



## Making use of autistic children's special interests and cognitive strengths

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Autistic people present with intense interests which we will refer to as special interests. It is increasingly suggested that special interests be used with autistic children for academic learning, and that they may be a useful way to keep autistic students motivated. Numerous strengths and capacities have been reported in autism research (e.g. visual/auditory memory, special abilities in reading/mathematics, detecting irregularities) which could also be used to foster learning. Though often recommended to both parents and teachers, these promising avenues can be tricky to transfer into action!

Autistic students have specific pedagogical and educational needs in line with their particularities, and educators often report feeling unequipped to address these needs<sup>1</sup>. As psychoeducation researchers, we interact with both educational and social services. In doing so, we noticed that the same question often arose: How

do we use autistic pupils' strengths and interests to optimise their potential? We began our project with this question in mind. Indeed, it has been consistently identified by both researchers and educators that a lack of knowledge about autism, little training on available interventions and the stress experienced when welcoming an autistic pupil in the classroom for the first time can all negatively impact academic achievement in autistic students<sup>2</sup>.

We started by examining the scientific literature on cognitive processes in autism, as well as commonly reported preferred interests and ways to effectively use these interests and strengths in educational settings. This allowed us to suggest intervention strategies aimed at promoting school inclusion, achievement, motivation, optimising potential and ultimately maximizing quality of life at school for autistic children. We created an

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<sup>1</sup> Gunn, K. C. M., & Delafield-Butt, J. T. (2016). Teaching children with autism spectrum disorder with restricted interests: A review of evidence for best practice. *Review of Educational Research*, 86(2), 408-430. doi:10.3102/0034654315604027

<sup>2</sup> Cappe, É., Smock, N., & Boujut, É. (2016). Scolarisation des enfants ayant un trouble du spectre de l'autisme et expérience des enseignants: Sentiment d'auto-efficacité, stress perçu et soutien social perçu. *L'Évolution Psychiatrique*, 81(1), 73-91. doi:10.1016/j.evopsy.2015.05.006




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innovative tool – a questionnaire documenting preferred interests and cognitive strengths, and an intervention guide with school intervention strategies for autistic children aged 6 to 18 attending regular school. This tool allows for an individualised approach, based on the child’s interests and strengths. In practice, the questionnaire is filled out by someone close to the child (ideally the children themselves). Then, the questionnaire is handed over to the educator who can independently look up the strategies included in our intervention guide, to find out how to leverage the interests and strengths identified in the questionnaire. An information section, included in the guide, will help educators to better understand learning processes in autism.

To build this questionnaire, we began with a literature review on preferred interests and cognitive strengths in autism. From these sources, we extracted a first list of strengths and interests often found in autism. Some items were inspired by or directly pulled from existing questionnaires. A preliminary version of the questionnaire was then revised by autism experts. Experts were asked to rate how clear, concise, and appropriate to its category (strength or interest) each item was. Items with low scores on all three aspects were removed and other items modified according to expert suggestions. A preliminary version of the intervention guide was then created based on current evidence for autism interventions. Alongside this process, we collected scientific material on how autistic people learn, to include in an information section of the guide. The same revision method used for our questionnaire allowed us to refine the guide. A preliminary version of the guide was therefore presented to autism experts, who rated the clarity and conciseness of each item as well as the appro-

priateness of the intervention suggested for each interest and strength. Low scoring items were removed or revised. Experts also provided comments on the guide’s user instructions and structure, which we integrated. Both sections of this tool thus underwent content validation, in order to ensure that the interventions suggested were relevant to the interests and strengths identified.

This iterative process led to the development of a unique tool based on an individualised approach. It allows for close identification of the child’s strengths and interests, which could be of use in educational settings to allow the child to reach their full potential. Unlike other available tools, this questionnaire and guide do not require training in psychometrics. However, we do not intend to replace recommendations issued by resource staff, but rather to offer a tool which complements professional expertise and other measures. The questionnaire can be used alone or with the intervention guide. The intervention guide offers multiple strategies to implement and promote learning.

The questionnaire and guide will be available in the spring 2021 on the RNETSA website, along with an introductory video to guide tool use. We are currently working on an adapted version of this tool for residential settings, to be made available in the spring. The full thesis project will be available shortly at the following address: <http://di.uqo.ca/> 

Reference:

St-Laurent, A. (2020). *Développement d’un outil de mesure et d’un guide d’intervention à l’utilisation des intérêts de prédilection et des forces cognitives en milieu scolaire chez les enfants et adolescents autistes de 7 à 18 ans* [mémoire de maîtrise, Université du Québec en Outaouais, Canada]. <http://di.uqo.ca/>.