



Co-funded by the
Erasmus+ Programme
of the European Union



Module 4: Intervention models of reference

IPA+

Autism- training for inclusion



Index

1. Intervention models based on scientific evidence.
2. Teacch model
3. Intervention before problematic behaviors from the Positive Behavioral Analysis.
4. Alternative and augmentative communication systems.
5. Quality of Life Model.
6. Development model: understanding people with ASD: teorías explicativas

1. Intervention Models based on Scientific Evidence

Currently, the most effective science-based practice is that which demonstrates the effectiveness of interventions both in empirical results, and in the judgment and experience of professionals who observe and show positive results in a large number of people and throughout of the lifespan.

Starting from a professional and organizational specialization it is possible to plan out general and specific supports to cover the needs of people with ASD, and adapt them to meet their individual interests, capabilities and personal differences. A deep knowledge of autism provides a guide to design environments, activities, methodologies and organizational conditions that will set the essential conditions to ensure the personal development and well-being of people with autism, requirements to promote their quality of life.

Propuesta para la planificación de servicios y programas para personas con trastornos del espectro del autismo y sus familias Octubre de 2011. Asociación Española de Profesionales de Autismo. AETAPI
<http://aetapi.org/download/propuesta-la-planificacion-servicios-programas-personas-trastornos-del-espectro-del-autismo-familias/?wpdmdl=3317>

The site researchautism.net provides information about the effectiveness of the interventions used to help people on the autism spectrum.

Each intervention is rated according to the amount and quality of scientific evidence which has been published in peer-reviewed journals. Also provides information on whether each intervention is considered to be hazardous.

ABA and Autism	NA	Advocacy, Self Advocacy and Autism	NA	Antidepressants and Autism	NA ⚠️
Antipsychotics and Autism	NA ⚠️	Applied Behaviour Analysis and Autism	NA	Aripiprazole and Autism	✓✓✓ ⚠️
Assistance Dogs and Autism	?	Auditory Integration Training and Autism	?	Chelation and Autism	? ⚠️
Cognitive Behavioural Therapy and Autism	✓✓✓	Coloured Filters and Autism	?	Daily Life Therapy and Autism	?
Dietary Supplements and Autism	NA	Dimethylglycine and Autism	✗	DIR Method and Autism	✓
Discrete Trial Training and Autism	✓	Dolphin Therapy and Autism	? ⚠️	Early Intensive Behavioural Intervention (UCLA YAP Model) and Autism	✓✓
Equine-Assisted Activities and Therapies	?	Facilitated Communication and Autism	✗ ⚠️	Feingold Diet and Autism	0
Holding Therapy and Autism	? ⚠️	Hyperbaric Therapy and Autism	✗ ✗	Gluten-Free, Casein-Free Diet and Autism	?
Incidental Teaching and Autism	?	LEAP and Autism	✓	Immune Globulins and Autism	✗ ✗ ⚠️
Methylphenidate and Autism	✓✓ ⚠️	Milieu Teaching and Autism	?	Melatonin and Autism	✓✓
Music Therapy and Autism	✓	Occupational Therapy and Autism	NA	Multi-Vitamin and Mineral Supplements	?
Omega 3 Fatty Acid Supplements and Autism	?	Oxytocin and Autism	?	Olanzapine and Autism	✓ ⚠️
Pivotal Response Treatment and Autism	✓✓	Portage and Autism	?	Picture Exchange Communication System and Autism	✓✓
Risperidone and Autism	✓✓✓ ⚠️	Secretin and Autism	✗ ✗ ✗ ⚠️	Relationship Development Intervention and Autism	?
Social Skills Groups and Autism	✓✓	Social Stories and Autism	?	Sensory Integrative Therapy and Autism	?
Speech and Language Therapy and Autism	NA	Supported Employment and Autism	✓	Son-Rise Program and Autism	0
Testosterone Regulation and Autism	? ⚠️	Theory of Mind Training and Autism	✓	Special Diets and Autism	NA
Visual Schedules and Autism	?	Vitamin B6, Magnesium and Autism	?	TEACCH and Autism	✓✓
				Video Modelling and Autism	?
				Weighted Items and Autism	?

