

**The use of interactive stories to deal with awareness of high  
sensitivity in middle childhood**

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## TABLE OF CONTENTS

### **The use of interactive stories to deal with awareness of high sensitivity in middle childhood**

ACKNOWLEDGEMENTS.....	i
FOREWORD.....	vii
ABSTRACT.....	viii
OPSOMMING.....	ix

<b>SECTION A: ORIENTATION TO THE RESEARCH .....</b>	<b>1</b>
1. CONTEXTUALISATION AND PROBLEM STATEMENT .....	1
2. AIM AND OBJECTIVES OF THE STUDY.....	5
3. CENTRAL THEORETICAL ARGUMENT .....	6
4. SCIENTIFIC PARADIGM .....	6
4.1 GESTALT PHILOSOPHY .....	6
4.2 PHENOMENOLOGICAL APPROACH .....	7
4.3 HOLISTIC APPROACH.....	7
5. DESCRIPTION OF CONCEPTS.....	8
6. METHOD OF INVESTIGATION.....	10
6.1 LITERATURE REVIEW .....	10
6.2 EMPIRICAL STUDY .....	10
6.2.1 RESEARCH DESIGN.....	10
6.2.2 PARTICIPANTS .....	12
6.2.3 INTERVIEW SCHEDULE .....	13
6.2.4 METHODS OF DATA COLLECTION .....	14
6.2.5 DATA ANALYSIS .....	15
6.2.6 PROCEDURES .....	16
7. ETHICAL ASPECTS.....	18
8. RESEARCH LIMITATIONS .....	20
9. REPORT LAYOUT .....	22

10. ACRONYMS.....	23
REFERENCES .....	24
<b>SECTION B: ARTICLE.....</b>	<b>31</b>
<b>ARTICLE 1: THE USE OF INTERACTIVE STORIES TO DEAL WITH AWARENESS OF HIGH SENSITIVITY IN MIDDLE CHILDHOOD.....</b>	<b>31</b>
Introduction .....	33
Signs of sensory overstimulation.....	35
Perspectives flowing from the environment .....	37
Childhood coping strategies .....	38
Positive characteristics of the HS .....	39
Mental health .....	40
Gestalt perspective.....	42
Research goals .....	43
Methods .....	44
Participants and procedure.....	44
Interviews .....	47
Interactive story .....	48
Interview schedule.....	48
Ethical aspects .....	50
Results .....	52
Qualitative analysis .....	52
Discussion.....	62
Conclusion.....	71
Recommendations .....	72
Research Limitations.....	73
REFERENCES .....	76
<b>SECTION C: SUMMARY, EVALUATION, CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>83</b>

1. INTRODUCTION .....	83
2. SUMMARY OF THE RESEARCH.....	83
3. EVALUATION OF THE RESEARCH .....	84
3.1 Aims and objectives of the study .....	84
3.2 Aims and objectives that were reached through this study.....	85
3.3 Significant findings.....	86
3.4 Testing the theoretical argument .....	87
3.5 Dissemination of information .....	87
4. CONCLUSIONS.....	87
5. RECOMMENDATIONS FOR RESEARCH, POLICY AND PRACTICE .....	88
5.1 Recommendations for research .....	88
5.2 Recommendations for policy .....	89
5.3 Recommendations for practice .....	89
6. SUMMARY STATEMENT .....	90
REFERENCES .....	92
<b>SECTION D :ADDENDA .....</b>	<b>93</b>
Addendum 1: Guidelines for the Journal of Applied Developmental Psychology.....	92
Addendum 2: Sampling criteria for highly sensitive children .....	101
Addendum 3: Focus group interview schedule .....	102
Addendum 4: Extracts from 'THE SENSITIVE HERO' .....	103
Addendum 5: The highly sensitive child 's interview schedule .....	105
Addendum 6: Consent forms for the parents .....	106
Addendum 7: Assent forms for the Child.....	108
Addendum 8: Consent forms for the school representative .....	109
Addendum 9: Permission letter from the Gauteng department of education.....	114
Addendum 10: Permission letter from Tshwane South district.....	115
Addendum 11: Consent form for the teachers .....	115
Addendum 12: Results from the HSC interview schedule.....	118

## **SECTION E: CONSOLIDATED LIST OF REFERENCES ..... 120**

### **INDEX OF TABLES**

Table 1: Two-way frequency table with percentages: attitude by level of awareness	59
Table 2: Two-way frequency table with percentages: attitude by age.....	60
Table 3: Two-way frequency table with percentages: attitude by gender.....	60
Table 4: Identification with being highly sensitive.....	62

### **INDEX OF GRAPHS**

Graph 1: Level of awareness: from highest to lowest .....	54
Graph 2: Level of awareness: age from youngest to oldest .....	56
Graph 3: Level of awareness and gender (boys from youngest to oldest) .....	57
Graph 4: Level of awareness and gender (girls from youngest to oldest) .....	57
Graph 5: Level of awareness and the attitude towards being 'different' and 'flawed'	58

Perls wrote, on Gestalt therapy:

'The environmental demand to be what he is not, the demand to actualize an ideal rather than to actualize himself. He becomes lopsided. Some of his potential becomes alienated, repressed, projected. Other characteristics are put on as phony behaviour, requiring strain with self support, exhaustion without satisfaction' (Perls, Hefferline & Goodman, 1952:vi).

## FOREWORD

This dissertation is presented in article format in accordance with the guidelines set out in the *Manual for Postgraduate Studies – 2011* of the North-West University. The technical editing was done according to the guidelines and requirements described in Chapter 2 of the *Manual*. The article has been submitted to an academic journal for possible publication. Guidelines for submission to the *Journal of Applied Developmental Psychology* are attached (see addendum 1).



## **ABSTRACT**

One in five children are born highly sensitive (HS), with nervous systems that are more sensitive to sensory subtleties. The highly sensitive child (HSC) presents with behaviour that is often a way of coping with sensory overload from their environment. The symptoms of HS are often mistaken for shyness, introversion, timidity and a low sensory threshold. Because of their lack of understanding, teachers mislabel and misdiagnose these children as being mentally ill, or as suffering from, inter alia, ADHD or learning problems. When such children (HSC) are misunderstood, they begin to feel 'different' and 'flawed', which can lead to low self-esteem. The purpose of this study is to explore perceptions by HS children in middle childhood, to explore how aware they are of HS, and to discover the extent to which they have been affected by negative labelling often caused by being misunderstood, misdiagnosed and misinterpreted. The structured interviews conducted with HSC comprised of an interactive story, which had been written and illustrated to create explicit awareness of HS. After the storybook had been read, an interview schedule on HS was applied. Next, a focus group interview was conducted with the teachers to gather more rich data, thereby ensuring its trustworthiness. The aim was to explore the teachers' perceptions of HSC in middle childhood. This exploration was necessary for making effective recommendations for managing and supporting HSC, so that the children can reach their full potential. Many HSC are gifted, and often become visionaries and pioneers in their particular fields.

## **KEY WORDS:**

*High sensitivity, Middle childhood, Gestalt therapy, interactive story, paradoxical theory of change, giftedness.*

## OPSOMMING

Een uit elke vyf kinders word hoogs sensitief (HS) gebore, met 'n senuweestelsel wat meer sensitief is vir sensoriese subtiliteite. Die hoog sensitiewe kind (HSK) kom te voorskyn met gedrag wat dikwels hul manier is van hantering van sensoriese oorlading in hulle omgewing. Die simptome van HS word dikwels verwar met skaamheid, introversie, skugterheid en lae sensoriese drumpels. Weens 'n gebrek aan begrip; etiketteer en diagnoseer onderwysers hierdie kinders verkeerdelik as geestesongesteld, met aandagafleibaarheid of leerprobleme. Wanneer hierdie HSK misverstaan word, begin hulle 'anders' voel en 'vol gebreke', wat kan lei tot 'n lae selfbeeld. Die oogmerk van hierdie studie is om persepsies by HS kinders in middel kinderjare te ondersoek, om te bepaal hoe bewus hulle is van HS, en om uit te vind tot watter mate hulle geaffekteer is deur negatiewe etikettering, dikwels veroorsaak deurdat hulle verkeerd verstaan, gediagnoseer of beoordeel is. Gestruktureerde onderhoude is met die HSK gevoer, bestaande uit 'n interaktiewe storie wat geskryf en geïllustreer is om duidelike bewusmaking van HS te skep. Na lees van die storieboek, is 'n onderhoud skedule oor HS toegepas. Vervolgens is 'n fokusgroep onderhoud met onderwysers gevoer, om ryker data te verkry, en betroubaarheid te verseker. Die doel was om die onderwysers se persepsies van HSK in die middel kinderjare, te ondersoek. Die navorsing was nodig om aanbevelings vir meer effektiewe bestuur en ondersteuning van die HSK te maak, sodat hulle hul volle potensiaal kan bereik, aangesien vele HSK begaafd is, en dikwels baanbrekers en pioniers op hulle gebied word.

## **SECTION A: ORIENTATION TO THE RESEARCH**

### **1. CONTEXTUALISATION AND PROBLEM STATEMENT**

The term high sensitivity (HS) was introduced in 1996 by Elaine Aron, with reference to highly sensitive persons (HSP) and in 2002 with reference to highly sensitive children (HSC) (Evers, Rasche & Schabracq, 2008:190). For the purpose of this study, the abbreviations HS, HSP and HSC will be used hereafter. Symptoms of HS are often confused with shyness, introversion, inhibition, emotionality, fearfulness, neuroticism, depression, negativity, timidity (Aron & Aron, 1997:362; Aron, 2002:xii) and a low sensory threshold (Aron, 2002:xii). Aron's work serves as a basis for this section, because she pioneered the research on HS (Aron, 1999:xv).

According to Aron, 15% to 20% of humans have nervous systems that are more than usually sensitive to subtle sensory input (Aron, 1999:ix; Aron, 2002:xi; 2004:359; 2006:16). Basic information is processed and analysed more thoroughly (Aron, 1999:7; Aron, 2002:7), causing quicker over-stimulation and over-arousal (Aron, 1999:7; 2002:51; 2004:358). HS had already been identified in 1913 by Carl Jung, who defined it as 'innate sensitiveness' (Aron, 2004:337; 2006:11). Jung proposed that children who experienced an adverse childhood and had been born with an 'innate sensitiveness' were prone to becoming more anxious and depressed than the not-so-sensitive child (Aron, 2004:356; 2006:11). Further research into 'sensory processing sensitivity' (Aron & Aron, 1997:345; Aron, 2004:337; Liss, Timmel, Baxley & Killingsworth, 2005:2; Aron, 2006:12; Hofmann & Bitran, 2007:7; Liss, Mailloux & Erchull, 2008:6; Ahadi & Basharpour, 2010:4; Aron, A., Ketay, Hedden, Aron, E., Markus & Gabrielli, 2010:221; Jagiellowicz, Xu, Aron, A., Aron, E., Cao, Feng & Weng, 2010:2) and 'temperamental sensitivity' (Aron, Aron, & Davies, 2005:191) supports Jung's view that those who present with HS are more prone to mental health issues than are the non-sensitive. According to Aron's statistics, 50% of clients in need of therapy are HS (Aron, 2006:21). However, if the HSC experienced a childhood during which they are free to express their sensitivity and feelings (Aron, 1999:26), they would not present with symptoms of depression, anxiety (Aron, 1999:66; 2002:27; Liss *et al.*, 2005:6; Aron, 2006:18; Jagiellowicz *et al.*, 2010:2), neuroticism (Aron, 1999:66; Jagiellowicz *et al.*, 2010:2) and shyness (Aron, 2002:27; Aron *et al.*, 2005:191; Jagiellowicz *et al.*, 2010:2).

Despite the research that has been carried out on HS, the trait is largely unknown among health practitioners, teachers and parents (Aron, 2002:3). There is only limited literature on HS (Aron & Aron, 1997:338; Aron, 1999:xv; 2004:1990; Ahadi & Basharpour, 2010:4), and the researcher has found that the academic articles that do refer to HSC use retrospective self-reports on the HSP experience (Aron & Aron, 1997:351; Neal, Edelman & Glachan, 2002:370; Aron *et al.*, 2005:182; Liss *et al.*, 2005:3; Meyer, Ajchenbrenner & Bowles, 2005:5), indicating possible methodological limitations (Aron & Aron, 1997:364; Aron *et al.*, 2005:192).

Most children presenting with HS are aware that there is something 'wrong' with them (Piechowski, 1996:367; Aron & Aron, 1997:351; Aron, 1999:122; 2002:11; Zeff, 2007:11), because they experience a feeling of being 'different' (Piechowski, 1996:367; Aron & Aron, 1997:351; Aron, 1999:67; 2002:141; 2004:358; Goldberg, 2005b:1; Aron, 2006:21) or 'flawed' (Aron, 2002:4), but are not sure why (Aron, 1999:3; 2002:280; 2004:358). Further, these children are often labelled fussy, shy, introverted (Aron, 2002:24-27; Goldberg, 2005b:1), timid and mentally ill (Aron, 2002:24-27). Consequently, their self-esteem is low and they feel ashamed (Aron, 2002:114-115; Oaklander, 2006:142).

The problem is that negative labelling may prevent HSCs from discovering and using their talents (Aron, 2002:115), and many of them are gifted (Aron, 2002:10; Goldberg, 2005a:1). They can be creative, conscientious, intuitive (Aron, 1999:132; 2002:7; Goldberg, 2005b:1; Zeff, 2007:12-13), empathetic (Aron, 2002:15; Goldberg, 2005b:1), reflective (Aron, 2002:311; Goldberg, 2005b:1; Zeff, 2007:6) and have a rich inner life (Frankl, 1964:35; Goldberg, 2005b:1). If these qualities were recognised and supported, it could lead to more visionaries and pioneers excelling in their fields (Aron, 1999:7).

The focus in this research is on middle childhood, defined by Berk (2009:6) as including six to eleven year-olds. Children in this age group may develop erroneous beliefs about themselves as they grow into adulthood, with the negative messages impairing and fragmenting every part of their lives (Oaklander, 2006:142). The presenting symptoms of HS, such as sensory over-arousal, social withdrawal, perfectionism (Aron, 2002:11; Goldberg, 2005b:1) or physical reactivity (Aron, 1999:27; Benham, 2005:6; Goldberg, 2005:1), are some of the ways in which HSCs avoid confronting tasks with which they feel unable to cope (Aron, 1999:84; 2002:280). This will negatively affect the growth

process and could lead to a poor sense of self (Oaklander, 2006:5-6). This is supported by Erikson's psychosocial theory, which puts the seven to eleven year olds at the stage of industry versus inferiority. In this stage, the child's task is to struggle with the conflict of achievement resulting from mastering activities and the feeling of inadequacy when industry is not mastered (Weiten, 2001:446). In addition, low self-esteem in gifted children has added implications in that it may lead them to feel defeated and subsequently avoid a task, because they do not feel able to live up to their gifted label (Fornia & Frame, 2001:385).

In this study, the researcher explored perceptions by the HS child in middle childhood, hereafter referred to as the HSC, to explore awareness of HS and to discover the extent to which children in middle childhood are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). While many tools can be used for awareness making (Oaklander, 2006:105), for the purpose of this study the researcher used an illustrated, interactive storybook specifically written to encourage explicit awareness of both the HS in middle childhood and their process of experiencing (Oaklander, 1978:59), because children aged between seven and eleven require concrete information that they can recognise directly if they are to think in an organised and logical fashion (Piaget, in Berk, 2009:247-249). Adding to this, adults use literature to guide children's thinking and to strengthen their characters (Pehrsson, 2006:6). The reason for this is that children can identify with the characters, and work through the problem with them, ultimately achieving insight into their own situation (Oaklander, 2006:113; Shrodes (1950) in Pehrsson, 2006:6). Storybooks help children of all ages (Oaklander, 1978:91) to put words to issues, thoughts and emotions when they are unable do this themselves (Pehrsson, 2006:7). Additionally the researcher required the teacher's perceptions to add insight into how HSC is displayed in the middle childhood, and to provide guidance and advice to teachers on how to understand, support and manage HS in middle childhood.

