

Special and Inclusive Education Project

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1. Group Composition:

- 1) Presenters: Milan Nesterenko, Mykhail Poddenezhnyi
- 2) Target Group created by ourselves (with the help of an LLM)

2. Description of the Target Group:

- 1) Age Range: 9-11 years old (elementary school)
- 2) Number of children: 4
- 3) Relevant individual characteristics:
 - a. John – a physically disabled 9 year old boy who uses a manual wheelchair due to Spina Bifida (that inhibits his leg function), otherwise upper body strength and coordination, as well as cognitive ability, is typical. Apart from his disability, he's a cheerful sociable boy who enjoys studying.
 - b. Jane – a 10 year old girl with a high functioning ASD, her vocabulary and verblity are good but she struggles with social cues and gets overwhelmed by loud or chaotic noise. She also loves structure and clear instructions.
 - c. Sam – an enthusiastic 10 year old boy with ADHD (hyperactive / impulsive type). He's very friendly and enthusiastic, but often struggles to wait for his turn and tends to interrupt. He has a hard time following long instructions (including verbal).
 - d. Sara – an 11 year old immigrant girl, even though she's been living in the current country for a few years now, her language proficiency is between intermediate and upper intermediate depending on the context (better in school setting, harder in social setting), she may struggle with unusual words or fast speech, and her shyness is further fuelled by her feeling isolated culturally from her peers.
- 4) Group dynamics:
 - a. John can't access stairs or rough terrain, needs activities at accessible heights.

- b. Jane may shut down if the activity gets too loud, chaotic, or unstructured; and she may be incompatible with Sam's hyperactivity if left unchecked .
- c. Sam may end up disrupting the flow of the activity, or missing out on the rules and explanations.
- d. Sara may misunderstand complex verbal rules (or if they are not clear enough), and she may feel too shy or isolated to ask her peers for explanations. She is most comfortable around John because of how friendly he is.

3. Activity Design:

The activity will be a mix of a scavenger hunt and puzzle-solving, in order to engage and face the needs of every child. To further help to achieve that, the children will be designated roles best suited for their preferences and conditions. The activity will take roughly 25 minutes and can take place in a school playground/gym/community hall setting (preferably area all of the children are familiar with). The idea is for the children to cooperate and find the coloured envelopes with a few big puzzle pieces hidden around the territory (around six locations total as to not exhaust the children), bring them back to the "operation base" and complete a simple picture. The catch is that only one of the children will have a map and will have to coordinate other teammates via walkie-talkie(s) to achieve maximum efficiency, and every other member will also have an assigned role that most suits their character.

- 1) Goals: to practice social interaction, working in groups, distributing the responsibility; to foster problem solving skills; to include children in activities and ensure they have roles that match their strengths.
- 2) Materials: table (wheelchair height accessible), walkie-talkies, coloured paper, puzzle pieces, printed out instructions with pictograms
- 3) Steps:
 - a. The teacher gathers the group (seated so that everyone is at John's eye level) to briefly explain the rules, alongside provided pictogram instruction sheets.
 - b. The teacher assigns the roles to children:
 - 1. John will stay at the "base" and read the map to coordinate his teammates – this satisfies his personality and physical needs.
 - 2. Sam will be the one receiving directions via a walkie-talkie (e.g. in the cafeteria, under the playground, etc.) and bringing back

the envelopes – this satisfies his hyperactivity and need for stimulation.

3. Sara will go with Sam in order to help him look for the coloured envelopes – since they are colour-coded it's also easier for her to not mix up any complicated instructions, and she can help regulate Sam – plus it will be a good opportunity to mingle with someone new to her.
 4. Jane will stay at the “base” with John, and her role will be to assemble the big puzzle pieces from envelopes into a complete picture – just the kind of structured and non-overwhelming assignment she could enjoy.
- c. Once all the puzzle pieces are collected and assembled, the group will trade the resulting picture for some snacks or stickers.

4. Mind Map

- 1) Key considerations: physical accessibility, fulfilment of the emotional and communicatory needs, social inclusivity.
- 2) Adaptations made for individual children:
 - a. John: since it's hard for him to be as mobile as other children, he's gotten the role of a stationary coordinator – which both makes him crucial to the scavenger hunt activity but also doesn't require him to move around difficult terrain. His leadership and problem-solving skills also make him a good fit for this role
 - b. Jane: since she loves calm and structured activities, she's also staying at the base with John – away from all the chaos and running around, and she has a clear well-defined task of assembling the picture using puzzle pieces.
 - c. Sam: since it's hard for him to concentrate on a single monotonous task (like the one Jane has), and he seems to have a lot of spare energy, he's been assigned the role of a runner – constantly able to communicate with John to check up the instructions and constantly being on the move – both for his own and his team's satisfaction.
 - d. Sara: since her task doesn't require complex instructions (she only has to find the coloured envelopes and run around the territory with Sam), and has a buddy to model the behaviour, she can be at ease and be equally involved in the activity. Since she feels isolated from her peers, Sam's talkativeness may also help her mitigate that feeling.

5. Literature and Resources:

1) Implied theories:

- a. Social model of disability for John (e.g. making the environment suitable for him).
- b. The TEACCH (Treatment and Education of Autistic and Related Communication Handicapped Children) approach for Jane (ASD).
- c. Behavioural regulation through movement for Sam (ADHD).
- d. Vygotsky's Scaffolding / Peer Modeling through Sam for Sara.

2) Citations:

- a. Oliver, M. (1996). Understanding disability: From theory to practice. St. Martin's Press. – *John's social disability model*.
- b. Mesibov, G. B., Shea, V., & Schopler, E. (2004). The TEACCH approach to autism spectrum disorders. Springer. <https://doi.org/10.1007/978-0-306-48647-0>. – *a structured, visual learning method for individuals with Autism Spectrum Disorder (ASD), focusing on independence, routine, and adapting environments to leverage visual strengths, using tools like visual schedules, workstations, and task boxes to make activities predictable, reduce confusion, and foster self-reliance in educational and daily settings*
- c. Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). Harvard University Press. – *Vygotsky's concept of the Zone of Proximal Development (ZPD) was used to design the peer-support mechanism for Sara (Language/ELL), by pairing her with a typically developing peer buddy whom she could copy.*