Models of intervention

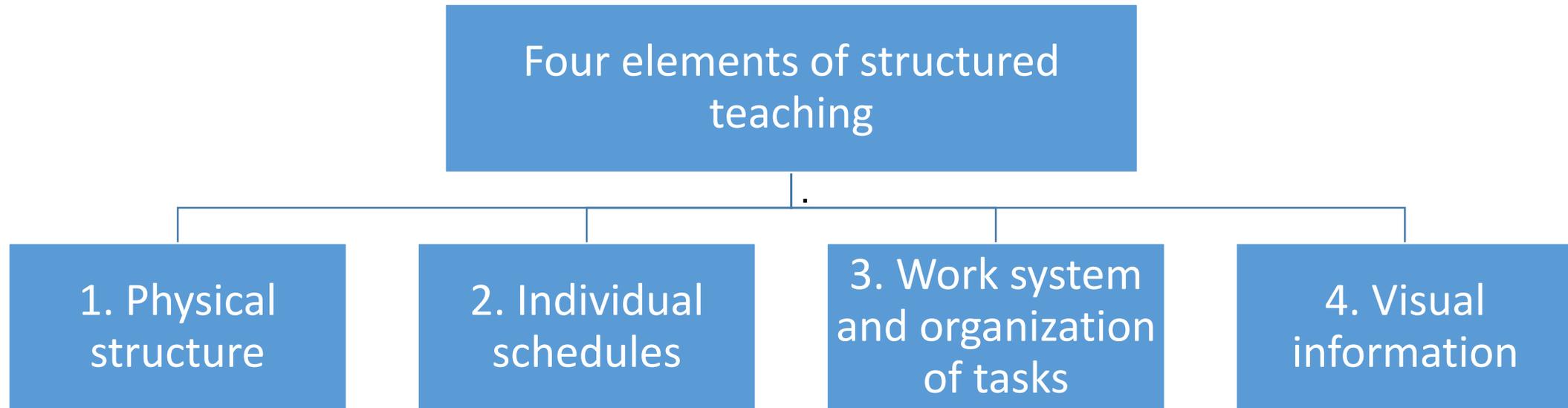
Currently, the most recommended psychoeducational interventions from the clinical practice are:

- Teacch Model
- Behavioral Intervention (Positive Behavioral Support)
- Augmentative and alternative communication systems
- Promotion of social competences
- Cognitive behavioral approach
- Early intervention

However, integral intervention must be carried out from the early attention to the adult life.

2. Teacch Model

The Teacch Model is an intervention approach based on structured teaching developed in North Carolina in 1966 by Eric Schopler is based on the learning characteristics of individuals with autism, including strengths in visual information processing, and difficulties with social communication, attention, and executive function.



Teacch Model: Physical Structure

- Organize the environment to understand where the activities are carried out and where the materials are stored
- Establish clear/physical limits
- Minimize sensory distractions

Group Zone

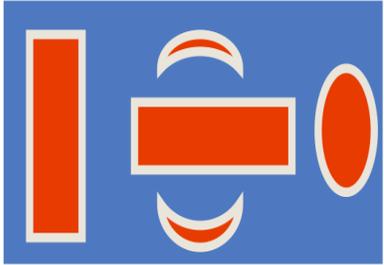
- Assembly area- greeting, roll call, day of the week, anticipate significant activities of the day, play corner, toilet corner ...

Individual areas

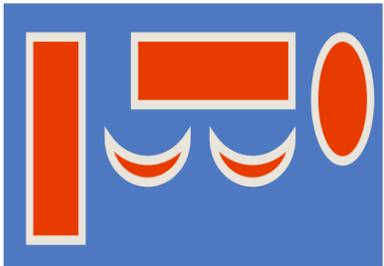
- Work corner, computer corner, relaxation corner



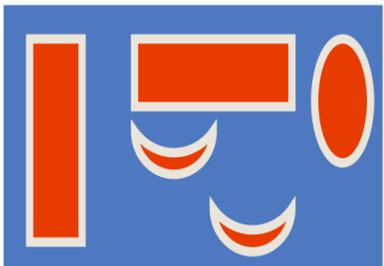
Teacch Model: Physical Structure



In front of the person with ASD: Interaction, teacher attention, evaluation, HHSS and communication work



Next: Homework, materials, more visual aids and less language. To capture your attention towards the object and the task. Less social requirement.



