

USING HEURISTICS AND ‘TEACCH’ MATERIALS IN PROBLEM SOLVING WITH STUDENTS WITH ASPERGER SYNDROM

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This research aims to contribute to inclusive education regarding the needs of children with Asperger Syndrom (AS), in terms of the alterations of central coherence and executive functions: difficulties to infer meanings from communicative situations, verbal comprehension, organisation, predictions, self-regulation and flexibility of thought (Bae et al., 2015). Specifically, it considers how a problem-solving approach (PS) can be adapted for students with AS, and trials classroom-based strategies that can be applied in any classroom. This approach allows for encouraging the organisation of data and cognitive flexibility through the incorporation of TEACCH material and different strategies along Polya’s resolution phases (Liljedahl et al., 2011). This enables the teacher to design an environment conducive to diversity of thinking through the application of different heuristics, generalizable to other contexts.

A two-day PS workshop was organised for 16 participants (6-18 years old) diagnosed with AS, grouped according to age and abilities by the collaborating AS association psychologist. The problems were selected in terms of content and applicability of the heuristics, adding manipulatives, pictograms and visual organisers for supporting the PS. Both the materials and the problems were adapted reducing the amount of information and numerical relationships, after being tested with students not diagnosed with AS and with the same ages as the sample. The units of information, obtained from children’s productions and video transcriptions, are categorized according to the heuristic employed and the AS characteristic showed.

Visual representation was the most frequently used heuristic at all stages, by applying tables and manipulatives for searching a pattern, trial and error and going backwards. Hence, we propose the deployment of TEACCH material and heuristics as a support for those characteristics associated with SA, or to cover specific needs. This study continues through long-term PS workshops in 2022, working with 4 children diagnosed with AS on the appliance of heuristics supported by TEACCH material.

References

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