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**A case study of  
gifted visual-spatial learners**

*A thesis presented in partial fulfilment of  
the requirements for the degree of  
Masters in Education*

*Massey University, New Zealand*

*Sharon Mansfield, 2014*

## **Acknowledgements**

Carrying out educational research and writing up the results to share what has been found has been an exciting opportunity. Sharing personal experiences with an unknown audience has been slightly daunting for me and I sincerely thank those who have similarly put themselves into my hands, and had faith in my ability to express the essence of their experiences. The fact that participants in this research project were, without exception, so eager to contribute, is a measure of their common desire to add what they could to the telling of this story. It was truly a special privilege to be welcomed into your homes, classrooms and workplaces and I am very grateful for the open and reflective conversations that took place between us.

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**Dedication:**

This is for all gifted visual-spatial children – those with the gift of magic in their minds and potential to create unique solutions to common problems – children that the rest of the world need to nurture, now more than ever.

## **ABSTRACT**

This thesis explores a group of learners who have exceptional visual-spatial abilities relative to their same age peers. These abilities give them the potential to achieve success in areas where the capability to visualise three dimensional images and manipulate those images in space contributes to a creative problem-solving mindset that is highly valued in today's globally competitive world of innovative technology.

Literature reviewed to background the investigation topic suggested characteristic differences in the way these learners process information can create barriers to successful classroom learning. It was reported that consequent areas of challenge within traditional academic domains, together with their exceptional ability being not often recognised or valued in schools, contributes to gifted visual-spatial learners being an "invisible group". These findings lead to the development of a primary research aim to describe these differences and explore how they affect the learning experiences of these students. As part of this investigation, the extent to which the exceptional visual-spatial abilities were recognised and how well their need for a differentiated curriculum was understood was also evaluated.

A case study approach has been utilised to create in-depth descriptions of three students who, following completion of a cognitive assessment profile by a professional with acknowledged expertise and knowledge about gifted students, had been identified as gifted visual-spatial learners. A photo elicitation technique was incorporated into the case study methodology as it was considered that this would mesh well with the characteristic processing style of the participants. Semi-structured interviews were conducted with participants using photographs that they had taken in response to stimulus questions posed at an initial meeting. The photographs provided a concrete visual product that linked to personal experiences as a prompt for communication to encourage meaningful discussion. Observations were undertaken of the learners in learning environments and semi-structured interviews were carried out with teachers and parents. Further data was gathered from analysis of unobtrusive artefacts such as assessment reports and samples of work.

The resulting information is presented as three case descriptions followed by a discussion section. Particular attention has been given to describing learning characteristics that set these students apart and discussion of how these differences impact on academic achievement. Aspects that supported successful learning experiences were also identified and recommendations for classroom practice and for future research have been made.

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