Curricular skills Behind: manipulative tasks, physical aids. When you only have to pay attention to the object. Promote independence.

2.2 Structured working system: secuenciar temporalmente las tareas

- What, where, when and for what
- Take into account the level of representation

They facilitate

- Flexibility Independence
- Transitions
- Customized

BEGINNERS:

- One or two activities
- Important the transition area
- Transition cards indicate what has been finished, reinforcement, activity to be carried out
- Prioritize the practice, minimize errors

2.3 Temporal structuring of the classroom

Identification of the day of the week:

- Assignment to each day of a particular color
- Weather panel
- Past, present and future: red, arrow and transparent

Individual work schedules:

- Orderly sequence of tasks to be performed throughout the week
- Mark the task in which it is found, mark the task that ends
- Elections panel

3. Visual Support

- Encourage your learning style, minimize hearing support and promote independence
- Visual organization
 - Material and space gain in independence and learning
 - Limit space and organize materials
- Visual clarity
 - Direct attention to the relevant: Label, underline...
- Visual instructions
 - Beginning, development, end of activity

3. Intervention before problematic behaviors from the Positive behavioral analysis

- A philosophy and methodology to address problem behaviors
- It arises in the middle of the decade of the 80
- Respect for the person, values, interests.
- Functional interpretation of problematic behaviors
- It implies the application of different procedures
- Knowledge of the person and the context
- Creation of contexts that increase the quality of life
- Encourage problematic behaviors to be less effective
- Help make alternative behaviors more functional
- The success of the support plans is measured by the increase in the frequency of the alternative behavior, the decrease in the frequency of the problematic behavior and by improvements in the quality of life of the person.

What does Challenging Behaviour mean?

Emerson (1995): "one that by its intensity, duration or frequency adversely affects the personal development of the individual, as well as their opportunities for participation in the Community".

Some people with autism might present different types of behaviors such as irritability, challenging behaviours, negativity...

These behaviours are frequently related to difficulties in processing information, unstructured time, sensitivity to sensory stimuli, changes in their routines, or physical discomfort (pain, hunger, tiredness).

Not being able to communicate these difficulties can lead to anxiety, anger and frustration, leading to an outburst of challenging behaviour.

These can be addressed by different educational and therapeutic strategies like **Positive Behavioural Support** and **ABA**.

Positive Behavioural Support

These behaviours have a function (e.g. Communication), so the objective is not to eliminate them, but replace them by adequate behaviours which have the same objective for the person and facilitate their participation and inclusion in the Community

The emphasis is on:

- PREVENTION
- THE REPLACEMENT

Phases of Positive Behavioral Support

- Creation of prevention contexts: Spatio-temporal structuring systems, warm and safe environments, respect for personal interests and motivations, personal spaces, reinforcements, problem-solving skills...
- Design of materials and support services: Natural support, reference professionals, choice panels, agendas and calendars, leisure and employment services with support...
- The most effective techniques to reduce problem behaviors are replacing them with a skill that fulfills the same function for the person.

Prevention strategies in the Positive Behavioural Support

The behaviour

- Identify what function has a specific behaviour
- Not every challenging behaviour is priority for the intervention
- Whenever possible, offer different alternatives
- Offer ways and opportunities to show rejection In many cases before a problem of behavior caused by some type of obsession, alternatives must be offered so that the person is freed from anxiety, instead of trying to cut the behavior sharply.

