

**The Validation of the Person House Tree Drawing Assessment for Children Aged
from Five to Ten Years in Mainstream Education.**

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ABSTRACT

Drawing is a spontaneous activity in childhood. Various drawing assessments are currently used in education and health fields to assess aspects of children's cognitive and emotional development from either a developmental or a clinical perspective. Recent research has shown a need for further studies on drawing assessments. The Person House Tree drawing (PHT) assessment was developed by McAllen from a developmental perspective based on the pedagogy of Rudolf Steiner and has been used without rigorous research to support its application.

Drawing has been shown to assess various aspects of cognitive development related to representational thought, working memory, spatial ability and children's fine motor skills. McAllen proposed that the PHT drawing of the person typified the child's cognitive representation of their body geography; features related to spatial awareness established spatial ability; and execution of the drawing demonstrated fine motor ability.

This study aimed to conceptualise elements of children's drawings in a systematic way to identify the features of the PHT drawing that were significant for typical and atypical children, aged from five to ten years of age in mainstream education. Plus assess the ability of the PHT drawing assessment to predict the likelihood of a child being atypical. The initial part of the study involved the development of a scoring system for the PHT drawing assessment. A pilot study was conducted to refine the scoring system and establish face validity for the PHT scoring system. The inter-rater reliability was investigated and shown to be strong (Cohen's Kappa 0.83). Next the PHT drawing assessment was administered to 546 children aged from five to ten years in mainstream education in public schools in the Australian

Capital Territory. A teacher checklist was used to identify children as typical or atypical in the data sample. Atypical children were identified by the teacher as receiving or requiring additional resources to learn and participate in school.

The data were analysed with SPSS 17 software using an analysis of variance (ANOVA) procedure and followed by a logistic regression. The results established between 28 to 69 statistically significant features for the Person (58), the House (28), the Tree (35) and the complete PHT drawing (69) for typical children and seven to ten statistically significant features for the Person (10), the House (7), the Tree (9) and the complete PHT drawing (9) for atypical children. The final model from the logistic regression analysis showed discrete sets of 13 to 18 features for the Person (18), the House (13), the Tree (14) and the complete PHT drawing (18) that had robust predictive validity for identifying the likelihood that a child was atypical.

The results of this study found that typical children showed more complex body geography, increased spatial awareness and more numerous fine motor skills demonstrated in their PHT drawing compared to their atypical peers. The results give strong support for the PHT drawing and the scoring system developed in this study to be used as a screening instrument by both teachers and other professionals to predict the likelihood of a child being atypical.

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LIST OF ABBREVIATIONS

ACT	Australian Capital Territory
ADHD	Attention Deficit Hyperactivity Disorder
ANOVA	Analysis of variance
ASD	Autism Spectrum Disorder
DAP	Draw A Person test
DCD	Developmental Coordination Disorder
DFA	Discriminant Function Analysis
ETD	Education and Training Directorate in the ACT
ESL	English as a second language
FEATS	Formal Elements Art Therapy Scale
GHDT	Goodenough Harris Drawing Test
HFD	Human Figure Drawing test
H-T-P	House-Tree-Person drawing test
KFD	Kinetic Family Drawing
LD	Learning difficulties
NSW	New South Wales
PDT	Projective drawing test
PHT	Person House Tree drawing assessment
PPAT	Person Picking an Apple from a Tree drawing test
SPD	Sensory Processing Disorder