



Funded by
the European Union

A1 - BLOCK 2

Training Toolkit

ID-GAMING: DEVELOPMENT OF A TRAINING PROGRAM FOR THE IMPROVEMENT OF QUALITY OF LIFE OF PERSONS WITH INTELLECTUAL DISABILITIES THROUGH “SERIOUS GAMES”



TOPIC 2

Cognitive training in QoL

Cognitive functions needed to improve Quality of Life (independence, social participation and well-being) of persons with intellectual disabilities.

What are Cognitive Functions?



Funded by
the European Union



Cognitive Functions

What are Cognitive Functions?

Cognitive functions are our **mental processes that occur in our brain** that help us gather and **interpret the information**.

How we gather information?

- Listening,
- Watching,
- Reading,
- Searching out information,
- Making questions,
- Paying attention to things around,...

There are many activities that can help us to train this, (exercises, games, mental activities,...) By training, our cognitive capacity will increase, that is, our thinking abilities.

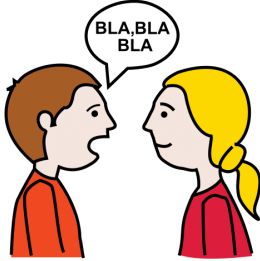
And, when we improve our cognitive functions, we will also improve our Quality of Life.



Funded by
the European Union

Cognitive Functions

Now, we are going to know the cognitive functions:



Language



Calculus & Problem Solving



Memory & Attention to Detail



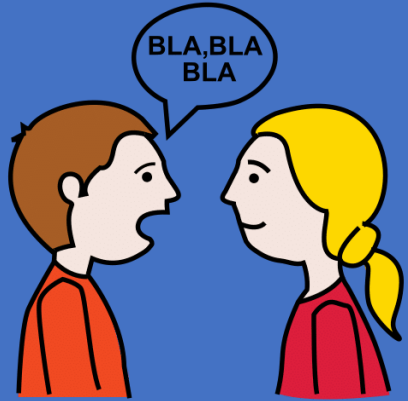
Spatial Orientation



Social & Emotional Skills



Funded by
the European Union



Language

Language is the basis of communication.

When we want to express our ideas, feelings, desires... we use language.

When we need something from others, we need to communicate what we need.

There are many types of languages: we can speak, write, use signs or gestures,... all this languages help us understand others and make others understand us.

The use of language improve most of Quality of Life dimensions, for example:

INTERPERSONAL RELATIONSHIPS

SOCIAL INCLUSION

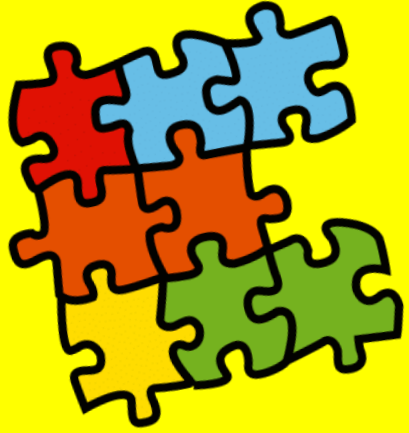
EMOTIONAL WELLBEING

PERSONAL DEVELOPMENT



Funded by
the European Union





Calculus & Problem Solving

Problem-solving refers to the mental process that everyone go through to discover, analyze, and solve problems.

Many activities in our daily life need our ability to solve problems or calculate. For example:

- organizing a pictures collection
- deciding to plan a trip or a meeting
- go shopping

We can make exercises or play games that can help improve our skills in these area.

These Quality of Life dimensions, among others, can be improved by the ability to calculate and problem-solving:

RIGHTS
SELF-DETERMINATION
MATERIAL WELLBEING
PERSONAL DEVELOPMENT



Funded by
the European Union





Memory & Attention to Detail

The **memory** plays a role in all our activities. It helps us remember all kinds of information that sometimes we remember throughout our lives.

The memory is one of the most essential cognitive functions in a person's life.

Attention is the process of focusing our thinking towards certain aspects or actions.

It is very important, because observation and alertness allows us to be attentive of what is happening around us.

There are many ways to exercise memory and attention to detail. When we improve them, we in turn improve the following dimensions of Quality of Life:

INTERPERSONAL RELATIONSHIPS

SELF-DETERMINATION

EMOTIONAL WELLBEING

PERSONAL DEVELOPMENT



Funded by
the European Union





Spatial Orientation

Orientation is the mental ability that makes it easy for us to know where we are and be aware of our surroundings at all times.

More specifically, **spatial orientation** is the ability to know where we came from, where we are at any moment, where we are going, etc.

Working on this important cognitive function can help us to improve some dimensions of Quality of Life, such as:

SOCIAL INCLUSION
SELF-DETERMINATION
PHYSICAL WELLBEING
PERSONAL DEVELOPMENT



Funded by
the European Union





Social & Emotional Skills

This cognitive function has a lot to do with our emotions and how we relate with others in our community.

It is related to how we think about ourselves and about others and how we interact, that is, how are our social relationships. When we are happy with ourselves, we like to be with others, and our well-being increases.

If this aspect is improved, different dimensions of Quality of Life will improve, for example:

SOCIAL INCLUSION
INTERPERSONAL RELATIONSHIPS
EMOTIONAL WELLBEING
PERSONAL DEVELOPMENT



Funded by
the European Union



Sources

- Laiz, Nuria & Díaz, Sagrario & Rioja, Natalia & Gomez-Pilar, Javier & Hornero, Roberto. (2018). *Potential benefits of a cognitive training program in mild cognitive impairment (MCI)*. Restorative Neurology and Neuroscience. 36. 207-213. 10.3233/RNN-170754.
- Ballesteros, S. (2000). *Psicología General. Un enfoque cognitivo para el siglo XXI*. Madrid: Universitas.
- <https://neuronup.us/areas-of-intervention/cognitive-functions/>
- <https://cedec.intef.es/discapacidad-intelectual-y-accesibilidad-cognitiva/#:~:text=Las%20personas%20con%20discapacidad%20intelectual%20presentan%20limitaciones%20en%20sus%20capacidades,comprensi%C3%B3n%20y%20establecimientos%20de%20analog%C3%ADas.>
- Pictograms: <https://arasaac.org/pictograms/>



Funded by
the European Union



Acknowledgments

This document was written with the support of the Erasmus+ funding programme under grant agreement PT01-KA204-02020-1- 78873



Funded by
the European Union

The European Commission's support to produce this publication does not constitute an endorsement of its contents, which reflects the views only of the authors. The Commission cannot be held responsible for any use which may be made of the information contained therein.

The contributions of the 'Development of a Training Program for the Improvement of Quality of Life of Persons with Intellectual Disabilities Through Serious Games' project partners to the creation of this document are gratefully acknowledged.

The other deliverables of the ID GAMING project can be found on the project webpage <https://id-gaming-project.eu/>



Funded by
the European Union

