

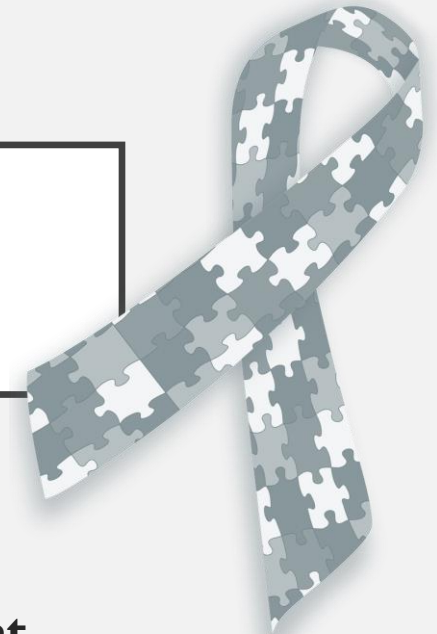
# THE INTERRELATION BETWEEN MULTILINGUALISM, SOCIAL SKILLS, AND PARENT-CHILD RELATIONSHIP ON ACADEMIC PERFORMANCE IN ASD

M. Sc. Maïte Franco

Prof. Dr. Georges Steffgen

Dr. Andreia Pinto Costa

# THEORETICAL BACKGROUND



## WHAT IS AUTISM SPECTRUM DISORDER (ASD) ?

**Neuro-developmental disorder which causes clinically significant impairment in social, occupational, or other areas of current functioning**

- **Persistent deficits in social communication and interaction (across contexts and time)**
  - deficits in social-emotional reciprocity
  - deficits in nonverbal communicative behaviors used for social interaction
  - deficits in developing, maintaining, and understanding relationships
- **Restricted, repetitive patterns of behavior, interests, or activities**
  - repetitive motor movements
  - insistence on sameness and adherence to patterns and routines
  - highly restricted and fixated interests
  - hyper- or hyporeactivity to sensory input

# THEORETICAL BACKGROUND

Children with ASD tend to underperform in mainstream academia  
(Manti et al., 2011)

WHY?

- having impaired linguistic pragmatics and showing difficulties in understanding or using figurative language, (Philofsky et al., 2007), children with ASD may face additional challenges in social communication in the multilingual education in Luxembourg
  - especially in academia, since language skills have been found to predict outcomes such as mathematics (Greisen et al., 1986; Martini, 2021)
  - the socialization paradigm: a person acquires socio-cultural knowledge via language and acquires linguistic knowledge via socialization (Ochs & Schieffelin, 1984)
- parents of children with ASD are often advised to use only one language for communication with their child (Yu, 2013)
  - accordingly, a number of studies found detrimental effects of imposed monolingualism in family member's wellbeing, communication, social interaction, and family dynamic (Baker, 2013; Franco et al., in preparation; Jegatheesan, 2011; Kremer-Sadlik, 2005; Ozturk & Howard, 2018)