The professional

- Control our bias to attribute mental states
- Show empathy trying to be in the place of the person with autism
- Adequate our language and behaviour
- Be flexible: organization can be reviewed
- Do not put professional interests before those of the people with ASD
- Be motivated recipients;
- Positive attitude based on the capabilities of each person.
- Eliminate all the aversive in our relationship, focusing the errors of people with autism in a positive way and instead of highlighting the one that has not done well, try to convey a positive feeling

The environment

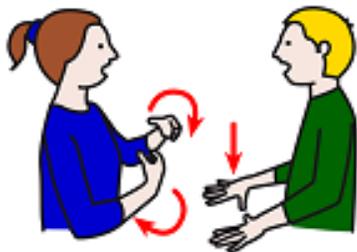
- Favor quiet environments.
- When a problematic situation occurs, avoid to the maximum the fact that the rest of people with autism live closely a situation that can be stressful.
- Create a warm and pleasant environment, with people of reference
- Creation of appropriate environments, respect
- Structure with clear limits

The intervention

- Understand that aversive techniques are not adequate because they do not identify the function and there is a risk that there will be a replacement of a maladaptive behavior with another that is also maladaptive
- Take advantage of your tastes and interests
- Self-control techniques
- Use clear and comprehensible information and structuring systems (with the frequency and adaptations that each person needs).
- Define rules in the organization that try to prevent situations of risk.
- Use reinforcements for all

4. Alternative and augmentative communication systems

- The S.A.A.C. are forms of expression other than spoken language, which aim to increase (augmentative) and / or compensate (alternative) the communication and language difficulties of many people with disabilities.
- It includes various symbol systems, both graphics (photographs, drawings, pictograms, words or letters) and gestures (mime, gestures or manual signs).



OBJECTIVES OF THE S.A.A.C.

- **REPLACE:** Provisional / permanent alternative media
- **COMPLEMENT:** Increase communication
- **FOSTER:** Support for language development

Types of S.A.A.C

SCHAEFFER

- EDUCATIONAL PHILOSOPHY
- NO PRIOR REQUIREMENTS
- REQUIRED SIMULTANEOUS
- USE SIGN + WORD
- ALL FORMS OF COMMUNICATION
- BEGIN FOR NATURAL GESTURES
- PETITION GESTURES / REJECTION GESTURES

PECS

- It is an interactive method of communication for non-verbal persons, which requires the exchange of a symbol between a non-speaker and his interlocutor, with the aim of initiating a petition, making a choice, providing information or responding. "
- People learn to communicate to achieve highly motivating goals.
- First of all it is an approach without verbal encouragement
- The approach uses physical support from greater to lesser importance:
 - 1-achieve success
 - 2-progressive fading

MULTIMODALITY

- Many forms of communication are valued and all those that are useful are used simultaneously:
 - Gestures
 - Graphic images / symbols
 - Sign language
 - Speaks Written language Research tells us that "using different forms of communication does not confuse but gives tools to communicate in different ways."



VISUAL LANGUAGE

It allows:

- **ANTICIPATE:** Routines and daily activities, special activities ...
- **ORDER / STRUCTURE / SEQUENCE:** work, space, materials ...
- **CONTROL** behavior (obsessions, emotions, problematic behaviors ...)
- **TO MOTIVATE ASK / CHOOSE / REJECT LEARN**, remember, discriminate ...
- **COMMUNICATE** (express, understand)