The study was significant in that it provided insight into the perceptions by HS children in middle childhood, to explore how aware they are of HS, and the extent to which children in middle childhood are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). The latter can lead to shame, passivity and helplessness (Aron, 2002:121) and prevent them from reaching their full potential. The fact that many of them are gifted is thus a problem. For

the purpose of this study, the researcher wrote and illustrated an interactive storybook specifically created to encourage awareness of HS, because no books or other tools were found commercially for this purpose, thus it can be said that the storybook could in the future, become a tool to deal with HS in the middle childhood. The perception by teachers who teach children in the middle childhood described how HS is displayed in the middle childhood, and provided guidance and advice to teachers on how to understand, support and manage HS in middle childhood. The formulation of the problem engages the reader in the specific focus of the study, and is regarded as the point at which clarity on the study is sought (Fouché & de Vos, 2011:89). The researcher, a teacher of children with barriers to learning, a published author of children's books, a student in Gestalt play therapy and an HSP herself, has found that symptoms of HS are often not understood by teachers (Aron, 2002:3) and the HSC themselves (Aron, 1999:4). The HS symptoms of sensory over-arousal are often misinterpreted as ADD/ADHD (Aron, 2002:247; Goldberg, 2005b:1) or barriers to learning (Aron, 2002:36; Goldberg, 2005b:1), and children are being incorrectly labelled as passive, stubborn (Aron, 2002:36) or sickly (Aron, 1999:48; 2002:11; Benham, 2005:6). The implication is that negative labelling of HS results in the child's feeling 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4), when in actual fact they may be gifted (Aron, 1999:4; 2002:10; Goldberg, 2005a:1). This research was valuable, because the researcher found very few studies written from the HSC's point of view. The focus was on the child in middle childhood who presents with symptoms of HS, to explore awareness of high sensitivity using an illustrated storybook, and the extent to which children in middle childhood are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27), and the teacher's who teach children in the middle childhood, to find out how HS is displayed in the middle childhood, and then to make recommendations for providing guidance and advice for teachers on how to understand, support and manage HS in middle childhood.

Based on the above problem statement, the following research questions were formulated:

- What are the perceptions by HS children in their middle childhood?

Sub-questions would be:

- What are the perceptions by teachers of the HSC in their middle childhood?
- How can an interactive storybook be used to deal with HS?

## **2. AIM AND OBJECTIVES OF THE STUDY**

Taking these facts into consideration, the researcher created an illustrated storybook as a mechanism to provide explicit awareness of HS for children in middle childhood. The overall aim was to gain a deeper understanding of HSC through the exploration of a storybook, specifically an interactive one, defined by the Macmillan online dictionary as involving people communicating with each other and reacting to each other. The purpose of the illustrated storybook was to achieve one of the primary goal of the study which was to explore the HS child's perceptions in middle childhood, to find out how aware children in the middle child are of HS, and to discover the extent to which these children are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). The perceptions by teachers who teach children in the HSC in middle the childhood, looked at how HS is displayed, in order to make recommendations for providing guidance and advice for the teachers on how to understand, support and manage HS in middle childhood. If a better way of support could be found, the HS could reach their full potential, because many of them are gifted (Aron, 2002:10; Goldberg, 2005a:1). The researcher also wished to develop a tool to create awareness of HS in middle childhood, to provide support to the HSC, and their teachers on how to manage, empower and reframe HS, because no resources have been found reflecting this topic. In addition, the research added to the limited literature available on the topic.

This aim resulted in the following objectives:

- To explore the perceptions by HS children in middle childhood, using an interactive storybook, to find out how aware children in the middle childhood are of HS, and the extent to which they are affected by the negative labelling.

- To explore the perceptions by teachers in the middle childhood to find out how HS is displayed; with the aim to understand, support and manage, HS in middle childhood.
- To write and illustrate a storybook that the HSC can identify with, with the aim of creating awareness of HS, so that it could be explored.

### **3. CENTRAL THEORETICAL ARGUMENT**

The central theoretical argument is that if perceptions by children in the middle childhood could be explored, using the interactive storybook as a tool to facilitate awareness of HS. Then insight gained from exploring the perceptions by HSC, and their teachers will lead to a better understanding of how the HSC experience their world, and whether they experience any difficulties as a result of negative labelling, often caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). The teachers' perceptions of how HS is displayed in the middle childhood would serve to make recommendations for providing guidance and advice for teachers on how to understand, support and manage HS in middle childhood. If a better way of support can be found then the HSC can develop to their full potential. As has been pointed out, many HSCs are gifted, and they often become visionaries and pioneers who excel in their fields. The interactive storybook could become a tool to support, understand and manage HS.

### **4. SCIENTIFIC PARADIGM**

Babbie (2010:33) defines a paradigm as a frame or model for observation and reasoning; this shapes what is seen and reveals how experiences are understood. For the purpose of this research study, the researcher adopted and worked from a Gestalt paradigm, which required a holistic and phenomenological approach (Parlett & Lee, 2005:44).

#### **4.1 GESTALT PHILOSOPHY**

Gestalt founders critically analysed contemporary philosophy to find a new way of looking at the human experience. Rather than questioning what did not work in other clinical models, they looked at what did work, and were open to those ideas that held the key to understanding normality. They viewed the individual's behaviour as the best solution possible, as opposed to judging people according to a universal 'should'



(Spagnuolo, Lobb & Lichtenberg, 2005:24-25). In Gestalt, the right to be different and unique is highly valued, and the focus is to develop and maintain a state of complete physical, mental, and social well-being. For this reason Gestalt therapy can be used on any person seeking to develop hidden potential, and a sense of well-being (Ginger, 2007:2-3). Oaklander (2006:46) adds that the Gestalt approach is not centred on changing behaviour, but rather on allowing children to become aware of their own processes that facilitate certain types of behaviour. The primary aim is to understand and be who they really are.

The purpose of this research was to understand the HSC, so phenomenological and holistic approaches were used.

#### **4.2 PHENOMENOLOGICAL APPROACH**

The phenomenological method means staying as close as possible to the individual's experience of how they make sense of their world (Joyce & Sills, 2001:16; Delport, Fouché & Schurink, 2011:305). The phenomenological perspective gives a greater place for each subjective experience, thus to what each person feels internally, than it does to socially perceptible external behaviour (Ginger, 2007:109). The researcher who uses the phenomenological approach, is required to view social life in an unbiased and open minded way, and is expected to bracket his or her own knowing, to describe the way members accomplish their own sense of structure (Delport *et al.*, 2011:317).

#### **4.3 HOLISTIC APPROACH**

Holism takes into account the whole person and their field. They are intimately and energetically related to everything and everybody else within it (Clarkson & Mackewn, 1993:35; Joyce & Sills, 2001:24). In addition, the field approach includes all the coexisting, mutually interdependent factors associated with a person and his environment (Clarkson & Mackewn, 1993:35). This means that everything is connected to something else and everything has a context or field in which it exists. In order to perceive or understand something, we need to look at the whole situation (Clarkson & Mackewn, 1993:35; Sills, Fish & Lapworth, 1995:77). The concept of holism is extended to viewing a person as a whole, believing that the body, mind and emotions cannot be separated. This holistic approach maintains that physical diseases have emotional and mental contributory factors (Clarkson & Mackewn, 1993:35; Sills *et al.*, 1995:65).

## 5. DESCRIPTION OF CONCEPTS

- ***High sensitivity***

According to Aron, 15% to 20% of humans have a nervous system that is more sensitive to subtle sensory input (Aron, 1999: ix; Aron, 2002: xi; 2004:359; 2006:16). Basic information is processed and analysed more thoroughly (Aron, 1999:7; Aron, 2002:7), causing quicker over-stimulation and over-arousal (Aron, 1999:7; 2002:51; 2004:358). This causes the HS and therefore the HSC to be more sensory sensitive, making them notice more than those who are not sensitive, and causing them to be more vigilant. They process information deeply and more thoroughly, and take longer to act, resulting in a greater emotional reaction (Aron, 2002:8-9). Even though there has been a great deal of research into sensitivity (Ochse, 1994:83; Piechowski, 1996:367-369; Dabrowski in Fornia & Frame, 2001:384-385; Hartmann in Jawer, 2005:105-106; Jawer, 2005:104-10), the researcher found Aron's pioneering work (Aron, 1999: xv) different, because it offered an explanation of how sensitivity worked. Aron has also renamed the trait to give a more accurate description of how to understand the sensitive child, as opposed to the inaccurate labels often used (Aron, 2002:xii). High sensitivity is also researched as sensory processing sensitivity (Aron & Aron, 1997; Aron, 2004; Liss *et al.*, 2005; Aron, 2006; Hofmann & Bitran, 2007; Liss *et al.*, 2008; Ahadi & Basharpour, 2010; Aron, A *et al.*, 2010; Jagiellowicz *et al.*, 2010), innate sensitiveness (Jung in Aron, 2004) and temperamental sensitivity (Aron *et al.*, 2005).

- ***Middle childhood***

According to Berk (2009:6), middle childhood is defined as those aged from six to eleven, while Erikson's psychosocial theory puts the seven to eleven year-olds at the stage of industry versus inferiority. In this stage, the child's task is to struggle with the conflict of achievement resulting from mastering activities, and the feeling of inadequacy when industry is not mastered (Weiten, 2001:446). Children in this age group may develop erroneous beliefs about themselves as they grow into adulthood, and the negative messages impair and fragment every part of their lives (Oaklander, 2006:142). Also, according to Piaget, children aged from seven to eleven years require concrete information that they can recognise directly in order to think in an organised and logical fashion (Berk, 2009:247-249).

- ***Interactive story***

Throughout the ages, adults have used literature to guide children's thinking and to strengthen their characters (Pehrsson, 2006:6). This is because children can identify with the characters in the stories, and work through problems with them, ultimately achieving insight into their own situation (Oaklander, 2006:113; Shrodes (1950) in Pehrsson, 2006:6). In addition, children of all ages (Oaklander, 1978:91) can use storybooks to put words to issues, thoughts and emotions that they are not yet able to express themselves (Pehrsson, 2006:7). Further, the storybook used here was interactive, and, according to the Macmillan online dictionary, interaction involves people communicating with each other and reacting to each other. An interactive storybook was used as a tool to create awareness of HS in middle childhood, so that HS children's perceptions during these years could be explored.

- ***Awareness***

Global awareness is giving attention to the whole of one's physical sensations and feelings, both internal and environmental, as well as one's support processes (Clarkson & Mackewn, 1993:44-45; Ginger, 2007:127-128). Awareness of the multiple forces in the field facilitates insight into the self, which in turn benefits relationships with elements of the environment, ultimately providing opportunities for growth and change (Parlett & Lee, 2005:47). Perls stated that when our awareness is fully in the present, we have the potential to deal effectively with situations as they occur rather than adhering to old habits which may not be meeting our needs (Sills *et al.*, 1995:23).

- ***Paradoxical Theory of Change***

Beisser (1970) states that 'the more one tries to be who one is not, the more one stays the same' (Yontef & Fuhr, 2005:86), and 'to be as I am before being otherwise' (Ginger, 2007:7) is the premise behind this theory. The paradox referred to in the Paradoxical Theory of Change, advocates that it is only by acceptance, and making the choice to be as one is, that the individual can change the self or the environment (Yontef & Fuhr, 2005:86; Oaklander, 2006:46).

- ***Identification versus fragmentation***

Every experience can be identified with, or disowned. When a person alienates or disowns anything, psychological conflict is created; resulting in the individual's feeling divided and fragmented. It is argued that, when people identify with their whole selves,

and they acknowledge whatever aspect arises at a moment, conditions for wholeness and growth are created (Yontef & Fuhr, 2005:83). A term related to identification versus fragmentation is projection (Clarkson & Mackewn, 1993:73-74; Sills *et al.*, 1995:62-63; Ginger, 2007:36), which is explained as a quality, feeling or behaviour which belongs to our personality, but is too difficult, offensive, or unattractive to own. Instead of owning or accepting the negative attribute, it is projected onto someone or something else, where it becomes more acceptable and open to criticism.

## **6. METHOD OF INVESTIGATION**

### **6.1 LITERATURE REVIEW**

The literature review is used to sharpen the focus of the study and to give structure to the research questions and design, thereby contributing to a clearer understanding of the nature and meaning of the problem (Fouché & Delport, 2011:134-135). University databases were searched to find research articles relating to the topic in Social Science, and Medical and Psychology research publications. The literature review was done to inform the researcher and the reader of the current state of knowledge relating to the research problem. By studying this knowledge, we learn how others have explored and solved similar problems. 'A thoughtful and informed discussion of related literature, should build a logical framework for the research, that sets it within a tradition of inquiry and a context of related studies' (Delport *et al.*, 2011:302). For the purpose of this study, a variety of texts, questionnaires and literature resources were consulted, and a pilot study was carried out to test some of the practical aspects of the study, in this case whether the participants would relate to the interactive storybook, and to make modifications to the predetermined questions in the interview schedule (Greeff, 2011:349-352), so as to make it suitable for children in middle childhood.

In Article 1, a literary and empirical study was conducted on high sensitivity, giftedness, Gestalt theory, interactive stories and middle childhood, in order to gain a comprehensive and logical framework for understanding the nature and meaning of the problem (Fouché & Delport, 2011:133-134).

### **6.2 EMPIRICAL STUDY**

#### **6.2.1 RESEARCH DESIGN**

A research design is the plan to determine what is being observed and analysed (Babbie, 2010:91), and the research paradigm refers to the way of viewing the world. When the researcher chooses the paradigm, certain assumptions are made and some systems of meaning are chosen in favour of others (Maree & van der Westhuizen, 2010:32). Also according to Maree and van der Westhuizen (2010:31) the epistemological assumptions can be viewed in two ways namely 'hard, real and objective', and then quantitative methods are considered, or a softer more subjective approach, requiring a more interpretive stance (Maree & van der Westhuizen, 2010:31-32). In this research the way of knowing reality is by exploring people's own assumptions, intentions, attitudes, beliefs and values regarding a specific phenomenon, in an attempt to see how others have constructed reality (Nieuwenhuis, 2010:55), and thus a qualitative stance was required in this research, because qualitative research attempts to penetrate the human understanding and constructions about it (Nieuwenhuis, 2010:80). These personal perceptions can be biased and subjective, but qualitative research accepts them as true for those who have lived through these experiences (Nieuwenhuis, 2010:55), and often rejecting the standard methods of natural science (Maree & van der Westhuizen, 2010:31-32). The advantage of the scientific method is that it produces precise, verifiable, systematic and theoretical answers to the research question while qualitative researchers argue that precise, verifiable, systematic and theoretical answers to complex human problems is not possible and therefore cannot provide answers that are neutral and technical (Nieuwenhuis, 2010:55).

To enhance the trustworthiness of the study, a more complex and deeper understanding of the phenomenon was needed (Maree & van der Westhuizen, 2010:41, Nieuwenhuis, 2010:81), therefore multiple research strategies were used, which included a case study (Nieuwenhuis, 2010:75; Fouché & Schurink, 2011:320), that focused on a small number of people, studying their social worlds in search of patterns (Fouché & Schurink, 2011:320), and a focus group that collected data through group interaction on the topic (Greeff, 2011:361), with the purpose of collecting in-depth qualitative data about a group's perceptions, attitudes and experiences in the topic (Nieuwenhuis, 2010:91). The different insights gained through the different perspectives reflect the unique reality and identity of the participants (Nieuwenhuis, 2010:80). When viewing the topic through multiple dimensions and angles in qualitative research, the term crystallization is used; this term explains how different methods of data gathering

allow us to see view the topic through multiple dimensions and angles (Maree & van der Westhuizen, 2010:40-41). This research was of an exploratory and descriptive nature, in order to gain rich and descriptive insight into the topic (Fouché & de Vos, 2011:95). An inductive approach was followed to discover a pattern from a set of specific observations, to develop general principles (Babbie, 2010:22). Elements of basic research were used to provide a foundation for knowledge and understanding, and an applied approach aimed at solving specific policy problems and problems in practice (Fouché & de Vos, 2011:95), in this case making recommendations to teachers, on how to support and manage the HSC.