# THEORETICAL BACKGROUND

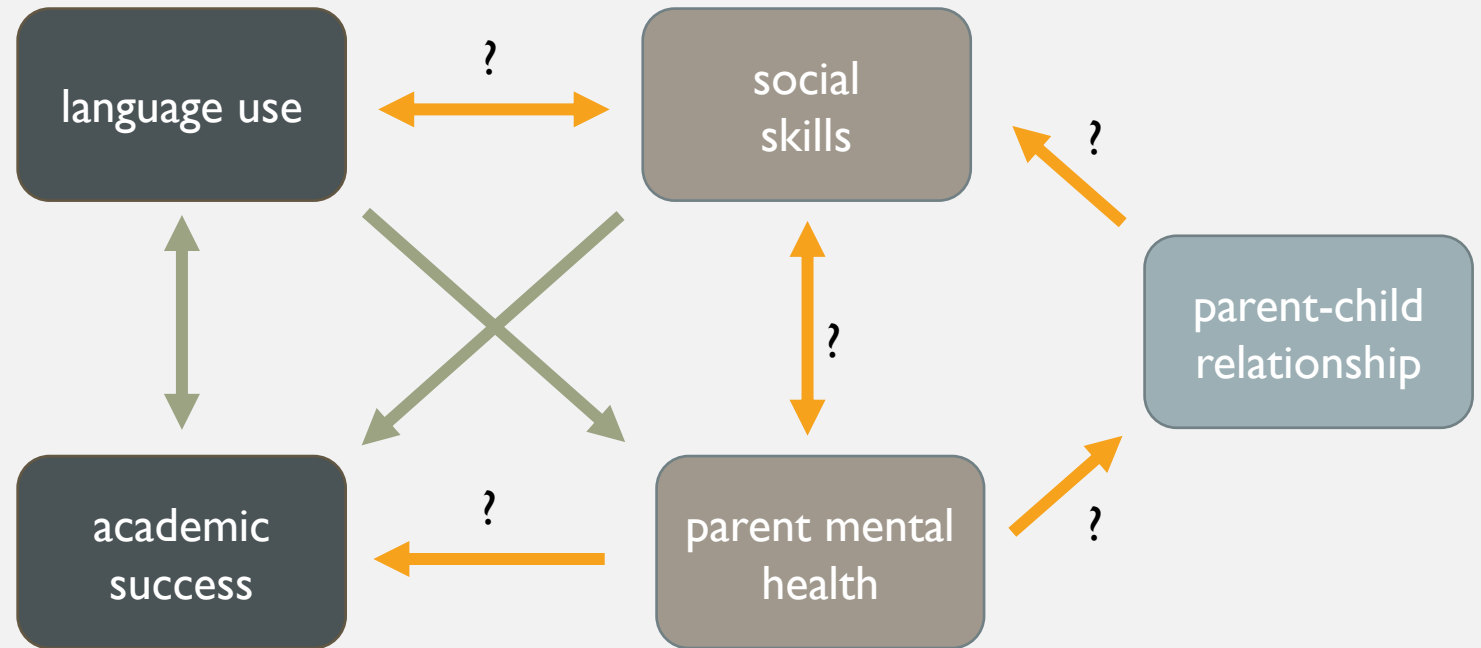
Children with ASD tend to underperform in mainstream academia (Manti et al., 2011)

WHY?

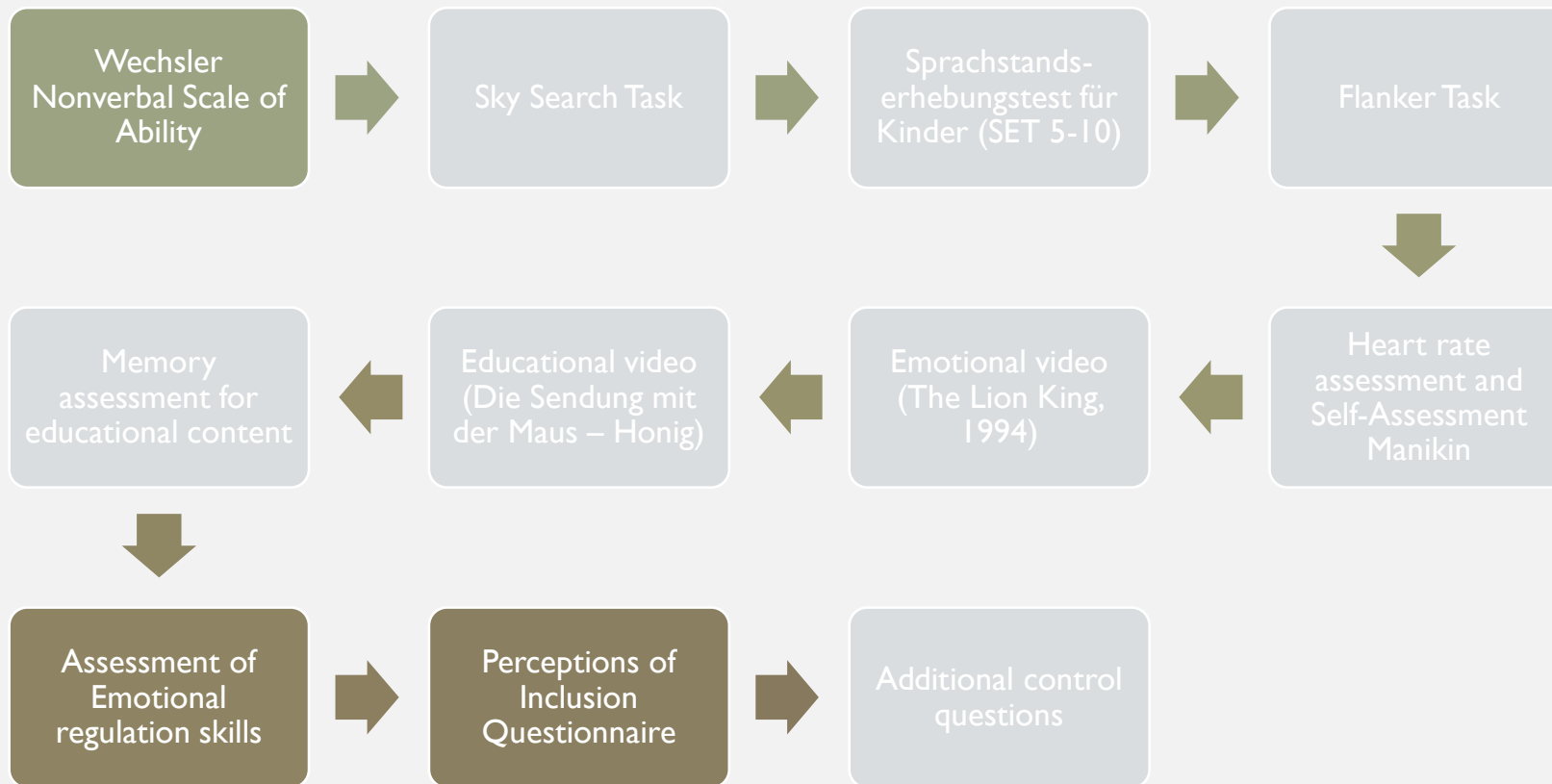
- in typically developing (TD) children, social skills have been identified to influence the academic outcome significantly (Meier et al., 2006).
- this was also observed in children with ASD (Estes et al., 2011; Miller et al., 2017) and maybe even more pronounced as they tend to face social exclusion more often (Frostad & Pijl, 2007; Humphrey & Lewis, 2008)
- since children learn social skills for a major part in interaction with their parents (Ladd, 2005), their relationship could play a role in this
  - this may be especially important since parents of children with ASD were found to interact less with their children, than parents of TD children (Costa et al., 2019)