VISUAL LANGUAGE

Develop customized materials such as diaries, elder notebooks or ICT

ARABOARD

DICCIONARIO PICTOGRAMAS

TALKBOARD: <https://itunes.apple.com/es/app/talkboard/id416436888?mt=8>

EMINTZA: <http://fundacionorange.es/emintza.html>

5. Model of Quality of Life

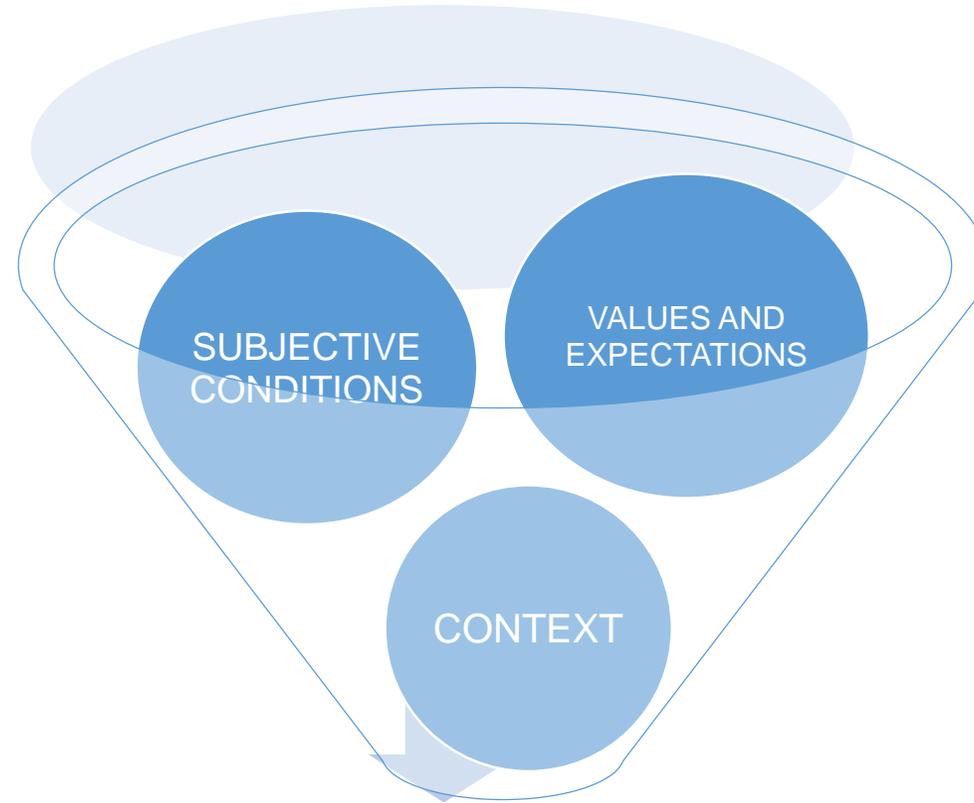
"A concept that reflects the conditions of life desired by a person in relation to eight fundamental needs that represent the core of each person's quality of life dimensions" (Robert Schalock)

“When we speak of quality-based approaches, we must consider two different aspects of quality: the quality of the intervention itself and the quality of life of the person as a primary objective of the intervention, as a means of ensuring the best results possible in terms of independence and self-determination ”
(Autism Europe)

Dimensions and indicators

DIMENSIONS		INDICATORS
EMOTIONAL WELFARE	Safety, happiness, self-concept, spirituality, stress reduction, satisfaction	
RELATIONSHIPS	Intimacy, family, friendships, affection, interactions, supports	
MATERIAL WELFARE	Be owner, security, employment, economic status, food, finances, possessions, protection.	
PERSONAL DEVELOPMENT	Education, satisfaction, meaningful activities, skills, personal competence, progress	
PHYSICAL WELL-BEING	Health, leisure, medical insurance, health care, activities of daily living, mobility, leisure time, nutrition	
SELF-DETERMINATION	Autonomy, decisions, self-direction, personal values and goals, personal control, elections.	
SOCIAL INTEGRATION	Acceptance, supports, environment of the residences, community activities, volunteering, work environment, social roles, social position.	
RIGHTS	Right to vote, accessibility, privacy, fair trials, right to own, civic responsibilities.	

