals and objectives

- Specific to the person,
- Often broken down into smaller, achievable steps to track progress

Individualized support

- Strategies and resources used to support the person's progress
- Specialized materials assistive technologies, additional support

Accommodations and modifications

Timelines and progress monitoring

- Timelines for achieving the set goals
- Methods for monitoring progress (regular assessments, progress reports)

Support services

Outlines the specific supports the person's need

Communication and collaboration

- Ensure that everyone is aware of the person's need and can work together to support their progress



1. Introduction



2. Communication - Needs and Importance



3. Individualized support plan



4. Needs Identification Techniques and Procedures



5. Basic communication means



6. Complex communication means

 2. Communication - Needs and Importance

 3. PR3-Module training > 2. Communication - Needs and Importance

 4.  Nom ▾

 5.  1 - Communication and communicative functions

 6.  2 - Communication partners and their roles

 3 - Impact of IDD on communicative functions - Support needs

 4 - What is inclusive communication

 5 - Supported decision making

 5. Basic communication means

 6. **PR3-Module training** > **5. Basic communication means**

 Nom 

 1 - Gaze

 2 - Pointing

 3 - Imitation

 4 - Gestures

 6. Complex communication means

PR3-Module training > 6. Complex communication means

 Nom

 6.1 Symbols and AAC

 6.2 Oral language

 6.3 Written language

 6.4 Digital tools and platforms

 6.5 Social Interactions

 Catalan version

 Finnish version



 French version

 Greek version

 Spanish version

 COM_IN_PR3_Trainer's guide_2_1_Communication and communicative functions.docx

 COM-IN_PR3_2_1_Communication and communicative functions.pptx



Training dedicated to professionals in IDD to support the development of Social Communicative Abilities

Module 2

Communication - needs and importance

1

Module 2. Communication needs and importance

Chapter 1: Communication and communicative functions
 Chapter 2: Communication partners and their roles
 Chapter 3: Impact of IDD on communicative functions - Support needs
 Chapter 4: What is inclusive communication
 Chapter 5: Support decision making

2

Module 2. Communication- needs and importance

Chapter 1: Communication and communicative functions

Learning Objectives

- Understand what is communication
- Understand the different functions of communication
- Understand the purpose of communication and its different components

3

Communication

Before 1 year-old

After 1 year-old

Sounds, body movements, facial expression, gestures
Express elementary needs

Speech and language
Express more and more complex significations by combining words

5

Early communication acts

Refusal

Desire to obtain something

Intention to engage in social interaction

Exchange of information

Essential acts of communication

6

Trainer's Guide

Module 2.1

Communication needs and importance

Presenter's name: _____

Date: _____

7

Table of contents

1. Introduction 3

2. Materials needed 3

3. Slide and trainer's notes 4

1. Introduction

This section presents the notions of communication and communication functions. It is the first chapter in module 2 (Communication needs and importance).

Chapter 1: Communication and communicative functions

Chapter 2: Communication partners and their roles

Chapter 3: Impact of IDD on communicative functions - Support needs

Chapter 4: What is inclusive communication

Chapter 5: Support decision making

2. Materials needed

The slides for this presentation (COM-IN_PMO_2_1_Communication and communicative functions.pptx).

A projector.

Erasmus+

Who is transmitting the message?

Who is receiving the message?

Who is the receiver?

Who is the transmitter?

Who is the message?

Who is the channel?

Who is the context?

Who is the purpose?

Who is the feedback?

The roles

Who is transmitting the message?

Expressive function

The transmitter

Who is receiving the message?

Constative function

The receiver

Interchangeable

By his expression, the transmitter makes the receiver act (by asking, proposing, affirming, ...)

Slide n°: 4 Estimated time:

Module 2. Communication: needs and importance

Chapter 1: Communication and communicative functions

Sections

- 1.1: What are communication?
- 1.2: Early communication
- 1.3: Communication with symbols - communicative functions

The slide

- The message

SLIDE CONTENT

Module 2 Chapter 1 (Communication and communicative functions)

Overview of the chapter

NOTES

Slide n°: 5 Estimated time:

Communication

Before 1 year-old

After 1 year-old

Sounds, body movements, facial expression, gestures
Express elementary needs

Speech and language
Express more and more complex significations by combining words

SLIDE CONTENT

Module 2 Chapter 1 (Communication and communicative functions)

Children communicate before they can speak. They use a wide range of means, including gestures, to express their needs. The emergence of language enables children to manage certain communication situations more effectively, although this does not bring about any major resolution in the communication strategies already in place. There are gestures of:

- Acquiescence (e.g. nodding).
- Refusal (e.g. arms outstretched/push forward).
- Goodbye (e.g. hand raised and waving).

Slide n°: 6 Estimated time:

Early communication acts

Refusal

Desire to obtain something

Intention to engage in social interaction

Exchange of information

Essential acts of communication

SLIDE CONTENT

Module 2 Chapter 1 (Communication and communicative functions)

To communicate is to transmit information to a receiver or to seek to bring about a change of attitude or specific action. In the 1970s, the linguist Roman Jakobson defined a model of communication to understand the factors involved in any communication situation. He identified and described 6 fundamental communication functions, i.e. the elements necessary for any communication between a communicator and a receiver.



Bibliography



Arner, M., Eiasson, AC., Rösblad, B., Rosenbaum, P., Beckung, E, & Krumlinde-Sundholm, L. (2002). Manual Ability, Classification System. <https://www.macs.nu/the-purpose.php>

Beukelman, D., & Light, J. (2020). *Augmentative and alternative communication for children and adults*. Baltimore, MD: Paul H. Brookes Publishing Co.[Google Scholar].

Blackstone, S & Hunt Berg, M. (2003). *Social Networks : a communication inventory for individual with sever communication challenges and their communication partners*. Monterey, CA : Augmentative Communicative; Inc.