### **6.2.2 PARTICIPANTS**

The researcher chose to explore highly sensitive children's perceptions in middle childhood and perceptions by teachers who teach middle-childhood children with HS. All potential subjects who possess attributes in which the researcher is interested are called the universe. In this research, the universe comprised all highly sensitive children in middle childhood in Gauteng, and their teachers. In an effort to understand the individuals who share characteristics of HS, a smaller sample was selected for inclusion in the study (Strydom, 2011:223). Using purposive sampling, most characteristics of the population of interest can be identified (Babbie, 2010:193; Strydom, 2011:232; Strydom & Delport, 2011:392). In this research the population was selected from an inner city school in Pretoria, South Africa, which consists of multicultural learners, and is thus part of a Westernised environment. Those selected might be struggling with the fast pace at the school. The criteria of each sample group were based on the researcher's opinion about what would be the most useful or representative (Babbie, 2010:193). The teachers assisted the researcher with the sampling process by identifying the possible participants, using a list of 23 labels suggested by Aron (2002), such as, *inter alia*, being shy, introverted, mentally ill, neurotic, fussy, different, creative, empathetic, conscientious or experiencing barriers to learning (See addendum 2). This selection method seemed best because many HSC are recognised only by their misleading labels (Aron, 2002:12). In addition, the teachers' accuracy in choosing the HSC by using the provided labels would support the claim in the literature that they were being mislabelled, misunderstood and misdiagnosed (Aron, 2002:24-27).

To ensure that the teacher's sampling was accurate, the participants' parents were also provided with an explanation of HS in the consent form, and were given the opportunity

of discussing high sensitivity telephonically. Additional criteria for the first group were that they were aged from six to eleven, and were able to speak and understand English. It was initially planned to have one child per grade, but additional participants were given consent forms because the researcher anticipated that some parents and children would not be willing to participate. Therefore all the children who agreed to participate and had parental consent became the final sample. This final sample consisted of 16 HSC, at least one boy and one girl per grade; the additional four participants were used to make sure that saturation was achieved. Saturation was reached when no new themes emerged (Nieuwenhuis, 2010:79), and when the same information started repeating itself (Greeff, 2011:350). In total, seven boys and nine girls aged between six years and one month, and eleven years and six months, who originated in South Africa, neighbouring African countries and India, were used.

The second sample group consisted of teachers who taught learners in middle childhood, and who taught the same HSC at the inner city school in Pretoria, South Africa. All the teachers who qualified were invited to participate in a focus group interview after school hours. A letter explaining the topic and what was required of them was handed out. The researcher also spoke to the teachers individually, and those who were willing and interested could participate. The participants for the focus group were selected because they shared certain characteristics which related to the topic of the focus group, so that the researcher could obtain perceptions of the defined area of interest (Greeff, 2011:360). A total of seven participants volunteered to share their experiences and views relating to the topic. As an incidental point of interest, the individuals who responded to the invitation were speakers of local African languages and Afrikaans. All seven participants were women, four Caucasians and three Africans. All the teachers had a command of English, because they were expected to teach in this language. The researcher, who is Caucasian and English-speaking, also met the sample criteria, as she was employed as an intern play therapist and inclusive educator, and her input was required in that capacity (this point will be discussed further under ethics).

### **6.2.3 INTERVIEW SCHEDULE**

In qualitative research the questionnaire written to guide the interview is referred to as an interview schedule (Greeff, 2011:352). In this research a structured interview schedule was used to explore the perceptions by the HSC. The interview schedule was

detailed, and had been developed in advance, because probing was not an aim (Nieuwenhuis, 2010:87). The researcher adapted Aron's (2002:xvii-xviii) 'parent questionnaire' because it was an existing questionnaire for parents to identify the HSC. This method was chosen because it guided the research questions, so that awareness of HS in the middle childhood could be explored, because no scale existed to effectively measure that particular dimension of the study (Delport & Roestenburg, 2011:214), namely a interview schedule for children to identify themselves. Adaption involved simplifying the language from Aron's (2002:xvii-xviii) 'parent questionnaire' to make it more child-friendly and understandable for the participants, who are not English first-language speakers. The interview schedule consisted of 23 closed questions adapted from Aron's (2002) questionnaire, with a set of responses from which the respondent had to choose (Maree & Pietersen, 2010:161) in terms of 'true' or 'false', and the option of 'not sure' was added as an alternative. Furthermore, an additional three closed questions were added to the interview schedule, namely, 'I feel different', 'I know that I will change the world with my talents', and 'I cannot do what others can do easily'. These extra questions also had 'true', 'false' and 'not sure' as a set response (Maree & Pietersen, 2010:161). Another question was added to find out if the participant identified with being HS. The first 23 questions were calculated separately from the rest, because they explored awareness of HSC, the next three questions explored the extent to which children in middle childhood are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). The final question tested the effectiveness of the book, specifically if the child identified with being HS. Pilot testing the interview schedule in its semi-final form was carried out to ensure that any errors were rectified, as well as estimating how long it would take to complete (Maree & Pietersen, 2010:159).

## **6.2.4 METHODS OF DATA COLLECTION**

The researcher made use of one-on-one structured interviewing (Nieuwenhuis, 2010:87; Greeff, 2011:298) when conducting the HSC, and the focus-group interview (Greeff, 2011:360; Nieuwenhuis, 2010:90) with the teachers, in order to understand the participants' lived world and reveal the meaning of their experiences from their point of view (Greeff, 2011:360). The one-on-one structured interview (Nieuwenhuis, 2010:87; Greeff, 2011:347) took place at the school, at a time that was convenient for the participants, and it consisted of a once-off session of about 45 minutes. The structured interview was planned in advance, materials for which consisted of an interactive



illustrated storybook and an interview schedule consisting of a set of predetermined questions (Greeff, 2011:352). During these structured interviews, closed questions (Maree & Pietersen, 2010:161; Babbie, 2011:256) were read to the participants, after which their answers were recorded. To collect data from the teachers, the researcher used the focus group interview. This method is a carefully-planned discussion (Greeff, 2011:361) (see addendum 3), which is used to guide the focus group and to collect the data through group interactions. These interviews were organised around a specific area of interest, namely the perceptions by teachers who teach HSCs in middle childhood, while still allowing for flexibility so that the teachers could talk freely (Greeff, 2011:351-352) about HS. What the participants in the focus group say during the discussions constitutes the essential data (Greeff, 2011:360-361). The multiple methods of data collection enabled the study of multiple constructed realities for more valid results (Maree & van der Westhuizen, 2011:40).

#### **6.2.5 DATA ANALYSIS**

Data from the structured interviews and the focus group were collected, and then analysed qualitatively. According to Babbie (2010:394) qualitative data analysis involves the interpretation of observations, for the purpose of discovering underlying meanings and patterns of relationships. Qualitative research can be purely descriptive but it is not uncommon for patterns to occur, which take the form of causal relations among variables. Variables are measurements or observations made on the units in the sample (Maree & Pietersen, 2010). In this research with the HSC, a variable-orientated analysis was done to describe and explain a particular variable (Babbie, 2010:395). When analyzing percentages in qualitative research, numerical descriptions are taken from bivariate and multivariate analysis (Babbie, 2010:436-441) (Bivariate analysis is the analysis of two variables simultaneously for the purpose of determining the empirical relationship between them, and multivariate is the analysis of more than two variable simultaneously and can be seen as an extension of bivariate analysis) (Babbie, 2010:436-441). Qualitative data analysis is usually based on an interpretive philosophy that is aimed at examining meaningful and symbolic content of qualitative data. It tries to establish how participants make meaning out of a specific phenomenon, by analyzing their perceptions, attitudes, understanding, knowledge, values, feelings and experiences in an attempt to approximate their construction of the phenomenon. This is best achieved through a process of inductive analysis, where the main purpose is to

allow research findings to emerge from the frequent, dominant or significant themes inherent in the raw data (Nieuwenhuis, 2010:99).

Data analysis is a flexible process that allows the researcher to analyse data during the collection process, or once all the data has been collected (Srivastava & Thomson, 2009:75). The researcher followed the process as described by Lacey and Luff (2007:13-16) and Srivastava and Thomson (2009:75-78). First, the data from the interview schedule, field notes and transcripts of video-recorded material was made familiar by thorough reviewing, reading and listening. When conducting data analysis, researchers often engage in a coding process to reduce data, develop themes and find the highlights within. In addition, the relationships between categories were explored and the themes refined until data had been organised and summarised meaningfully. The aim of the analysis was to enhance understanding of the data (Pietersen & Maree, 2010:183), by reducing the volume of raw data, and finding significant themes or patterns (Schurink, Fouché, & de Vos, 2011:397). Data was then organised and indexed for easy retrieval and identification (Srivastava & Thomson, 2009:78). The data for this study will be presented in graph or table form, namely, bar graphs and two-way frequency tables (Babbie, 2010:422-440; Pietersen & Maree, 2010:183-196). The advantage of the graphs is that one can immediately see the most prominent property of the responses to the questions. Bar graphs are frequently used to graphically summarise a qualitative variable, and a two way frequency table is used to explore different response patterns of different subgroups (Pietersen & Maree, 2010:184-185). When multiple methods are analysed, and the crystallised reality is credible, the same patterns will emerge, and this adds to trustworthiness of the research (Nieuwenhuis, 2010:81). Lastly, conclusions were drawn that could contribute towards theory and were incorporated and integrated with pre-existing knowledge (Srivastava & Thomson, 2009:78) before this research report was written.

#### **6.2.6 PROCEDURES**

1. To write and illustrate the storybook which serves to identify, reframe and manage the trait, providing the HS with the information needed for identification.
2. To compile a structured interview schedule suitable for the HSC. To find out whether children are aware of high sensitivity, and to discover the extent to which children in the middle childhood are affected by the negative labelling

often caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27).

3. To obtain consent from the school representative, the Gauteng Department of Education, and Tshwane South district to conduct research at the chosen school.
4. To conduct a pilot study with existing clients who present with HS symptoms, and would benefit from awareness of HS as part of their therapeutic process. The rationale for the pilot study was to guide the researcher towards the content of the storybook; specifically to find out whether the child in middle childhood would identify with the story, and to refine the interview schedule, making it more understandable and child-friendly.
5. To enlist the teachers' assistance in identifying possible participants, the researcher provided them with the sampling criteria [see addendum 2].
6. To hand out consent and assent forms to children who meet the sampling criteria. Only if both the parent and child agree to participate in the study, and sign the forms, would they make up the final sample of participants.
7. To have the final HSC (sample) participate in a one-on-one interview, where the storybook 'THE SENSITIVE HERO' was read to the HSC (see addendum 4). (The reading process was interactive, allowing feedback from the HSC. The session took place at school, in a once-off session lasting about 45 minutes).
8. To conduct a structured interview consisting of an interview schedule and a storybook reading, and to implement the predetermined questions (see addendum 5) immediately after the storybook has been read.
9. To invite teachers involved in teaching the children who were identified as having HS by means of a written letter inviting them to participate in the focus group interview. This would take place after school.
10. To conduct a focus group interview with the teachers to explore the perceptions by teachers who teach children with HS in middle childhood to explore how high sensitivity is displayed in the classroom, and how to support, understand and manage the HS. These interviews are organised around a specific area of interest, while still allowing for flexibility so that the teachers can talk freely

(Greeff, 2011:351-352). The focus-group interview lasted for about 90 minutes.

11. To analyse data from the HSC and the data from the teachers qualitatively. Both sets of data were analysed and coded, read and reread until themes emerge (Srivastava & Thomson, 2009:77). The framework applicable to the research method was used to make the best sense of the data.
12. To compare research findings with those in the existing literature, and correlate and integrate all the data into a discussion.
13. To focus on practical results from an applied research study in order to draw conclusions and recommendations from the research findings, and to offer suggestions to teachers on how to support, understand and manage HS in middle childhood.

## **7. ETHICAL ASPECTS**

The researcher should be competent and sufficiently skilled to undertake the research in an ethical manner (Flick, 2009:36-44; Strydom, 2011:115-125). Great care was taken to avoid deceiving or doing any harm to the participants (Flick, 2009:41), and all interviews were carried out in a tolerant, non-threatening environment (Greeff, 2011:361). Participation was voluntary for the parent and the child, and only once the parent had signed the consent forms (See Addendum 6 and 7) and the child's assent form (See Addendum 7). Assent is defined as consent for individuals who are not able to give consent, such as minors who are mentally incapable of making an informed decision. Researchers are required to obtain agreements to participate in a study even in cases where legal guardians consent to their participation since no individual should be enrolled in a study that they do not wish to be part of, retrieved online from (<http://www.Washington.edu/research/hsd/topics/Consent,+Assent+and+Waivers>). Also non-participation would not have disadvantaged them in any way (Strydom, 2011:117). Care was taken to assure participants of confidentiality and anonymity (Strydom, 2011:119-120). Other ethical aspects, such as denial of treatment, no compensation, debriefing of participants, and an explanation of HS, were pointed out in the consent forms, and explained to the parents telephonically where necessary. Arrangements were made with the schools' previous educational psychologist to counsel the participants free of charge, if any participant experienced distress from participating in the research. Since the research was undertaken at a school, consent was required

from the school representative to allow the learners and teachers to participate in this study (see addendum 8). The representative was made aware of all the ethical considerations. Permission was also obtained from the Gauteng Department of Education (see addendum 9). The Tshwane South district (see addendum 10) was also contacted for permission for the school to participate in this study, so all ethical considerations had to meet their standards. All the teachers who would be participating in the focus group were given consent forms to sign (see addendum 11), and ethical aspects were discussed prior to this.

To ensure the trustworthiness of the study, all the interviews were videotaped, and accurate field notes were made after each interview. In addition, the focus group interview was transcribed (Greeff, 2011:373). All the data was analysed and recorded in a way that did justice to the participants, and the results were handled in an ethical manner (Flick, 2009:41). Ethical procedures were followed to ensure that the research was reliable, meaning that the quality of the measurement would ensure that the same data would be collected each time in repeated of the same phenomenon. Every attempt was made to maintain the validity of the research, which is a term describing a measure that accurately reflects the concept it is intended to measure (Babbie, 2010:150-153). Procedures to ensure trustworthiness of the data analysis included verifying the raw data with the participants to ensure that the information that they shared was interpreted correctly. The stakeholders were contacted throughout the process to comment on, or assess the research findings. Also an independent coder was used to develop codes from the interview schedule, and their codes were checked and compared with the researcher's to ensure accuracy. In addition, it is generally accepted that, by engaging multiple methods of data collection, research becomes more trustworthy and more generalisable (Nieuwenhuis, 2010:113-114). A qualitative study's transferability or generalisability to other settings can be problematic, and it is seen as a weakness in this type of research (Schurink et al., 2011:420). To counter these challenges, Schurink et al. (2011:420) recommends that the theoretical parameters of the research be looked at, and those who design policy or design research within these parameters, can determine whether or not the cases can be generalised for new research policy and transferred to other settings.