Dimensions of quality of life

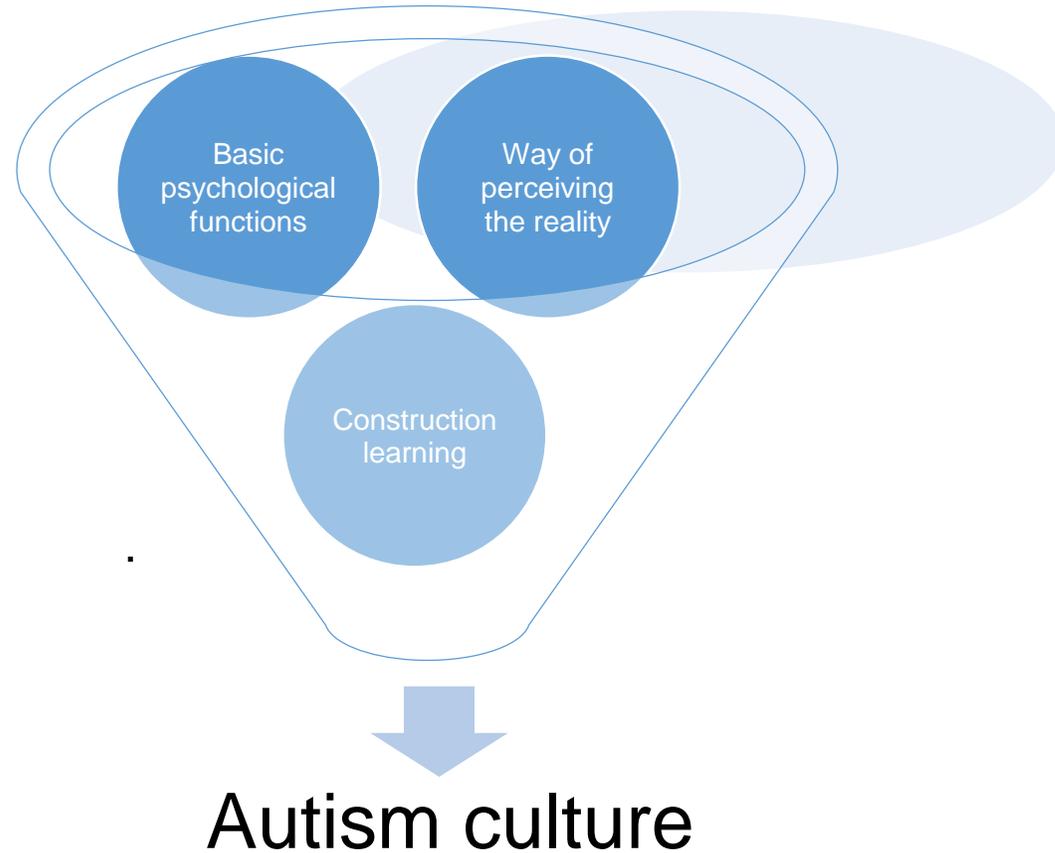


QUALITY OF LIFE

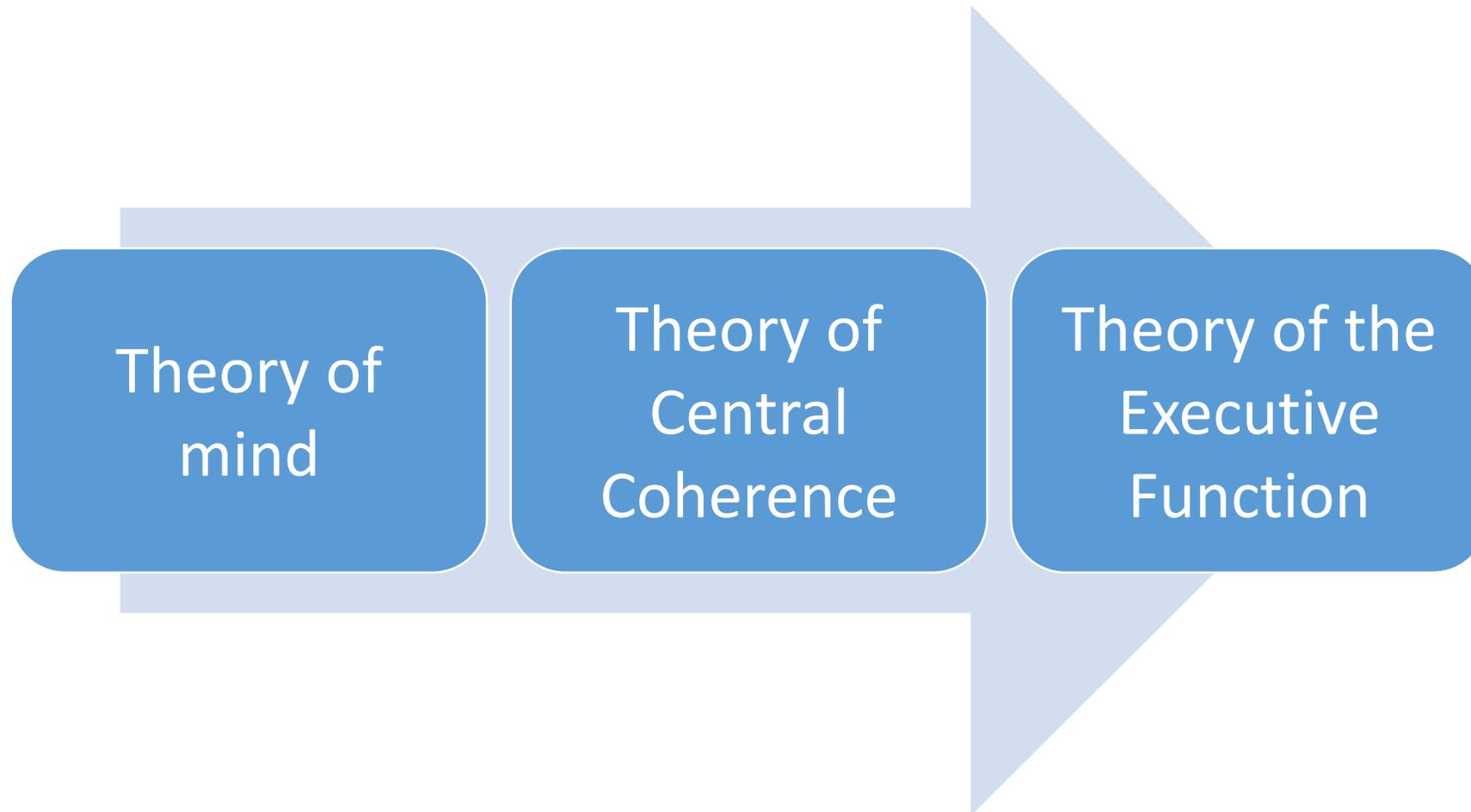
Indicators and proposals for application

- CONTEXT AND SUPPORTS
- PERSONAL DEVELOPMENT / OPPORTUNITIES
- CAPABILITIES
- NEW PROFESSIONAL ROLES
- PROTAGONIST ROLE OF PEOPLE WITH ASD AND THEIR FAMILIES PERSPECTIVES, INTERESTS
- FUTURE PERSPECTIVE
- SIGNIFICANT LEARNING
- PERSONAL RESULTS
- SELF-DETERMINATION
- INCLUSION
- NEW REFERENCE MODELS

5. DEVELOPMENTAL APPROACHES



Explanatory Theories of Autism



1. THEORY OF THE MIND

The ability to understand the purpose or intention of another, to attribute mental states to others "
(Premack and Woodruff, 1978)

"The mental states that we attribute to other people can not be directly observed. They have an adaptive value because they allow us to predict and anticipate the behavior of others based on the intentions, knowledge, beliefs, and emotions that we attribute to them. " (Angel Rivière)

Implications: people with autism have difficulties to:

- predict the behavior.
- realize the intentions.
- explain your own behaviors understand emotions.
- Behaviors or comments will affect other people and influence what others think of them.
- level of knowledge of the interlocutor.
- degree of interest of the interlocutor.
- Inhibit imaginary worlds

2. THEORY OF EXECUTIVE FUNCTIONS

- Executive functions with the abilities that human beings have to control our behavior and our thinking in the direction we want, that is, when we want to achieve a certain goal.
- Categories:
 - Planning (time and space)
 - Work memory (delay, interference, attentional inhibition)
 - Inhibition of behavior
 - Flexibility (change of criteria, generation of alternatives for action)

Implications: people with autism have difficulties to:

- Solve problems in a planned way.
- Attention to different aspects of a problem at the same time.
- Inhibit spontaneous tendencies that lead to an error.
- Problems to grasp the essentials.
- Difficulties to organize and manage time.
- Mental rigidity
- Difficulty to face new situations.
- Manage time

3. THEORY OF CENTRAL COHERENCE

weak

It is the human tendency to process information in a global and contextual way, in this way when, for example, we read a story we make a small abstraction, we are left with the most significant and general aspects; we are able to remember general information and we do not remember so much the details.

