

COGNITIVE AND SOCIAL DEVELOPMENT OF CHILDREN WITH ASD ATTENDING NEW INCLUSIVE CLASSROOMS IN FRENCH PRESCHOOLS - A 3 YEARS FOLLOW-UP

Gaëtan **Briet**¹, Sandrine **Le Sourn-Bissaoui**¹, Gaïd **Le Maner-Idrissi**¹,
Stela **Tsamitrou**² & Marie-Hélène **Plumet**²

¹ *Laboratoire de Psychologie, Cognition, Comportement et Communication (LP3C – EA 1285)
– Univ Rennes - Université Rennes 2*

² *Laboratoire de Psychopathologie et Processus de Santé (LPPS - EA 4057)
- Université Paris Descartes – Université de Paris*



INCLUSIVE EDUCATION FOR CHILDREN WITH ASD - SOCIETAL CONTEXT

- In several countries, children with special needs are educated in inclusive school setting as early as preschool years (e.g., USA, Quebec)
- In France, education policies have only recently evolved in this direction:
 - ✓ The law of the 11 February 2005 : children with disabilities have the right to be educated in ordinary school
 - ✓ The law of school refoundation (2013) : school inclusion as a reference



The school must meet the needs of all students
(whatever their particularities)



INCLUSIVE EDUCATION FOR CHILDREN WITH ASD – SOCIETAL CONTEXT

- In this perspective of inclusive education for ASD children, new inclusive classrooms gradually opened up (since 2014) :
 - ✓ Innovative ‘special needs’ small size classrooms are implemented in mainstream preschool
 - ✓ Specialized teacher collaborates with psychologist and educators to provide intensive educational intervention (Denver, TEACH, ABA)
 - ✓ Children can progressively be included in regular classes with their typical peers
- As young as three years old, ASD children benefit from a pedagogy adapted to their special needs while sharing the educative environment of their typical peers



Promising perspectives for :

- ❖ early support of development
- ❖ taking best advantage of schooling (avoiding overwhelm)



INCLUSIVE EDUCATION FOR CHILDREN WITH ASD – SCIENTIFIC CONTEXT

➤ Previous studies showed that inclusive schooling practices have many benefits :



Improvement of cognitive and socio-communicative skills (e.g., Eldevik et al., 2012 ; Peetsma et al., 2001 ; Sainato et al., 2015 ; Stahmer et al., 2011 ; Strain & Bovey, 2011 ; Young et al., 2016)



Reduction of autistic symptoms (Stahmer & Ingersoll, 2004 ; Strain & Bovey, 2011)

➤ Inclusive education could be more beneficial than intervention provided in specialized institution (Kurth & Mastergeorge, 2010 ; Nahmias, Kase, & Mandell, 2014)

➤ Important condition: to provide specific educative adjustments meeting the children's needs (not merely full inclusion) (Gascon et al., 2014)

➤ In France, this type of study is still rare

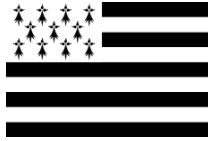


THE PRESENT STUDY

- **OBJECTIVE:** To assess the developmental trajectories of children with **ASD** participating in these new inclusive educational settings
- This collaborative research program involved two university departments (University of Rennes 2 and University of Paris Descartes) and professionals in the field
- The DEVSCOL Project (Grant from IRESP-CNSA 2016-2017) :
 - ✓ The main goal is to determine the extent of children's progress in different domains : sensory, clinical, motor, cognitive and social (processes that underlie adaptation to the school)
 - ✓ Measures and procedure were coordinated through the use of tools that are referred to typical and atypical development
 - ✓ Longitudinal follow-up of **three first cohorts** with similar developmental age ⁵



PARTICIPANTS



Children followed in Brittany

- 16 children with ASD
- 13 boys and 3 girls
- Children are aged from 3 to 9 years old at the beginning of the study (T0)