## **Role of the researcher**

Another ethical aspect resulted from the double role that the researcher played, that is being employed as an intern play therapist and inclusive educator at the school. The researcher separated her role during the focus group by distancing herself from the conversation, and would only give her input when psychologically related explanations were required, also the experiences of being HS were not added to the data, but gave insight into the story book and planning of the interview schedule, the questions 1-13 were based specifically on Aron's research. However qualitative research acknowledges an interactive relationship between the researcher and participants as well as between the participants and their own experiences and how they have constructed reality based on those experiences (Nieuwenhuis, 2010:55). Refreshments were given to the children when they left the office, and after the group interview, but refreshments were not a condition of participation.

## **8. RESEARCH LIMITATIONS**

The limitations identified within this study are as follows:

- There is limited literature on HSP, and significantly less on HSC. The researcher was therefore unable to use previously-tested methodologies or data specific to the HSC.
- Some of the questions or statements in the interview schedule were confusing for children in middle childhood, for example, 'I feel more pain in my body' and 'I ask deep, thoughtful questions'. The HSC were not aware of how much pain others felt, and some had difficulty in distinguishing between 'I ask lots of questions' and 'I ask deep, thoughtful questions'. In addition, the children who took part in the study were not English mother-tongue speakers.
- Owing to the language barrier, the researcher had to rephrase some of the questions during the interview, particularly for the younger children, but they were all in sufficient command of English, as they were being educated in that language. All the participants answered from their own phenomenological perspective.
- HSC are prone to anxiety, because of their inclination to pause and check, so they were given the opportunity of asking questions about uncertainties, such as what

was expected of them, what I needed it for, and whether it was for marks, or not etc ensuring that a potentially perceived threatening situation was minimised.

- A number of variables came to the fore in this particular group who had not previously been addressed by the researcher; neither had previous research done so. Aspects such as country of origin, skin tone, environmental support, and suffering from issues with their sense of self could have affected the outcomes.
- Exploring some of the variables referred to in further studies could bring valuable new perspectives and outcomes. These studies could be undertaken by carrying out in-depth case studies. This study, which is of limited scope, did not allow for further exploration of the aspects already mentioned.
- A limitation to this study is the socio-economic status of the participants, as these children often have less parental support, but may get support from the close family, the extended family and the community.
- It would be valuable if the same type of study could be undertaken with HS children living in other socio-economic circumstances, and in different areas, so as to involve a greater variety of cultures. The nature of the population that participated in this study was largely lower income, coming as they did from the inner city and being environmentally deprived. These aspects might have had an influence on the outcome of the results. However, the participants' school is westernised, and is situated in a fast-paced environment.
- A qualitative study's transferability or generalisability to other settings can be problematic, those who design policy or design research within these parameters, can determine whether or not the cases can be generalised for new research policy and transferred to other settings (Schurink et al., 2011:420). The researcher wanted to point out that the information on HS from the focus group could be generalised to other population groups with Western standards (Strydom, 2011:223), because the teachers in the focus group referred to HS in both the school and the home environment. Where the conditions were specific to an at-risk and environmentally deprived community in the inner city, the participants talked freely and respectfully about race and culture, in a tolerant and non-threatening environment (Greeff, 2011:361). The researcher believes that the findings on the HS in an at-risk and

inner city community could also be transferred and applied to other at-risk and inner city communities.

- Future research on HSC is desired and could be valuable, as the research into the HSC is of a limited nature.
- It is recommended that larger samples for quantitative research on highly sensitive children be used, in order to gain greater insight into the phenomenon over a wider range and area, across cultures and in various environments.
- Qualitative in-depth case studies with HSC, exploring more variables, are also
- No available scale existed for children to identify themselves; therefore the study was limited to a qualitative design approach.
- Advise designing a standardised structured questionnaire for the HSC to identify themselves.
- Advise future research for parents and professional on how to support the HSC.

## **9. REPORT LAYOUT**

### **Section A: Orientation to the research**

The first section serves as a general introduction to the study. The problem statement, central scientific paradigm, research methodology and a description of concepts, inter alia, are set out in this section.

### **Section B: Journal Article**

This section is comprised of one article. The title of the article is as follows:

**Article 1:** The use of interactive stories to deal with awareness of high sensitivity in middle childhood

#### **Journal for submission.**

*Journal of Applied Developmental Psychology* (see addendum 1)

### **Section C**



This section of the study comprises the summative research findings, conclusions and recommendations. The research results obtained from the HSC, which was facilitated by the interactive storybook, and data from the teachers, led to suggestions to help them gain a better understanding of the HSC, in the hope that negative labelling can be reduced. It is hoped that teachers can learn how to understand, support and manage the HSC with their difficulties, so that they can reach their full potential.

## **Section D**

All the addenda used in this study are included in this section.

## **Section E**

The final section comprises a consolidated list of references used throughout this study.

## **10. ACRONYMS**

- **HS:** highly sensitive
- **HSC:** highly sensitive child
- **HSP:** highly sensitive person (Adult)

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## SECTION B: ARTICLES

ARTICLE 1	
<b>Title:</b>	The use of interactive stories to deal with awareness of high sensitivity in middle childhood
<b>Aim:</b>	The aim of this study is to explore perceptions by HS children in middle childhood using an interactive storybook, which was specifically written and illustrated for this research, to find out how aware children in middle childhood are of HS, and the extent to which they are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted. The perceptions by teachers who teach children in the middle childhood were explored to describe how HS is displayed. The final aim was to draw conclusions and make recommendations to teachers who work with the HSC, to help understand, support and manage them, so that they can reach their full potential, because many are gifted. In addition the interactive storybook may also become a tool for this purpose.
<b>Journal:</b>	Journal of Applied Developmental Psychology

### Letter of Permission

Permission is hereby granted by the co-author that the article included in this manuscript may be submitted by Lisa- Mandi Durbach for the purpose of obtaining a Masters in Psychology. The co-author, Dr. S Jacobs acted as promoter.



**Dr. S. Jacobs**



## **ARTICLE 1: THE USE OF INTERACTIVE STORIES TO DEAL WITH AWARENESS OF HIGH SENSITIVITY IN MIDDLE CHILDHOOD**

**L.M. Durbach**

**S. Jacobs**

### **ABSTRACT**

This study explored awareness of high sensitivity (HS) in middle childhood, through the use of an interactive and illustrated storybook. The study consisted of one-on-one interviews with HS in the middle childhood, to explore their perceptions on HS. To create explicit awareness of HS, a storybook about a highly sensitive child was read, and afterwards an interview schedule was implemented to explore awareness of HS, and the extent to which the HS are affected by negative labelling. After which a focus group interview with the teachers was held, in order to gain richer data. The final aim was to draw conclusions and make recommendations to teachers who work with the HSC, to help them to reach their full potential, as many children who present with HS are actually gifted. The results revealed that the HSC are aware of HS, and many do feel 'different' and 'flawed'.

**KEY WORDS:** *High sensitivity, Middle childhood, Gestalt therapy, interactive story, paradoxical theory of change, giftedness*

# **The use of interactive stories to deal with awareness of high sensitivity in middle childhood**

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## **Research highlights**

- Children in middle childhood are aware of HS.
- Teachers find their behaviour 'different' and 'flawed'.
- The HS struggle socially, emotionally, educationally and physically.
- The HS need to be identified, supported and managed, in order to reach their potential.
- The HS can be very successful when their self-esteem is high.

## Introduction

The term 'high sensitivity' (HS) was introduced in 1996 by Elaine Aron, reference to highly sensitive persons (HSP) and in 2002 to highly sensitive children (HSC) (Evers, Rasche & Schabracq, 2008). For the purpose of this article, the abbreviations HS, HSP and HSC will be used hereafter. According to Aron, 15% to 20% of humans have a nervous system that is more sensitive to subtle sensory input, whereby basic information is processed and analysed more thoroughly, thereby causing quicker overstimulation and over-arousal (Aron & Aron, 1997; Aron, 1999; 2002; 2004; 2006).

Despite all the other research into sensitivity (Dabrowski in Fornia & Frame, 2001; Hartmann in Jawer, 2005; Jawer, 2005; Osche, 1993; Piechowski, 1996) the researcher found Aron's pioneering work (Aron, 1999) different because it offered an explanation of how sensitivity worked. Limited literature on HSP exists, and there is significantly less on HSC. Aron's research will therefore be used as a basis for this article. The researcher worked from a Gestalt philosophical framework which says that the right to be different and unique is valued (Ginger, 2007). Violet Oaklander (2006) added that the Gestalt approach is not centred on changing behaviour, but on allowing children to become aware of their own processes, and then to understand and be themselves. In Gestalt therapy there are many ways of creating awareness (Oaklander, 2006), for example, the use of storybooks which allow for awareness to be created (Oaklander, 2006; Pehrsson, 2006). Books can aid the process of self-discovery, and improve self-efficacy, communication skills and emotional growth (Pehrsson, 2006). This is because children can identify the characters, and work through problems with them, ultimately achieving insight into their own situation (Oaklander, 1978; Oaklander, 2006; Shrodes (1950) in Pehrsson, 2006). In addition, children of all ages (Oaklander, 2006) can use the story as a metaphor that represents their knowledge, feelings, concerns and fears, and are enabled to put words to issues, thoughts and emotions when they are not yet able to do this on their own (Pehrsson, 2006). Statements of the self and owning projections allow for awareness of the self and their place in the world. Through this awareness, the self is strengthened, allowing change to take place (Oaklander, 2006). This will be discussed further under Gestalt perspective. Taking these facts into consideration, the researcher created an illustrated storybook as a mechanism to provide explicit awareness of HS for children in middle childhood. The overall aim was to gain a deeper understanding of HSC through the exploration of a storybook, specifically an interactive one, defined by the Macmillan online dictionary as involving

people communicating with each other and reacting to each other, to become aware of the difficulties that HS children encounter. If a better way of support could be found, the HS could reach their full potential, because many of them are gifted (Aron, 2002; Goldberg, 2005a).

In 1997 Aron compiled a standardised questionnaire to identify the HSP (Aron & Aron, 1997), which was adapted in 2002 so that parents could identify the HSC (Aron, 2002). Smolewska, McCabe and Woody (2005) examined the psychometric properties of the highly sensitive person scale and revealed its validity and reliability in terms of its construct of sensory processing sensitivity, and added that the psychometric properties of HS are aesthetic sensitivity, a low sensory threshold, and ease of excitation (Smolewska et al., 2005). Despite the commonalities among the HS, there are variations (Aron, 2002) caused by several vulnerability genes which are activated only if sensitivity is going to be an asset in that environment (Aron, A., Ketay, Hedden, Aron, E., Markus & Gabrielli, 2010; Belsky & Pluess, 2009).

According to Aron (2006), the HS are noticeable by being more aware of their environment, and are more easily overwhelmed by highly stimulating or unfamiliar situations, such as crowds, noise, rough textures, strange odours, and visual clutter. The author continues that the HS are more sensitive than others to caffeine, pain, hunger and medication, and often suffer from allergies. Most startle easily and therefore avoid unnecessary risks, sudden life changes, exposure to violent media, and deadlines. In addition they do not enjoy stressful or high pressured situations like competitions because they are sensitive to criticism, and tend to perform worse when observed, as well as being afraid of making errors.

However, there are symptoms of HS that can be confused with innate shyness, introversion, inhibition, fearfulness, negativity, timidity and a low sensory threshold. Aron's research explains the misconception and offers a better understanding of HS (Aron & Aron, 1997; Aron, 2002). Aron (2002) and Aron, Aron and Davies (2005) found that an interaction between sensitivity and an adverse childhood environment could lead to negative affectivity, and in turn to shyness. The major findings were that if a child experienced a good childhood they may not become shy. It was also found that their tendency to protect themselves from overstimulation is understandably misconstrued as shyness. HS seemed to be the same as introversion, because both the HS and the

introvert prefer being with one or two friends. It is also the introvert's style to reflect on events. Aron's findings, however, conclude that not all introverts are highly sensitive, as 30% of highly sensitive people are extravert (Aron, 2002). Other symptoms that are confused with HS are inhibition, fearfulness and timidity. Many HSPs display these characteristics because they tend to reflect before they act, and they process all information thoroughly, thus taking longer to understand situations. Further, they do, in fact, notice greater danger (Aron, 2002). This point will be discussed further under positive characteristics that form part of the HS.

Another important aspect to be mentioned is that many HS are perceived as being negative. This is because the HS have the ability to process emotions in a deeper way, which might in return lead to stronger feelings of misery, and greater distress caused by unfairness, conflict or suffering. This could create a greater susceptibility to mental health issues. A symptom of HS that may also lead to confusion is the fact that many HS have a low sensory threshold, as the five senses are often the source of their discomfort (Aron, 2002). According to Jagiellowicz, Xu, Aron, A., Aron, E., Cao, Feng and Weng (2010), their research article provides the first direct support for the sensory aspect of HS.

### **Signs of sensory overstimulation**

From the previous discussion, it can be noted that the HSC are bothered by discomforts, changes or oddities, because they notice more sensory subtleties. In fact, many of the HSC's difficulties arise from the feeling that their senses are over-aroused (Aron, 2002, Aron et al., 2005; Benham, 2006; Goldberg, 2005b; Jagiellowicz et al., 2010). When overwhelmed, HSCs exhibit reactions and solutions to sensory overstimulation (Aron, 2002; Goldberg, 2005b; Lombard, 2007) like becoming easily upset, over-complaining, socially withdrawing, introversion, shyness, avoidance, fussiness, over-activity, tantrums, rages, perfectionism, compliance, over-achievement, perfect obedience and resignation, submission (Aron, 2002; Goldberg, 2005b) and physical reactivity (Aron, 2002; Benham, 2006; Goldberg, 2005b; Hartman in Jawer, 2005). As research undertaken in the field of occupational therapy indicates, signs of over-stimulation are often confusing because a nervous system that is over sensitive to sensation puts the brain into high alert and keeps going into a fight or flight response, which coincides with a stress response (Lombard, 2007; Parham & Mailloux, 2005). Lombard (2007) categorises the signs of sensory over-stimulation and over-arousal into

the three stress response categories: flight, fright and fight. Listed under flight are distractibility, boredom, escape behaviour, redirecting, and the removal of oneself from a particular situation. The fright or fear responses present as whining, crying, clinging and fearfulness, a reluctance to try new things, activities or places, withdrawal, hiding or saying, 'I can't'. The responses that occur in 'flight' mode include frustration, outbursts, aggression, resistance, acting out, saying, 'I won't, NO'. The researcher believes that Lombard's (2007) signs of sensory over-stimulation coincide with the HSC's presenting symptoms, already discussed under signs of sensory over-stimulation, and are also referred to under childhood coping strategies. It is important to note that the behaviour mentioned could lead to negative labelling by teachers.

According to Aron (2002), Dunn (2001) and Lombard (2007), everyone can be seeking in one sensory modality or being avoidant in another. However, everyone strives for sensory balance. This can be explained in the following way: when an individual is under-aroused, a feeling of dullness prevails, and will result in an action that increases arousal. The opposite, over-arousal, works in the same way, and the person will apply strategies to break contact with the environment (Aron 2002; Aron et al., 2005; Dunn, 2001; Jagiellowicz et al., 2010; Lombard, 2007). To break contact is to restrict the senses and the body, instead of being fully present in a particular situation. Good contact also involves the ability to withdraw appropriately (Oaklander, 2006). This idea is explained further under childhood coping strategies.