# THE RESEARCH MODEL

- Sample:
  - Children in primary education
    - 1 parent/guardian + class teacher
  - No intellectual disability
- Additional, control variables:
  - IQ and SDS
  - ASD traits, and alexithymia
  - German proficiency

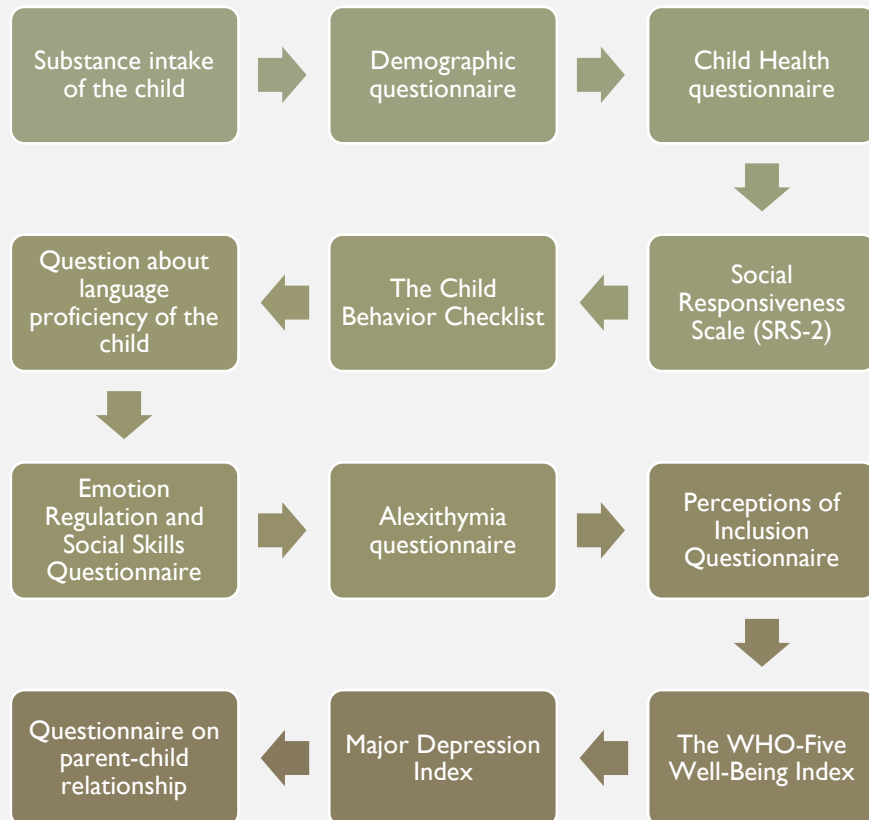


# PROCEDURE CHILDREN

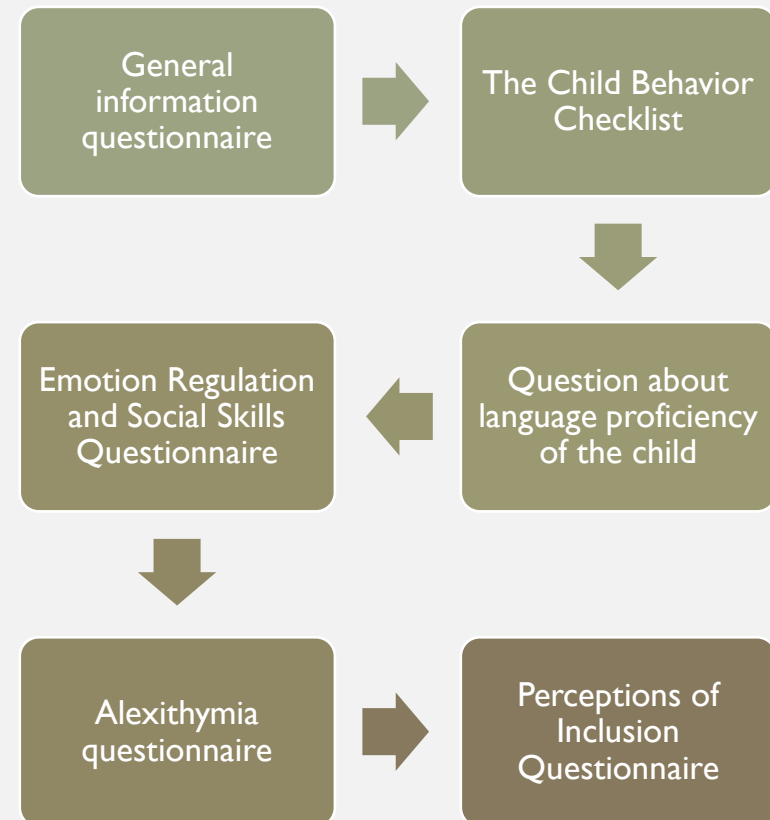


# PROCEDURE PARENTS & TEACHERS

## PROCEDURE PARENTS



## PROCEDURE TEACHERS



## PARTICIPANT RECRUITMENT

- Centre pour enfants et jeunes présentant un trouble du spectre de l'autisme (CTSA)
- Inclusive services of the Ministry (MENJE)
- Primary education teachers
- Fondation Autisme Luxembourg (FAL)
- 3AL - Autism Awareness Association

# RÉSULTATS SCOLAIRES DES ENFANTS AVEC AUTISME

INFLUENCÉS PAR LES LANGUES, LES ÉMOTIONS,  
ET LES COMPÉTENCES SOCIALES ?

## Qui ?

Des enfants avec autisme qui fréquentent l'enseignement fondamental et un parent. Le/La titulaire de la classe (optionnel).

## Quoi ?

Une étude pour comprendre ce qui aide les enfants à réussir à l'école.

## DURÉE

120 min pour l'enfant (avec des pauses)  
80 min pour le parent  
35 min pour l'enseignant

## COMPENSATION

50€ en bon pour l'enfant  
50€ en bon pour le parent  
25€ en bon pour l'enseignant