Children followed in Paris region

- 7 children with ASD
- 5 boys and 2 girls
- All children are 3 years old at the beginning of the study (T0)

- Children attending a classroom of seven or nine students, in an ordinary school
- They benefit of several inclusion sessions (collective, individual and/or reverse inclusion)
- Children benefit of both individualized working times with an adult and group activities with other children



TOOLS AND PROCEDURE

➤ Developmental trajectories are analyzed using :

- ✓ Standardized test and scales



Behavioral problems and autistic symptoms :

- Revised Behavior Summarized Evaluation Scale (BSE – R ; Barthélémy et al., 1997)

Sensory abnormalities :

- Sensory Experiences Questionnaire (SEQ ; Baranek et al., 2006) or Sensory Profile Questionnaire (Dunn, 2010)

Developmental assessment of cognitive and socio-communicative skills :

- The Social Cognitive Evaluation Battery (SCEB ; Adrien, 2007)
- The Psychoeducational Profile-Third Edition (PEP-3 ; Schopler et al., 2008)
- Vineland Adaptive Behavior Scale – Second Version (VABS-II ; Sparrow, Cichetti & Balla, 2015)

✓ Observation of children in school environment :

Communication

Executive control

Fine motor and lateralization



➤ Children were assessed every six to twelve months, depending of the measures

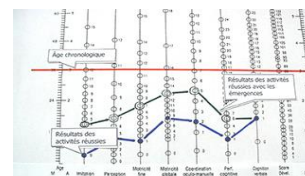
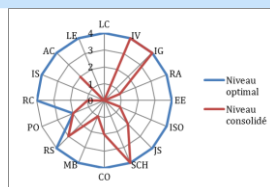
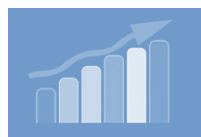
MAIN RESULTS

Plumet, M.-H., Briet, G., Le Sourn-Bissaoui, S., Le Maner-Idrissi, G., Marie, M., Koch, A., ... Adrien, J.-L. (2017). Suivi des trajectoires de développement cognitif et social d'enfants TSA scolarisés en unités d'enseignement maternelle : données sur 2 ans. *Enfance*, 4(4), 585-598.
<https://doi.org/10.4074/S0013754517004232>

Children from all cohorts made gains in every developmental domain:

Developmental assessment of cognitive and socio-communicative skills :

- There is a continuous improvement of cognitive and socio-communicative skills
- Progress tend to be larger during the first months
- Homogeneity between these two domains tends to increase over time



Autistic symptoms and sensory abnormalities :

- They decrease as soon as the end of the first year
- For most of the children, they tend to be stable during the rest of schooling



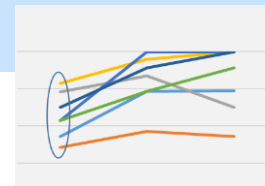
MAIN RESULTS

Children's communication observed in school environment :

- Significant progress in socio-communicative skills are noted (in classroom or playground)
- But children's initiatives need to be scaffolded (not only responses), as well as communication directed to peers



Heterogeneity of individual profiles in terms of initial level and developmental trajectory : predictor of outcomes will be analyzed



Some children attended full-time regular classes during 2nd or 3rd year

CONCLUSION

In summary

- Our first results are quite promising in the perspective of ensuring the best educational opportunities and well being of children with ASD within early inclusive school settings
- This study highlights the interest of a partnership between researchers and practitioners : this collaboration is an essential means to adjust the implementation of these new classrooms

Perspectives

- The AUTISCOL Project (Grant: IRESP-CNSA 2018-2021) :
 - a) larger samples (N= 48 from 7 UEM) are currently included in the follow-up,
 - b) the first cohorts are re-assessed two years after UEM
 - c) control group : children with ASD involved in other educative settings are followed during same age period with comparable measures
- Transpose our expertise in the field of longitudinal evaluation of children with ASD to other situations (e.g., peer tutoring, digital tablet-based interventions).

THANK YOU FOR YOUR
ATTENTION