Gestalt theory offers the explanation that all organisms self-regulate, and strive towards balance (Reynolds & Mortola, 2005; Sills, Fish & Lapworth, 1995), but, according to Perls (in Clarkson & Mackewn, 1993), there is an equally intrinsic urge to disturb its own balance, and act towards growth. Gestalt theory is more focused on desensitisation (Blom, 2006; Clarkson & Mackewn, 1993; Sills et al., 1995), which means avoiding contact, such as by numbing the natural ability to sense the world mostly as a survival strategy. Sills et al (1995) and Perls (+\_1948) make an equally important point, which is that when the organism is over-stimulated with sensation, and becomes overwhelmed, individuals have difficulty in selecting relevant data (Sills et al., 1995). According to Perls (+\_1948), oversensitivity can act as a means of avoiding a situation. Examples are suffering migraines and sensitivity to light. The researcher equates the Gestalt therapy term of desensitisation with Lombard's (2007) description of shutdown, since at this point the body's systems close down, and the person becomes depersonalised and dissociated from the environment and the situation (Lombard, 2007).

The researcher also refers to Ivan Pavlov's (1941) use of trans-marginal inhibition, which states that, when the research subject is excessively intense, certain stimuli, which would otherwise have evoked a response, do not register. Sargant's (1951; 1957) understanding of trans-marginal inhibition is that it is a human reactive collapse resulting from intense mental tension or excitement. This inhibition was held to be protective in nature (Oswald, 1960). Ivan Pavlov believed that the most basic inherent difference among people is how soon they reach this shutdown point (Aron, 1999). Further research into sensory over-arousal has found that sensory avoiders struggle the most (Aron, 2002; Dunn, 2001; Lombard, 2007; Smolewska et al., 2005). Smolewska et al., (2005) found that a low sensory threshold and ease of excitation are most closely associated with neurosis.

### **Perspectives flowing from the environment**

The researcher believes that Westernised materially-based cultures (Goldberg, 2005), which are fast-paced, and over-stimulating (Aron, 2002; Lombard, 2007; Zeff, 2007), exacerbate the difficulties that the HS already experience. Those HS who fall under the influence of society with a Western attitude are not valued (Aron & Aron, 1997; Aron, 2002; Zeff, 2007). The cultural context makes a difference to whether children receive support or disapproval, and whether they adjust well or badly (Berk, 2009). Aron (1999) refers to studies on shyness and sensitivity by Chen, Rubin, & Li, (1995) and Chen et al., (1998) to make the point that cultures in countries such as Japan, Sweden and China valued sensitivity (Aron, 1999), but later studies by, Wang and De Souza (2006) and Yu (2002) showed how the attitude towards shy and withdrawn Chinese youngsters had changed (Aron, 1999; Berk, 2009), due to what is believed to be a rapid expansion of the market economy (Berk, 2009). Despite this change in attitude, a study by Aron, A et al., (2010) showed that the Chinese remain less influenced by their cultural context than the North American participants. This attitude can also be noted in gender issues, where the cultural expectations that girls will be warm and expressive, and boys will be distant and self-controlled, seem largely responsible for the gender gap in emotional sensitivity (Berk, 2009). Consequently, sensitive older boys and men in our society often feel they have to hide their sensitivity (Aron, 2002). The researcher points to Bloise and Johnson's (2007) research, in which there is further possibility, that women are generally able to remember and recall more emotional memory than men, which makes them appear to be more emotionally sensitive. However, Aron's research into high sensitivity found that the ratio of sensitive men to sensitive women is 50/50 (Aron,

2002). A study by Bloise and Johnson (2007) showed that emotionally sensitive men showed more emotional recall than non-sensitive women. Despite emotional sensitivity shown in men, cultures have strong ideas on how men and women ought to behave (Aron, 1999).

Messages, or introjects, which everyone receives, are transferred from the culture by parents, schools, friends, neighbours and ministers. The messages are most prominently accepted in the early years of childhood, when the child is more vulnerable and impressionable (Oaklander, 2006; Sills et al., 1995), often resulting in children blindly following should and oughts (Ginger, 2007; Reynolds & Mortola, 2005; Sills et al., 1995). Gestalt theory uses the term 'introjections' to explain this concept (Ginger, 2007; Reynolds & Mortola, 2005; Sills et al., 1995). 'The danger is that self-knowledge, self-acceptance and growth are limited by introjected messages (Yontef & Fuhr, 2005:86). According to Gestalt therapy, self-acceptance and self-awareness are essential, as Perls (1976) maintains (in Clarkson & Mackewn, 1993:38) that 'man transcends himself only via his true nature'. This point will be discussed further under Gestalt perspective.

### **Childhood coping strategies**

When the HS are not appreciated by the society in which they live, they experience a feeling of being 'different' (Aron, 2002:141; Goldberg, 2005b:1) and 'flawed' (Aron, 2002:4). Further, according to Erikson's psychosocial stage of industry versus inferiority, the seven to eleven year-old child's task is to struggle with the conflict of achievement resulting from mastering activities and the feeling of inadequacy when industry is not mastered (Weiten, 2001). Children in this age group may develop erroneous beliefs about themselves as they grow into adulthood, and the negative messages impair and fragment every part of their lives (Oaklander, 2006). Oaklander (2006:142) adds that in order for 'the child to cope and survive, these children will restrict, inhibit, block, and often totally shut down aspects of the self', and the child's lack of awareness and inability to choose alternative responses at different points of the cycle may result in him displaying various symptoms (Reynolds & Mortola, 2005), as already mentioned under signs of over-stimulation. When this type of behaviour is misunderstood, misdiagnosed and misinterpreted they are negatively labelled (Aron, 2002:24-27), the consequence of being labelled in this way is the development of low self-esteem and a feeling of shame (Aron, 2002; Oaklander, 2006). This is a predicament, since negative labelling may



prevent the HSCs from discovering and using their talents because many are gifted (Aron, 2002). Emotional sensitivity is often very noticeable in gifted children (Dabrowski in Fornia & Frame, 2001; Fornia & Frame, 2001; Osche, 1994; Piechowski, 1996). In addition, gifted children have their own difficulty, in that they are more aware of what is possible, and low self-esteem may lead them to feel defeated and subsequently avoid a task, because they do not feel capable of living up to their gifted label (Fornia & Frame, 2001).

### **Positive characteristics of the HS**

Besides possible giftedness, there are many positive aspects of the HSC, who can be creative, conscientious, intuitive (Aron, 1999; 2002; Goldberg, 2005b; Zeff, 2007), empathetic (Aron, 2002; Goldberg, 2005b) and reflective (Aron, 2002; Goldberg, 2005b; Zeff, 2007) and they can have a rich inner life (Frankl, 1964; Goldberg, 2005b). Children presenting with HS may have an advantage over children who do not, because, with good parenting, sensitive or emotionally-reactive children are healthier (Ellis, Essex & Boyce (2005), in Jagiellowicz et al., 2010) and they are better able to read positive social cues and gestures (Boyce, Chesney, Alkon, Tshann, Adams, Chesterman, Cohen, Kaiser, Folkman & Wara, 1995). In addition, according to Victor Frankl in *Man's Search for Meaning*, his account of life in the death camps, '[s]ensitive people were able to retreat from their terrible surroundings to a life of inner riches and spiritual freedom... [and] often seemed to survive camp life better than those of a more robust nature' (Frankl, 1964:35). The researcher suggests Dabrowski's theory of positive disintegration to explain Frankl's statement; because the gifted individual's ability to recover from a crisis can result in a higher level of functioning rather than returning to previous normal functioning (in Fornia & Frame, 2001). These abilities are often seen amongst eminent creators when adverse conditions disrupt the normal socialisation processes that children typically experience (Albert, 1994 in Olszewski-Kublius, 2000), causing their own isolation, and they would rather work in their own interest (Dabrowski in Jawer, 2005; Hartmann in Jawer, 2005; Ochse, 1994; Olszewski-Kublius, 2000). This could have positive implications for at-risk and inner city communities, defined in Webster's New World Law Dictionary (2010) as youth who are subject to unique jeopardy or threat with an increased likelihood of delinquency due to home and environmental factors. This research was undertaken in a similar community. The researcher proposes that this could be part of an evolutionary survival strategy in at-risk and inner city environments. It supports the biological view that most species have evolved personality

types, for example, shy and aggressive or non-aggressive, sensitive or not sensitive (Jagiellowicz et al., 2010; Wilson, Coleman, Clark, & Biederman, 1993), which affects how they act in the face of novel stimulation. This may be either exploration, or a quiet vigilance, which could lead to retreat. This is the end product of natural selection (Aron & Aron, 1997; Aron, 1999; 2002; 2004; 2006; Wilson et al, 1993). According to Albert (1994) in Olszewski-Kublius, and Osche (1994), those who are low in social or economic status might capitalise on early talents, such as sports or entertainment, because traditional routes to success and achievement, including formal education, may not be possible.

According to Aron, the HS belong to the 'priest-judge-advisor class', and their motivation to avoid unnecessary risks helps the bold, aggressive, warrior class to survive, because they have the foresight to look out for the planet and the powerless. These individuals are often found to have become, inter alia, counsellors, teachers, scholars, writers, historians, philosophers, judges, artists, researchers or theologians (Aron, 2002). It could be said that the HSC become visionaries and pioneers in their chosen fields (Aron, 1999). Research into childhood personality traits of the eminent creative, the genius, scientists, political figures and humanitarians mirror the traits of the HSC, for example their emotional sensitivity, exhibitionism to compensate for not liking shyness, concentration and absent-mindedness, curiosity, confidence, the habit of working alone, and difficulty in initiating or maintaining intimate relationships (Ochse, 1994).

Additionally, research into the childhood traits of early presidents and political leaders found that they were neurotic, lonely, shy, reserved, hypersensitive, quiet, nervous, peculiar, moody, bad-tempered, silent, aloof, cold and arrogant, and enjoyed a solitary existence (Berrington, 1983). Traits of the creative genius and political leaders showed that both groups struggled academically, and many of the gifted suffered from mental health issues (Fornia & Frame, 2001). Dabrowski (in Fornia & Frame, 2001) studied intellectually and artistically gifted children, and found that intensity and emotional extremes were part of their psychological makeup. It was found that they lived more intensely. The researcher believes that it is this intensity in the HS that contributes to their difficulties.

## **Mental health**

In 1913 Carl Jung proposed that children who were experiencing an adverse childhood and had been born with an 'innate sensitiveness' were prone to being more anxious and

depressed than the not-so-sensitive child (Aron, 2004; Aron, 2006). Further research into 'sensory processing sensitivity' (Ahadi & Basharpour, 2010; Aron, A. et al., 2010; Aron & Aron, 1997; Aron, 2004; Aron, 2006; Belsky & Pluess, 2009; Hofmann & Bitran, 2007; Jagiellowicz et al., 2010; Liss, Timmel, Baxley & Killingsworth, 2005; Liss, Mailloux & Erchull, 2008) and 'temperamental sensitivity' (Aron et al., 2005) support Jung's view that persons who present with HS are more prone to mental health issues than are the non-sensitive. According to Aron's statistics 50% of clients in need of therapy are HS (Aron, 2006). However, Aron points out that, if the HSC experienced a childhood during which they are free to express their sensitivity and feelings (Aron, 1999), they would not present with symptoms of depression, anxiety (Aron, 1999; 2002; 2006; Hartmann in Jawer, 2005; Jagiellowicz et al., 2010; Liss et al., 2005) neurosis (Aron, 1999; Jagiellowicz et al., 2010) and shyness (Aron, 2002; Aron et al., 2005; Heller in Jawer, 2005; Jagiellowicz et al., 2010). In addition, when there are strong supportive elements in place, such as extended family and siblings, the impact of a tragedy may be disturbing, but not devastating, and in the case of eminent creators, highly motivating (Olszewski-Kublius, 2000).

Related research by Jerome Kagan on inhibited children found that 20% of babies are 'highly reactive' when exposed to new stimuli (Aron, 1997; Kagan in Berk, 2009). Megan Gunnar's study on the long-term effects of cortisol arousal in inhibited babies reported that only the highly sensitive babies with inattentive babysitters showed more cortisol in their saliva (Aron, 1997). Additional research by Kagan and Fox (in Berk, 2009) stated that, in shy, inhibited children, novel stimuli excite the amygdala, which prepares the body to act in the face of threat. However, in sociable, uninhibited children, the same level of stimulation evokes minimal neural excitation (Kagan & Fox in Berk, 2009). Dabrowski (in Fornia & Frame, 2001) researched 'overexcitabilities' or intensities found in the gifted, which include the following categories: psychomotor, sensual, imaginational, intellectual and emotional. While each of the 'overexcitabilities' are relevant to the HS, the emotional 'overexcitabilities' was prominent, as the manifestations include inhibition (timidity or shyness), fears, anxieties and depression, and concern for others. Additional research into sensitivity by Hartmann (in Jawer, 2005) discusses 'thin boundary persons' who have a less solid sense of their skin as a body boundary to describe the sensitive, possessing an enlarged sense of merging with another when kissing or making love, are sensitive to physical and emotional pain in themselves and others, and are open to new experiences, as well as getting sick more

easily. They also tend to immerse themselves in daydreaming or personal relationships. In the researcher's opinion, intellectual pursuits such as those cited by Osche (1994) and Dabrowski (in Fornia & Frame, 2001), where an intellectual 'overexcitabilities' results in the gifted enjoying intense focus on a particular topic, should be included in this point.

### **Gestalt perspective**

According to Gestalt theory, self-acceptance and self-awareness are essential for growth and change. This means that one accepts and owns the reality of the conditions and the choices made (Yontef & Fuhr, 2005). The researcher believes that the Gestalt concepts of awareness (Clarkson & Mackewn, 1993; Ginger, 2007; Parlett & Lee, 2005; Sills et al., 1995), the Paradoxical Theory of Change (Ginger, 2007; Oaklander, 2006; Yontef & Fuhr, 2005) and identification versus fragmentation (Clarkson & Mackewn, 1993; Ginger, 2007; Sills et al., 1995; Yontef & Fuhr, 2005) are central to this goal, and will be explained briefly.

The main concept of Gestalt is awareness, which is giving attention to the entirety of one's physical sensations and feelings, both internal and environmental, as well as the support processes (Clarkson & Mackewn, 1993; Ginger, 2007). Awareness of the multiple forces in the field facilitates insight into the self, which in turn benefits relationships with elements of the environment, ultimately providing opportunities for growth and change (Parlett & Lee, 2005). Perls stated that, when our awareness is fully in the present, we have the potential to deal effectively with situations as they occur rather than reacting according to old habits which may not be meeting our needs. However, what differentiates a healthy from an unhealthy action is usually the element of awareness and choice involved (Sills et al., 1995). When someone's behaviour is not effective, focal awareness is needed to change that behaviour so that that the individual's needs are better met (Yontef & Fuhr, 2005).

In the second instance, Beisser (1970) quoted in Yontef and Fuhr (2005:86) states that 'the more one tries to be who one is not, the more one stays the same' or, as (Oaklander, 2006:46) puts it, change takes place when one becomes what he is, not when he tries to become what he is not. This is the paradox referred to in the Paradoxical Theory of Change, which advocates that it is only by acceptance, and making the choice to be as one is, can the individual change the self or the environment

(Ginger, 2007; Oaklander, 2006; Yontef & Fuhr, 2005). This means that individual's base change attempts on self rejection, disowning of self, and self-hate (Yontef & Fuhr, 2005).

The third concept of identification versus fragmentation states that every experience can be identified with, or disowned. When a person alienates or disowns any aspect, psychological conflict is created, and the individual feels divided and fragmented (Yontef & Fuhr, 2005). According to Oaklander (2006), the goals of Gestalt therapy with children should be for them to gain self-support, self-acceptance, self-nurturance and integration. One should see growth occurring as children learn to accept aspects of the self without judgment. When children feel that they are allowed to live as they want to, growth and change will take place naturally in ways that are supportive to the whole person (Clarkson & Mackewn, 1993). The researcher suggests that a better sense of self will improve the HSC's self-esteem.

