



**University
of Victoria**

Graduate Studies

**Notice of the Final Oral Examination
for the Degree of Master of Arts**

of

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BEd (University of Western Ontario, 2011)

HBA (University of Western Ontario, 2009)

**“Evaluating Working Memory Deficits on Writing in Youth with
Autism Spectrum Disorder (ASD)”**

Department of Educational Psychology and Leadership Studies

Thursday, March 29th, 2018

9:00 a.m.

MacLaurin Building

Room A341

Supervisory Committee:

Dr. Sarah Macoun, Department of Educational Psychology and Leadership Studies, University of
Victoria (Supervisor)

Dr. Donna McGhie-Richmond, Department of Educational Psychology and Leadership Studies, UVic
(Member)

Dr. John Walsh, Department of Educational Psychology and Leadership Studies, UVic (Member)

External Examiner:

Dr. Ruthanne Tobin, Department of Curriculum and Instruction, UVic

Chair of Oral Examination:

Prof. Ajtony Csaba, School of Music, UVic

Dr. David Capson, Dean, Faculty of Graduate Studies

Abstract

Few studies have researched writing difficulties in individuals with Autism Spectrum Disorder (ASD) and the factors responsible for such difficulties. The current study sought to examine writing difficulties in individuals with ASD and the contribution of working memory (WM) difficulties. The investigation consisted of five randomly selected youth formally diagnosed with ASD (under DSM-IV-TR, higher functioning Autistic Disorder or Asperger's Disorder), and five youth with no formal diagnosis. Participants completed a counterbalanced battery of tests which assessed their written expression and WM abilities. Due to challenges in recruiting enough participants for purposes of quantitative research, the study mainly used a case-study approach. The study showed that participants with ASD (group with ASD) had more hardship with writing and WM tasks than participants without ASD (traditionally developing [TD] group). Nonparametric analyses revealed that writing and WM were not related, however, these findings are cautionary due to low participation numbers in the investigation. Case-study analysis showed that the group with ASD underdeveloped writing skills notably in the areas of word count, vocabulary, spelling and grammar. Regarding WM abilities, the group with ASD had variable patterns of difficulties; some had strengths in verbal WM while others did not. Unfortunately, the study could not determine if writing difficulties were due to WM or executive function problems. Further studies investigating the relationship between writing and WM, particularly in individuals with ASD are encouraged.