"A very useful metaphor to understand what weak central coherence consists of is to imagine that we roll up a sheet of paper in the form of a tube and with one closed eye we apply it against the other open eye, as if it were a telescope, and we look at the world through him: the details are seen but the context is not perceived ". (Attwood, 2007: 391).

Implications: people with autism have difficulties to:

- Partial understanding of the situation.
- They do not integrate all the information.
- Attention to minor aspects of the situation. Excessively literal comprehension of verbal statements.

Bibliography

Autism Education: Tony Charman, Liz Pelicano, Lindy V. Peacy, Nick Peacey, Kristel Forward, Julie Dockrell. (2011). *What is Good Practice in Autism Education? English versión:* <file:///C:/Users/User/Downloads/AET%20good%20practice%20report0308.pdf>

Mesibov, G, and Shea, V. Video. Introduction to TEACCH. Autism Speak <https://www.youtube.com/watch?v=ddGLJ2r4rcw>

The TEACCH Program in the Era of Evidence-Based Practice. *Journal of Autism and Developmental Disorders*. May 2010, Volume 40, Issue 5, pp 570–579 <https://link.springer.com/article/10.1007/s10803-009-0901-6>

Positive Behavioral Support. Strategies for Teachers <http://nbrtlb.com/wp-content/uploads/2014/09/Positive-behavioural-support-strategies-for-teachers.-Intervention-in-school-and-clinic.-1999.-34-1-21-32-1.pdf>

Creating Environments that Work for All Students: Real Manuals for Real Teachers Positive Behavior Support: A Classroom-Wide Approach to Successful Student Achievement and Interactions. <http://cfs.cbcs.usf.edu/publications/RMRT/PDF/4Pasco-PBS.pdf>

Bibliography

AutismSpeak (2012). AugmentativeAlternativeCommunication

https://www.autismspeaks.org/sites/default/files/augmentative_alternative_communication_webinar.pdf

Chazin, K. T., Quinn, E. D. & Ledford, J. R. (2016). Augmentative and alternative communication (AAC). In Evidence-based instructional practices for young children with autism and other disabilities. <http://vkc.mc.vanderbilt.edu/ebip/augmentative-and-alternative-communication/>

Buntinx, W. and Schalock, R. (2010). Models of Disability, Quality of Life, and Individualized Supports. *Journal of Policy and Practice in Intellectual Disabilities*. Vol. 7 N° 4, 283-294.

http://www.buntinx.org/yahoo_site_admin/assets/docs/Models_of_Disability_-_Buntinx_Schalock_2010_JPPID.144132950.pdf

Schalock, R., Keith, K., Verdugo, M.A. and Gómez, L. (2011). Quality of Life Model Development and Use in the Field of Intellectual Disability. In *Enhancing the Quality of Life of People with Intellectual Disabilities*, pp.17-32.

[file:///C:/Users/User/Downloads/Sch%20y%20Vgo%20et%20al%20QoL%20\(1\).pdf](file:///C:/Users/User/Downloads/Sch%20y%20Vgo%20et%20al%20QoL%20(1).pdf)

Vermeulen, P. (2016). Promoting happiness in autistic people

<http://network.autism.org.uk/knowledge/insight-opinion/promoting-happiness-autistic-people>

The culture of autism. <http://www.autismuk.com/index3sub1.htm/>

The IPA + Partnership



Main authors:

José Luis Cuesta & Ascensión Doñate

Contributors:

Celia Gil, Christian García, Conchita Garate, Sunčica Petrović, Nenad Glumbić, Milica Jacevski, Isabel Cottinelli, Rita Soares, Inês Neto, Aurélie Baranger, Cristina Fernández & Haydn Hammersley

Disclaimer

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