### **Research goals**

It can be said that the goal of the research was to encourage self-awareness by the HSC, as a result of using an illustrated and interactive storybook as a tool for this purpose. A further goal was to explore the perceptions by HS children in middle childhood, in order to find out how aware they are of HS and the extent to which children in middle childhood are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). The teacher's perceptions were also needed to add insight into how HSC is displayed in the middle childhood, to provide guidance and advice for teachers on how to understand, support and manage HS in middle childhood, so that they can reach their full potential. The final goal was to create a storybook which could in the future become a commercially available tool to support the HSC.

Four different premises were investigated. The first was to consider one of the primary goal of the study, which was to explore the perceptions by HS children in middle childhood in order to discover how aware they are of HS. The assumption was that children in middle childhood would be aware of HS, because, according to Aron (2002:141), 'the child will notice sooner or later that they are 'different'. However, the researcher wanted to discover the extent of their awareness. Additional themes such as age and gender were investigated to find out whether these would affect awareness of

HS, the assumption being that foundation-phase learners (aged six to nine) would be less aware of HS, because they are generally less self-aware. According to research on gender and HS (Aron, 2002; Bloise & Johnson, 2007), females would be more aware than males.

The second premise explored the extent to which children in middle childhood are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). The assumption being that most children presenting with HS would feel that there was something 'wrong' with them (Aron, 2002:11; Zeff, 2007:11), as they experience a feeling of being 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4). The researcher focused on the different aspects of 'different' (Aron, 2002:141; Goldberg, 2005b:1) and 'flawed' (Aron, 2002:4).

The third premise focused on whether HS children in middle childhood were aware of their talents. The researcher proposed that they knew their talents would change the world because, according to Osche (1994), creative achievers know from an early age what career they will follow, and engage in related activities to prepare themselves.

The fourth premise looked at whether the illustrated storybook could be used to create self awareness of HS in middle childhood, so that the HSC will be able to identify with being HS. The proposal is that the book could become a tool for teachers to help them support and manage the HSC, because when people can identify with someone in the book, and work through the problem with them, ultimately achieving insight into their own situation (Oaklander, 1978, 2006; Shrodes (1950) in Pehrsson, 2006).

## **Methods**

### **Participants and procedure**

The research design is the plan to determine what is being observed and analysed (Babbie, 2010) and the research paradigm refers to the way of viewing the world (Maree & van der Westhuizen, 2010). In this research the way of knowing reality is by exploring people's own assumptions, intentions, attitudes, beliefs and value regarding a specific phenomenon, in an attempt to see how others have constructed reality, and thus a qualitative stance was required in this research. These personal perceptions can be biased and subjective, but qualitative research accepts them as true for those who have lived through these experiences (Nieuwenhuis, 2010). A common objective in research

is exploration, which is done to gain insight into a situation, individual, phenomenon or community. The need for an explorative study may arise from lack of information on a new area of interest (Fouché & Delport, 2011), as in the case of this study. Secondly a descriptive study aims to create a picture of the details of a situation, social setting or relationship (Babbie, 2010; Fouché & Delport, 2011). The research strategy was a case study (Fouché & Schurink, 2011; Nieuwenhuis, 2010), which focused on a small number of people, studying their social worlds, in search of patterns (Fouché & Schurink, 2011), and a focus group that collected data through group interaction on the topic (Greeff, 2011), with the purpose of collecting in-depth qualitative data about a group's perceptions, attitudes and experiences in the topic. The different insights gained through the different perspectives reflect the unique reality and identity of the participants (Nieuwenhuis, 2010). When viewing the topic through multiple dimensions and angles in qualitative research the term crystallization is used (Maree & van der Westhuizen, 2010), this method provides a more complex and deeper understanding of the phenomenon, and it enhances trustworthiness of the study (Maree & van der Westhuizen, 2010; Nieuwenhuis, 2010). An inductive approach was followed to discover a pattern from a set of specific observations, to develop general principles (Babbie, 2010). Elements of basic research were used to provide a foundation for knowledge and understanding, and an applied approach aimed at solving specific policy problems and problems in practice (Fouché & de Vos, 2011). In this case making recommendations to teachers on how to support and manage the HSC.

When perceptions by highly sensitive children in the middle childhood and teachers who teach children in the middle childhood are explored, all potential subjects who possess attributes to which the researchers is interested in, is called the universe (Strydom, 2011) and in this research it was all highly sensitive children in the middle childhood in Gauteng and their teachers. In an effort to understand the individuals that share characteristics of HS, a smaller sample who will actually be included in the study were selected (Strydom, 2011) using purposive sampling, because it identifies most characteristics of the population of interest (Strydom & Delport, 2011). The term population refers to individuals in the universe who possess specific characteristics and it is a term that sets boundaries on the study unit (Strydom, 2011). In this research the population was an inner city school, in Pretoria, South Africa, which consists of a multicultural learners, and thus part of a Westernised environment, who as seen in the previous section, struggle with the fast pace at the school. The criteria of each sample

group were based on the researcher's judgement about what will be the most useful or representative (Babbie, 2010). The teachers assisted the researcher with the sampling process, by identifying the possible participants using a list of 23 labels that were suggested by Aron (2002), such as inter alia, being shy, introverted, mentally ill, neurotic, fussy, different, creative, empathetic, conscientious, barriers to learning etc. This selection method seemed best because many HSC are only recognised by their misleading labels (Aron, 2002). In addition, the teacher's accuracy in choosing the HSC, by using the provided labels, would support the literature's claim that they are being mislabelled, misunderstood and misdiagnosed (Aron, 2002).

To ensure that the teacher's sampling was accurate, the parents of the participants were also provided with a definition of HS in the consent and assent forms, and were given the opportunity to discuss high sensitivity telephonically. The point on consent and assent will be discussed in detail under ethical aspects. Additional criteria for the first group, was that they be aged six to eleven, and able to speak and understand English. It was initially planned to have two children per grade, but extra participants were given consent and assent forms, because the researcher anticipated that some parents and children would not be willing to participate. Therefore all children who agreed to participate, and had parental consent became the final sample. This final sample consisted of 16 HSC, at least one boy and one girl per grade (grade one to grade six), the additional four participants were used to make sure that saturation was achieved. Saturation was reached when no new themes emerged (Nieuwenhuis, 2010), and when the same information started repeating itself (Greeff, 2011). In total seven boys, and nine girls aged between six years and one month, and eleven years and six months, who originated from South Africa, neighbouring African countries, and India were used. The second sample group consisted of teachers who taught learners in the middle childhood, who taught the same HSC at the inner city school, in Pretoria, South Africa. All teachers who qualified were invited to participate in a focus group interview after school hours, letters explaining the topic, and what would be required of them were handed out, the researcher also spoke to them individually. Those who were willing and interested could participate, and upon agreement of participation, were informed of the aims and procedures of the study and informed of all ethical aspects (Strydom, 2011) (to be discussed further on). The participants for the focus group were selected because they share certain characteristics, and they were able to relate to the topic of the focus group, so that the researcher could obtain perceptions of the defined area of interest



(Greeff, 2011). A total of seven participants, volunteered to share their experiences and views relevant to the topic. Incidentally, the individuals who responded to the invitation were of local African languages and Afrikaans speaking orientation. All seven participants were women, four Caucasians and three Africans, and all the teachers were in command of English, because they are expected to teach in this language. The researcher, who is Caucasian and English speaking, also met the sample criteria, since she was employed as an intern play therapist and inclusive educator, and her input was required in that capacity (to be discussed further on).

## **Interviews**

The researcher made use of one-on-one structured interviewing (Maree & Pietersen, 2010; Babbie, 2011) with the HSC, and the focus group interview (Greeff, 2011; Nieuwenhuis, 2010) with the teachers, to understand these participants' lived world and reveal the meaning of their experiences from their point of view (Greeff, 2011). The one-on-one structured interview (Babbie, 2011; Greeff, 2011; Maree & Pietersen, 2010) with the HSC took place at the school, at a time that was convenient for the participants, and it consisted of a once off session of +\_45 minutes. The schedule was compiled in advance. The advantage of this type of interview is that it helps to keep the procedure consistent (Nieuwenhuis, 2010). The session consisted of an interactive illustrated storybook and an interview schedule with a set of predetermined questions (in qualitative research the questionnaire written to guide the interview is referred to as an interview schedule (Greeff, 2011:352)). The researcher read during the session, while the participants listened, and followed the words and pictures from the open book in front of them. The researcher would stop to explain important points and pictures in the story, and asked their opinion of the story and the characters. In addition the participants were free to discuss themselves, or the story. The researcher attempted to follow each child's interest, and in one case used the book as a starting point for a conversation, and returned to the key pages such as strengths and weaknesses and managing HS. Immediately after reading the storybook, the researcher read the questions to the participants, after which their answers were recorded. Both the storybook and the interview schedule will be discussed in more detail under the upcoming headings. To collect data from the teachers, the researcher used focus group methodology. This method is a carefully planned discussion (Greeff, 2011), with a structured set of questions (Nieuwenhuis, 2010). The researcher created a tolerant environment where a small group shared perceptions, points of view and experiences

without pressure. These interviews are organized around a specific area of interest, namely to find out how high sensitivity is displayed in the middle childhood and to give recommendation on how to understand, manage and support these HSC. What the participants in the group said during the discussions constituted the essential data (Greeff, 2011). The focus group interview lasted about 90 minutes.

### **Interactive story**

A storybook was specifically written and illustrated to create awareness of HS in the middle childhood, so that HS in the middle childhood could be explored, because according to Piaget, children aged seven to eleven require concrete information that they can recognize directly, in order to think in an organized and logical fashion (Piaget, in Berk, 2009). This interactive storybook was specifically written and illustrated to complete in a once off session to create awareness of HS, by creating a story with characters that the HSC could identify with, ultimately to facilitate self awareness of HS among the children in middle childhood. The interactive nature of the illustrated storybook allowed children to discuss HS, using the story, characters and illustrations; because storybooks can help a child communicate more openly, and puts words to issues, thoughts and emotions (Pehrsson, 2006). In this way HS from a child's phenomenological point of view could be explored. A pilot study was conducted with existing HS clients, aged seven to eleven who would benefit from awareness and management of HS as part of their therapeutic intervention, to assess the feasibility of the study, and to test the effectiveness of the book (Fouché & Delport, 2011).

### **Interview schedule**

Structured interviews were conducted with the HSC, in which the storybook was read, and an interview schedule with predetermined questions (Greeff, 2011) was applied. This interview schedule was detailed, and developed in advance, because probing was not an aim (Niewenhuis, 2010). The researcher adapted Aron's 'parent questionnaire' (2002:xvii-xviii) because it was an existing questionnaire for parents to identify the HSC. This method was chosen because it guided the questions so that awareness of HS in the middle childhood could be explored. There was no existing scale that effectively measured that particular dimension of the study (Delport & Roestenburg, 2011), namely a questionnaire for children to identify themselves. Adaption involved simplifying the language from Aron's (2002: xvii-xviii) 'parent questionnaire' to make it more child-friendly and understandable for the participants, who are not English first-language

speakers. The interview schedule consisted of 23 closed questions, adapted from Aron's (2002) questionnaire, Aron's questionnaire can be obtained from the book *The Highly Sensitive Child* (2002) or online at [www.hs-person.com](http://www.hs-person.com), (See addendum 5). All the questions were provided with a set of responses from which the respondent had to choose (Maree & Pietersen, 2010), namely true or false. One disadvantage of a structured interview schedule is that the participants may be reluctant to answer accurately in the presence of the researcher (Greeff, 2011). It is for this reason that an option of 'not sure' was added as another alternative, as it would reduce the child's need to guess. What is important to mention was that the option of 'not sure' was not counted as 'true', but a 'not sure' answer affected their placement for their level of awareness, (putting them higher on the bar graph, see graph 1). Pilot testing the interview schedule, in its semi final form was done to ensure that any errors were rectified; also to estimate how long it would take to complete (Maree & Pietersen, 2010). The researcher found that some of the questions or statements in the interview schedule were confusing for children in middle childhood, for example, 'I feel more pain in my body' and 'I ask deep, thoughtful questions'. The HSC were not aware of how much pain others felt, and some had difficulty in distinguishing between 'I ask lots of questions' and 'I ask deep, thoughtful questions'. In addition, the children who took part in the study were not English mother-tongue speakers. Even though this problem was identified in the pilot study, the researcher still chose to adapt rather than redesign because the existing questionnaire for adults to identify the HSC was able to guide the questions to explore awareness of HS. In the end the researcher had to rephrase some of the questions during the interview, particularly for the younger children, but they were all in sufficient command of English, as they were being educated in that language.

Furthermore an additional three closed questions were added to the interview schedule, in order to get a sense of the participants feeling of being 'different' (Aron, 2002:141; Goldberg, 2005b:1) talented and 'flawed' (Aron, 2002:4); namely, 'I feel different', 'I know that I will change the world with my talents', and 'I cannot do what others can do easily', these extra questions also had true, false and not sure as a set response (Maree & Pietersen, 2010). In addition after completing the storybook and the interview schedule, another question was added to find out if the participant identified with being HS. The first 23 questions were calculated separately from the rest, because they explored awareness of HSC, the next three questions explored the extent to which the HSC were affected by the condition, and the negative labels often caused by being

misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). The final question tested the effectiveness of the illustrated interactive storybook, specifically if the child identified with being HS. All the participants answered from their own phenomenological perspective, this means staying as close as possible to the individual's experience of how they make sense of their world (Fouché & Delport, 2011; Joyce & Sills 2001). The participant scores will follow under results.

### **Ethical aspects**

The researcher should be competent and skilled to undertake the research in an ethical manner (Strydom, 2011). Great care was taken to avoid deceiving or doing any harm to the participants (Flick, 2009; Strydom, 2011), particularly because the highly sensitive are prone to anxiety and have an active pause-to-check nature (Aron, 2002).

Participation was voluntary for the parent and the child, and only once the parent had signed the consent forms (See Addendum 6 and 7) and the child's assent form (See Addendum 7). Assent is defined as consent for individuals who are not able to give consent, such as minors who are mentally incapable of making an informed decision. Researchers are required to obtain agreements to participate in a study even in cases where legal guardians consent to their participation since no individual should be enrolled in a study that they do not wish to be part of, the information was retrieved from (<http://www.Washington.edu/research/hsd/topics/Consent,+Assent+and+Waivers>). Non-participation would not have disadvantaged them in any way and care was taken to assure participants of confidentiality and anonymity (Strydom, 2011). Other ethical aspects, such as denial of treatment, no compensation, debriefing of participants and an explanation of HS were pointed out in the consent forms, and explained to the parents telephonically where necessary. Arrangements were made with the schools previous educational psychologist to counsel the participants free of charge, if any participant experienced distress from participating in the research. Since the research was undertaken at a school, consent was required from the school representative to allow the learners and teachers to participate in this study (see addendum 8). The representative was made aware of all the ethical considerations. Permission was also obtained from the Gauteng Department of Education (see addendum 9). The Tshwane South district (see addendum 10) was also contacted for permission for the school to participate in this study, so all ethical requirements had to meet their standards. All the teachers who would be participating in the focus group were given consent forms to sign (see addendum 11), and ethical aspects were discussed prior to this. To ensure

the trustworthiness of the study, all the interviews were videotaped, and accurate field notes were made after each interview. In addition, the focus group interview was transcribed (Greeff, 2011). All the data was analysed and recorded in a way that did justice to the participants, and the results were handled in an ethical manner (Flick, 2009).