## LIEU

Parents/Enfants Université du Luxembourg  
Enseignant participation par courrier

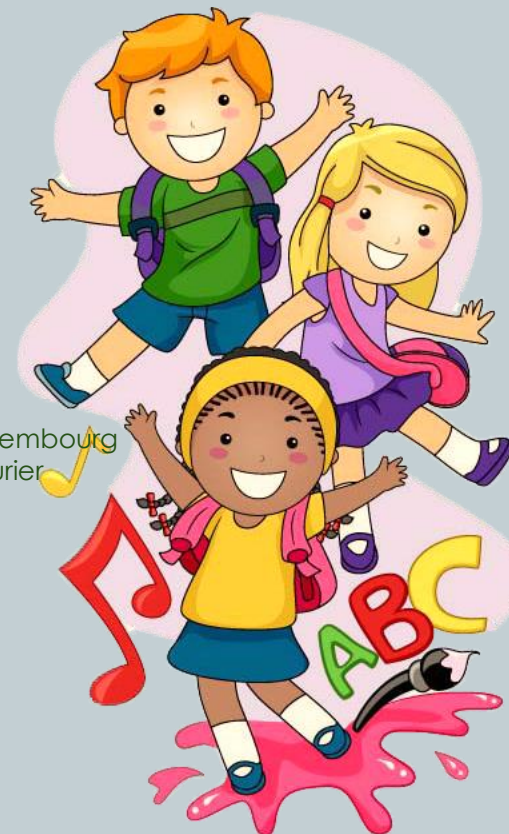
## ON PARLE



## COMMENT PARTICIPER

Email [autisme@uni.lu](mailto:autisme@uni.lu)  
Téléphone +352 46 66 44 9733

Pour en savoir plus sur notre recherche, consultez le site [autisme.uni.lu](http://autisme.uni.lu)





THANK YOU FOR  
YOUR ATTENTION

Looking forward to  
questions and feedback!

## Discussion Topics :

1. Other influential factors we should consider?
2. Suggestions for statistical analyses
  - Group differences
  - Additional SEM ?
3. Other questions, comments?

# REFERENCES

- American Psychiatric Association (2013). Neurodevelopmental Disorders. In *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>.
- Costa, A. P., Steffgen, G., & Vögele, C. (2019). The role of alexithymia in parent child interaction and in the emotional ability of children with autism spectrum disorder. *Autism Research*, 12(3), 458-468. <https://doi.org/10.1002/aur.2061>
- Estes, A., Rivera, V., Bryan, M., Cali, P., & Dawson, G. (2011). Discrepancies between academic achievement and intellectual ability in higher-functioning school-aged children with autism spectrum disorder. *Journal of autism and developmental disorders*, 41(8), 1044-1052. <https://doi.org/10.1007/s10803-010-1127-3>
- Franco M., Steffgen, G., & Costa, A.P. (in preparation). Social skills in multilingual children with autism.
- Frostad, P., & Pijl, S. J. (2007). Does being friendly help in making friends? The relation between the social position and social skills of pupils with special needs in mainstream education. *European Journal of Special Needs Education*, 22(1), 15-30. <https://doi.org/10.1080/08856250601082224>
- Greisen, M., Hornung, C., & Schiltz, C. (1986). Study report I: The role of home language and comprehension of the instruction language in non-native speaker's relative underachievement in mathematics in a multilingual education system. In *Taking language out of the equation: The assessment of basic math competence without language* (Doctoral dissertation, University of Luxembourg, Luxembourg).
- Humphrey, N., & Lewis, S. (2008). 'Make me normal' The views and experiences of pupils on the autistic spectrum in mainstream secondary schools. *Autism*, 12(1), 23-46. <https://doi.org/10.1177/1362361307085267>
- Ladd, G.W. (2005). *Children's peer relations and social competence: A century of progress*. Yale University Press.
- Manti, E., Scholte, E. M., & Van Berckelaer-Onnes, I. A. (2011). Development of children with autism spectrum disorders in special needs education schools in the Netherlands: a three-year follow-up study. *European Journal of Special Needs Education*, 26(4), 411-427. <https://doi.org/10.1080/08856257.2011.597172>
- Martini, S. F. (2021). *The Influence of Language on Mathematics in a Multilingual Educational Setting* (Doctoral dissertation, University of Luxembourg, Luxembourg).
- Meier, C. R., DiPerna, J. C., & Oster, M. M. (2006). Importance of social skills in the elementary grades. *Education and treatment of children*, 409-419. <https://www.jstor.org/stable/42899893>
- Miller, L. E., Burke, J. D., Troyb, E., Knoch, K., Herlihy, L. E., & Fein, D. A. (2017). Preschool predictors of school-age academic achievement in autism spectrum disorder. *The Clinical Neuropsychologist*, 31(2), 382-403. <https://doi.org/10.1080/13854046.2016.1225665>
- Ochs, E., & Schieffelin, B. (1984). Language acquisition and socialization. In R. Shweder, & R. Levine (Eds.), *Culture Theory: Essays on Mind, Self and Emotion* (pp. 276-320). Cambridge University Press.
- Philofsky, A., Fidler, D. J., & Hepburn, S. (2007). Pragmatic language profiles of school-age children with autism spectrum disorders and Williams syndrome. *American Journal of Speech-Language Pathology*, 16, 368-380. [https://doi.org/10.1044/1058-0360\(2007\)040](https://doi.org/10.1044/1058-0360(2007)040)