Ethical procedures were followed to ensure that the research was reliable, meaning that the quality of the measurement would ensure that the same data would be collected each time in repeated of the same phenomenon. Every attempt was made to maintain the validity of the research, which is a term describing a measure that accurately reflects the concept it is intended to measure (Babbie, 2010). Procedures to ensure trustworthiness of the data analysis included verifying the raw data with the participants to ensure that the information that they shared was interpreted correctly. The stakeholders were contacted throughout the process to comment on or assess the research findings. Also an independent coder was used to develop codes from the interview schedule, and their codes were compared to the researcher's. In addition, it is generally accepted that, by engaging multiple methods of data collection, research becomes more trustworthy and more generalisable (Nieuwenhuis, 2010). A qualitative study's transferability or generalisability to other settings can be problematic, and it is seen as a weakness in this type of research (Schurink et al., 2011). To counter these challenges, Schurink et al., (2011) recommends that the theoretical parameters of the research be looked at, and those who design policy or design research within these parameters, can determine whether or not the cases can be generalised for new research policy and transferred to other settings.

Another ethical aspect resulted from the double role that the researcher played, that is being employed as an intern play therapist and inclusive educator at the school. The researcher separated her role during the focus group by distancing herself from the conversation, and would only give her input when psychologically related explanations were required, also the experiences of being HSC were not added to the data, but having been an HSC gave insight into the storybook and planning of the interview schedule, the questions 1-13 were based specifically on Aron's research. However qualitative research acknowledges an interactive relationship between the researcher and participants, as well as between the participants and their own experiences and how they have constructed reality based on those experiences (Nieuwenhuis, 2010).

Refreshments were provided when the children left the office, and after the group interview, but refreshments were not a condition of participation.

## **Results**

### **Qualitative analysis**

Data from the structured interviews and the focus group were collected, and then analysed qualitatively. Qualitative data analysis is usually based on an interpretive philosophy that is aimed at examining meaningful and symbolic content of qualitative data. It tries to establish how participants make meaning out of a specific phenomenon by analyzing their perceptions, attitudes, understanding, knowledge, values, feelings and experiences in an attempt to approximate their construction of reality. This is best achieved through a process of inductive analysis (Nieuwenhuis, 2010). According to Babbie (2010) qualitative data analysis involves the interpretation of observations, for the purpose of discovering underlying meanings and patterns of relationships.

Sometimes qualitative research can be purely descriptive but it is not uncommon for patterns to occur, which take the form of causal relations among variables. Variables are defined as measurements or observations made on the units in the sample (Maree & Pietersen, 2010). In this research with the HSC, a variable-orientated analysis was done to describe and explain a particular variable, and when percentages are analysed in qualitative research to get numerical descriptions, a bivariate or multivariate analysis is carried out. This type of analysis involves looking at the empirical relationship between two or more variables (Babbie, 2010). Qualitative data analysis is a flexible process that allows the researcher to analyse data during the collection process, or once all the data has been collected (Srivastava & Thomson, 2009).

The researcher followed the process as described by Lacey and Luff (2007) and Srivastava and Thomson (2009). First, the data from the interview schedule, field notes and transcripts of video-recorded material was made familiar by thorough reviewing, reading and listening. When conducting data analysis, researchers often engage in a coding process to reduce data, develop themes and find the highlights within. In addition, the relationships between categories were explored and the themes refined until data had been organised and summarised meaningfully. The aim of the analysis was to enhance understanding of the data (Pietersen & Maree, 2010) by reducing the volume of raw data, and finding significant themes or patterns (Schurink, Fouché, & de Vos, 2011). Data was then organised and indexed for easy retrieval and identification

(Srivastava & Thomson, 2009). The data for this study was presented in graphs, or table form (Babbie, 2010; Pietersen & Maree, 2010). The advantage of the graphs is that one can immediately see the most prominent property of the responses to the questions (Pietersen & Maree, 2010). Bar charts are frequently used to graphically summarise a qualitative variable (Pietersen & Maree, 2010) and a two way frequency table is used to explore different response patterns of different subgroups (Pietersen & Maree, 2010). When multiple methods are analysed, and the crystallised reality is credible, the same patterns will emerge, and this adds to trustworthiness of the research (Nieuwenhuis, 2010). Lastly, conclusions were drawn that could contribute towards theory and were incorporated and integrated with pre-existing knowledge (Srivastava & Thomson, 2009). For the purpose of this research, both sets of data was analysed separately, and then the two sets of results will be compared and contrasted in the discussion.

Each premise from one to four was presented graphically to display the themes that emerged after going through the interview schedule, and served to reach the goals set out in this research.

The central goal of this research aimed at investigating the perceptions by HS children in middle childhood, mainly to find out whether they were aware of HS, and the extent to which children in middle childhood are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). Data was coded and then entered on a spread-sheet, using Microsoft Excel. Firstly to summarize the qualitative variable into a numerical format a bar graph was used. In these graphs categories are displayed as bars. The data value of awareness from highest to lowest is represented on the horizontal axis, and the variable level of awareness is on the vertical axis (see graph 1, under premise one). Secondly a two-way frequency table was used to explore different response patterns of different subgroups (Pietersen & Maree, 2010). To find patterns and make sense of the data the following information was obtained, the mathematical average, and the groups were also divided into two equal halves, under level of awareness, which split the participants into lower and higher in level of awareness; age, which was divided into the younger and older group and gender, boys and girls. Each participant's score from 13 - 23 was included in the bar graph. As stated under interview schedule, a 'not sure' answer affected the placement for their level of awareness, putting them higher on the list. After a thorough analysis of the data the

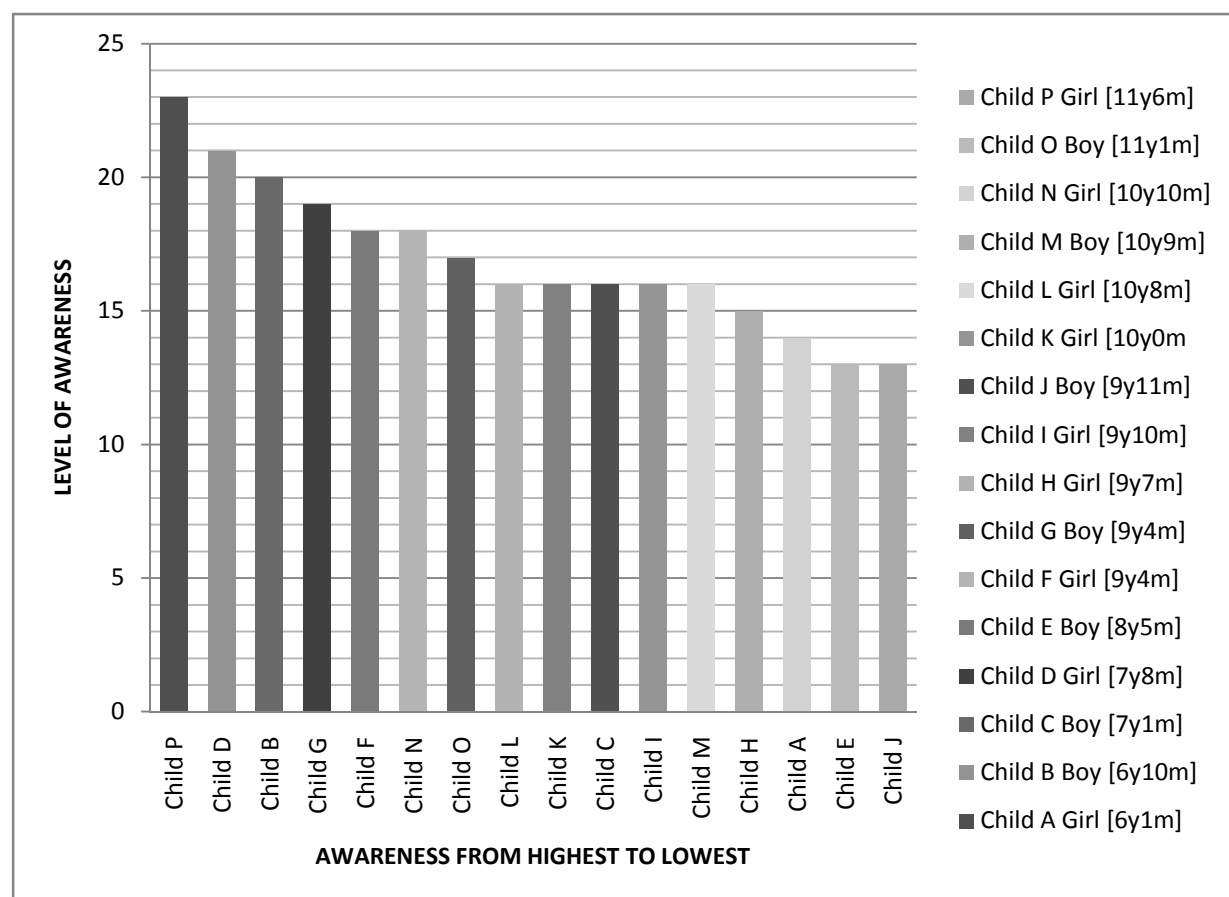
following variables emerged as themes from the data of the HSC's interview schedule: age, gender, and level of awareness. These will be analysed further in graph or table form.

### Premise one

The first premise analysed the primary goal of the study, which was to investigate perceptions by HS children in middle childhood. After the data had been studied, the first themes emerged: level of awareness, age and gender. Each theme will be graphically represented in a bar graph, and will be analysed and discussed separately (see Graph 1).

Graph 1

*Level of awareness: from highest to lowest*



The results showed that children in middle childhood were aware of some of the aspects of HS.

*I get a fright easily.*



*I don't like scratchy clothes, seams in socks, or labels against my skin.*  
*I don't enjoy big surprises.*  
*I learn better from a gentle talk, than a strong punishment.*  
*I seem to know what others are thinking.*  
*I use big words for my age.*  
*I notice the smallest strange smells.*  
*I have a clever sense of humor.*  
*I know things without knowing how I know them.*  
*It is hard for me get to sleep after an exciting day.*  
*I don't like big changes.*  
*I want to change clothes if they are wet or sandy.*  
*I ask lots of questions.*  
*I like things to be perfect.*  
*I notice if others are sad or worried.*  
*I would rather play quietly.*  
*I ask deep thoughtful questions.*  
*I notice pain on my body.*  
*I don't like noisy places.*  
*I notice if something has been moved, or if a person has changed how they look.*  
*I make sure that it is safe before climbing high.*  
*I work best when others are not watching me.*  
*I feel my emotions deeply.*

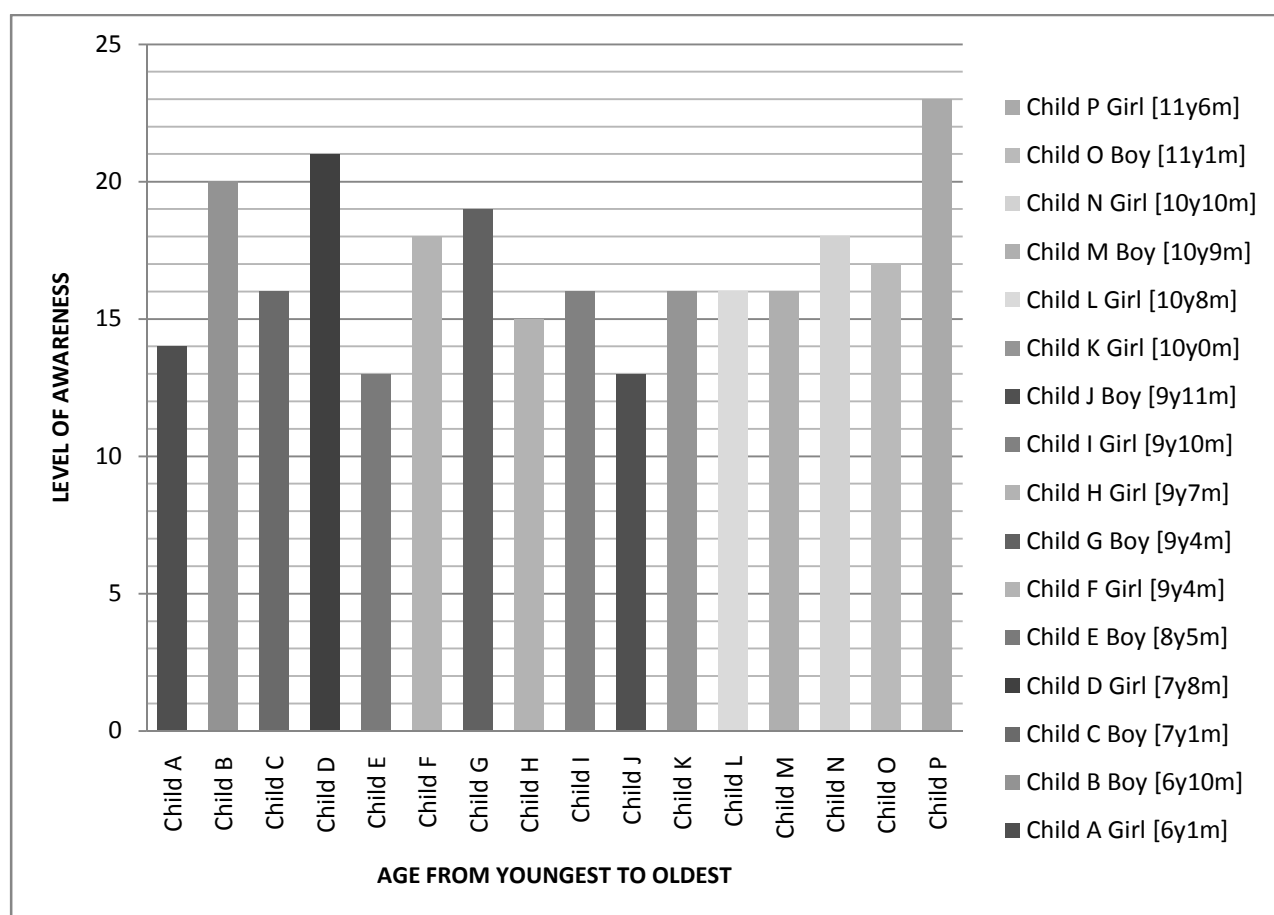
The participants' were aware of aspects of HS, which could be viewed positively and negatively. All 16 participants' scores ranged from 13 -23. The researcher suggests that the number 13 is significant because according to Aron's (2002:xvii-xviii) 'parent questionnaire', if the parent answered 'true' to 13 or more questions, then the child is more than likely HSC (Aron, 2002). The researcher adapted the 'parent questionnaire' (Aron, 2002:xvii-xviii) by simplifying the language and did not change the content. These qualifying scores of 13 or above indicated that they are most likely highly sensitive. Those scoring closer to 13 are considered low in SPS (sensory processing sensitivity) and those scoring closer to 23 are considered high in SPS. The results relating to HS adults and gender show that males score lower in SPS than females (Aron & Aron, 1997) and the researcher found the same results with the HSC using the adapted interview schedule, in addition each child's score of over 13 qualified them as HS. The

researcher suggests that although the ultimate validity of this measure cannot be proved, its relative validity might be agreed upon the basis of face validity defined in Babbie, (2010) as a reasonable measure of some variable based on logic.

An additional two themes or variables emerged in premise one, age and gender. The researcher wanted to investigate whether age or gender would be a factor in the awareness of HS. Firstly the data regarding age and level of awareness was presented in Graph 2. The data values, represented by age are displayed on the horizontal axis with the level of awareness on the vertical axis.

Graph 2

*Level of awareness: Age from youngest to oldest*



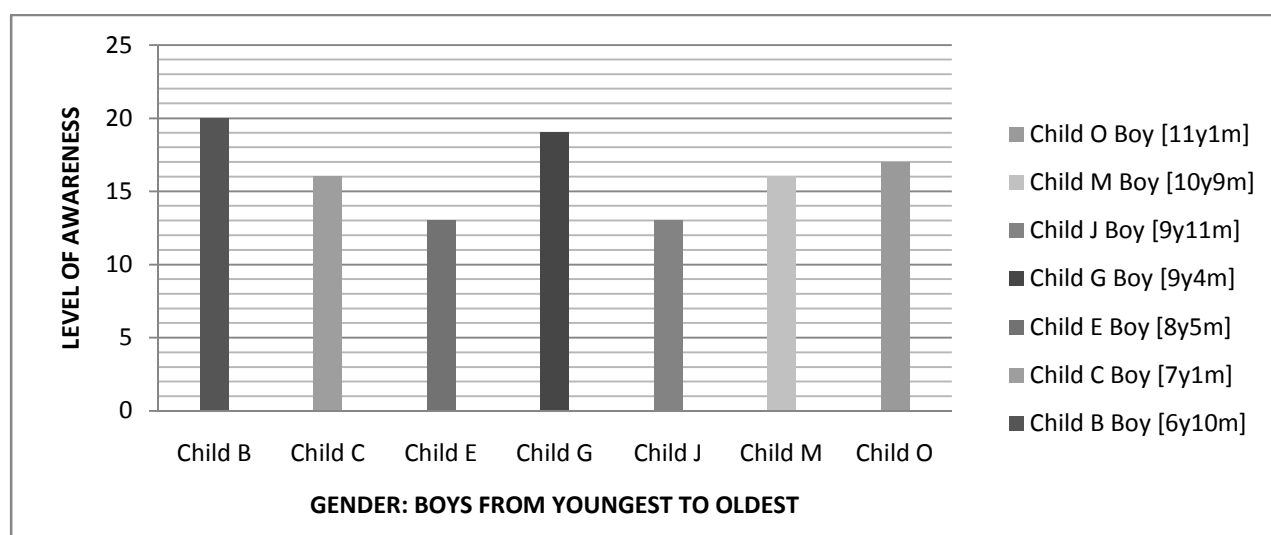
The results for Graph 2 showed that all 16 participants aged between six years and one month and eleven years and six months were aware of aspects of HS, it is therefore suggested that all the HS children in middle childhood were aware of it. The assumption was that foundation-phase learners (aged six to nine) would be less aware of sensitivity. This proved incorrect, because four of those aged six to nine were placed higher on the

level of awareness graph. The researcher found that no pattern emerged linking age to awareness, and that there was no way to predict the level of awareness based on age. In addition, these results suggest that children in early childhood could also be aware of HS, as would be those who are older than 12.

Secondly it was investigated whether gender would be a factor in the awareness of HS (see Graphs 3 and 4). The data was presented in two separate bar graphs and the data values represented by gender are displayed on the horizontal axis with the level of awareness on each vertical axis.

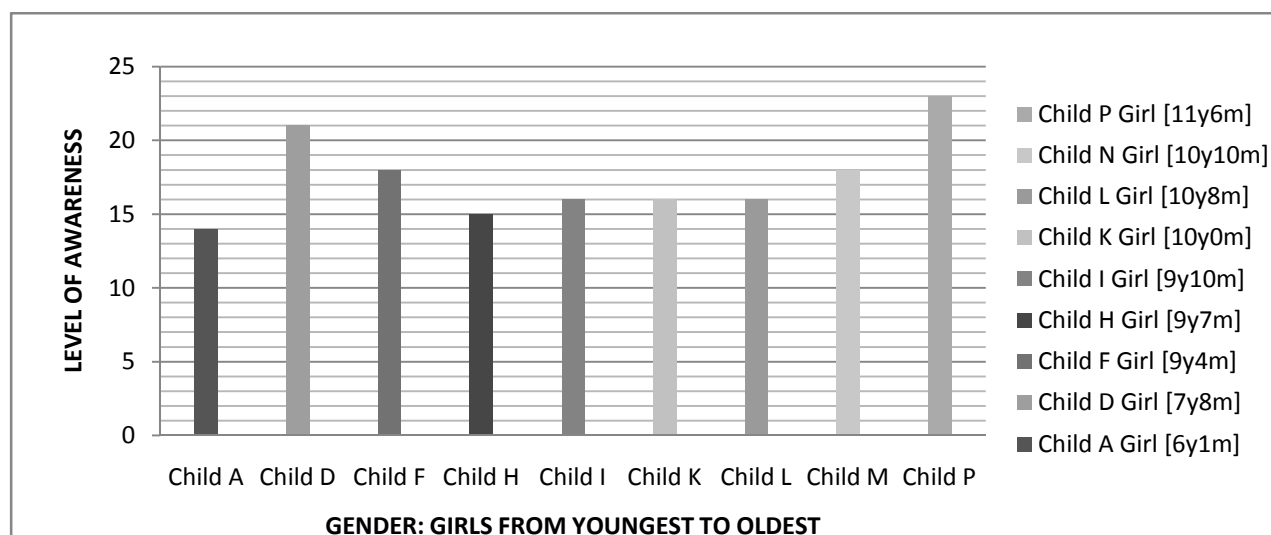
Graph 3

*Level of awareness and gender (boys from youngest to oldest)*



Graph 4

*Level of awareness and gender (girls from youngest to oldest)*



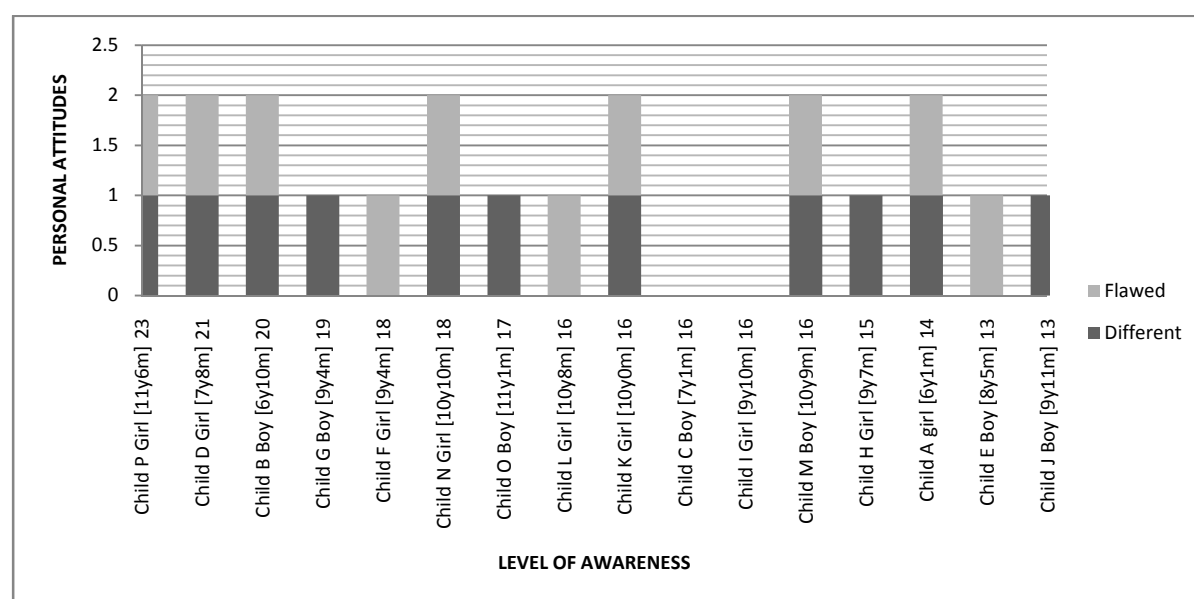
The results of Graphs 3 and 4 showed that both girls and boys were aware of sensitivity. The result of the average for the boys was 16.28, while the average for the girls was 17.4. These figures suggest that gender may affect the level of awareness, with boys scoring lower in their awareness of HS. This correlates with the literature on gender and HSP (see discussion). The study showed that four boys out of seven, aged six to eleven, were considered high in sensory processing sensitivity, and thus, in the researcher's opinion, not afraid of showing their sensitivity. Once more, this correlates with the literature on gender and HSP (see discussion).

## Premise two

The data for the second premise aimed at investigating whether children in middle childhood were affected by HS. According to the literature, most children presenting with HS are aware that there is something 'wrong' (Aron, 2002:11), with them as they experience a feeling of being 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4). For the purposes of this research, the phrase 'I cannot do what others can do easily' was explored, and 'flawed' (Aron, 2002:4) was used to label the phrase

Graph 5

*Level of awareness and the attitude towards being 'different' and or 'flawed'*



14 out of 16 feel either 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4). The results show that a significant majority do feel 'different' (Aron,

2002:141; Goldberg, 2005b:1) (11 out of 16), or 'flawed' (Aron, 2002:4) (10 out of 16). Also a small majority do feel both 'different and flawed' (Aron, 2002:4) (7 out of 16). Therefore the researcher agrees with both Aron (2002) and (Goldberg (2005b), that most HSC do feel 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4). However two participants did not feel either 'different' (Aron, 2002:141; Goldberg, 2005b:1) or 'flawed' (Aron, 2002:4), the researcher was unable to probe, but suggests four possible reasons: a good sense of self, young, so therefore not self-aware, their pause-to-check nature, or a supportive home environment.

The themes of attitude, level of awareness, age and gender were explored once more (see Table 1, 2 & 3). The participants were classified on these two qualitative variables simultaneously as a two-way frequency table with a percentage, which shows the level of a dichotomous variable and frequency distributions. This method is useful for exploring the different response patterns of different sub-groups (Pietersen & Maree, 2010)

Table 1

*Two-way frequency tables with percentages: attitude by level of awareness*

attitude	<u>Level of awareness</u>		Total (%)
	Lower group (%)	Higher group (%)	
I feel different	5 (31.35%)	6 (37.5%)	11 (68.75%)
'I cannot do what others can do easily'	4 (25%)	6 (37.5%)	10 (62.5%)
both	3 (18.75 %)	4 (25%)	7 (43.75%)
neither	1 (6.25%)	1 (6.25%)	2 (12.5%)

According to the results, those who scored higher in awareness did feel slightly more 'different and flawed' (Aron, 2002:4) than the lower group, (25% of the group were higher in awareness, and 18.75% came from the lower group). However, the difference was smaller than the researcher had expected. There is some evidence that those higher in SPS are more vulnerable to neurosis or negative affectivity, and have stronger emotional reactions. However, this is determined by their life history (Aron et al., 2005; Jagiellowicz et al., 2010).

Table 2:

*Two-way frequency tables with percentages: attitude by age*

	<b><u>Age</u></b>		
attitude	Younger group (%)	Older group (%)	Total (%)
I feel different	5 (31.35%)	6 (37.5%)	11(68.75%)
'I cannot do what others can do easily'	5 (31.35%)	5 (31.35%)	10 (62.5%)
both	3 (18.75%)	4 (25%)	7(43.75%)
neither	1(6.25%)	1(6.25%)	2 (12.5%)

The results for this group show that the older children feel slightly more 'different' (Aron, 2002:141; Goldberg, 2005b:1) with (37.5%), while the younger children have (31.35%). The older group are also slightly more both 'different and flawed' (Aron, 2002:4) than the younger group, (the older group had 25%, and the younger group had 18.75%). Going by face validity, it would seem that this is an accurate assumption, because older children are more self-aware and have probably experienced more social, emotional, physical and cognitive difficulties than those who are younger. However, a largerer sample could show different results.

Table 3:

*Two-way frequency table with percentages: attitude by gender*

	<b><u>Gender</u></b>		
attitude	Male (column %)	Female (column %)	Total (%)
I feel different	5 (71.4%)	6 (66.66%)	11 (68.75%)
'I cannot do what others can do easily'	3 (42.85%)	7 (77.77%)	10 (62.5%)
total	8 (57.14%)	13 (72.22%)	21 (65.62%)
both	2 (28.57%)	5 (55.55%)	7 (21.87%)
neither	1 (14.28%)	1 (11.11%)	2 (6.25%)

Owing to the uneven number of girls and boys, (nine girls and seven boys), the results were worked out as percentages. The results showed that the boys felt slightly more 'different' (Aron, 2002:141; Goldberg, 2005b:1) with (71.4%), while the girls had (66.66%). But the girls felt significantly more 'flawed' (Aron, 2002:4) with (77.77%), while the boys had (42.85%). In addition, the girls in this study were much more affected than the boys because they had 55.55% for feeling both 'different and flawed' (Aron, 2002:4), while the boys had only 28.57%. These results correlate with the literature on HS and gender, and will be discussed in the next section.

As already mentioned, two participants did not feel either 'different' (Aron, 2002:141; Goldberg, 2005b:1) or 'flawed' (Aron, 2002:4), one boy aged seven years and one month, and a girl aged nine years and ten months. Both had a level of awareness score of 16. The same seven year and one month boy did not identify with being HS (see premise four). Once again the researcher was unable to probe.

### **Premise three**

The data for the third premise focused on whether HS children in middle childhood were aware that their talents could change the world, because many persons with HS become visionaries and pioneers in their chosen field, many of them being gifted (Aron, 1999).

It was significant that all 16 children who participated in the study knew or had a notion that 'they could change the world with their talents'. It suggests that there was an awareness of inner strengths, as well as an awareness of other competencies.

### **Premise four**

The data for the fourth premise aimed at investigating whether the illustrated storybook could be used to create self awareness of HS in middle childhood. To test the effectiveness of the book, an additional question was posed after the book had been read, and the interview schedule was thereby completed: 'Do you think that you are HS?' The researcher took a 'yes' answer as the child identifying with being HS or a 'no' as not identifying with being HS. If the child identified with being HS, (because they were identified by the teachers, and their parents agreed after reading an explanation of HS in the consent form), then the researcher suggested that the book was effective at facilitating self awareness of HS.

Table 4

*Identification with being highly sensitive*

<b>Participants From youngest to oldest</b>	Child A (Girl 6y1m)	Child B (Boy 6y10)	Child C (Boy 7y1m)	Child D (Girl 7y8m)	Child E (Boy 8y5m)	Child F (Girl 9y4m)	Child G (Boy 9y4m)	Child H (Girl 9y7m)	Child I (Girl 9y10m)	Child J (Boy 9y11m)	Child K (Girl 10y0m)	Child L (Girl 10y8m)	Child M (Boy 10y9m)	Child N (Girl 10y10m)	Child O (Boy 1y1m)	Child P (Girl 11y6m)
<b>Level of awareness</b>	14	19	16	21	13	18	20	15	16	13	16	16	16	18	17	23
<b>Identified with being HS</b>	ID	ID	N ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	N ID	ID	ID

14 out of 16 participants identified with being HSC after reading the book. 2 participants did not identify with being HS even though the boy aged seven years and one month scored 16 on the level of awareness, and the girl aged ten years and ten months scored 18 on the level of awareness. Initially the girl was not sure, but subsequently did not identify with being HS. The researcher suggests age as the reason that the boy not identify with being HS, but it seemed doubtful that age was the reason for the ten years and ten months girl not identifying with being HS. However, the pause-to-check nature of the HS found in both participants may account for their not identifying with being HS. The format of the structured interview did not allow the researcher to further explore the reason for them not identifying with HS, but future research could explore how other variables like low self-esteem or parental support affect attitude to HS.

The analysed data from the focus group interviews will be presented in the next section, under the discussion heading. These results will serve to make the results more information rich and to validate the children's results, in order to make recommendations, conclusions and suggestions for supporting and managing the HSC in middle childhood.

## Discussion

The results from data obtained from the HSC by means of a structured interviews schedule (Greeff, 2011) and accurate field notes, and data taken from transcripts of video-recorded material pertaining to the focus group was presented in discussion form.



The different insights gained through the different perspectives reflect the unique reality and identity of the participants (Nieuwenhuis, 2010). When viewing the topic through multiple dimensions enable the study of multiple constructed realities for more valid results (Maree & van der Westhuizen, 2011). The established patterns were critically reviewed and compared with the literature findings to explain the differences and similarities between the current findings and the existing knowledge, and to find out how the new findings could advance knowledge (Fouché & Delport, 2011). In this case it amounted to making recommendations to teachers, and other stakeholders on how to support, manage and reframe HS in middle childhood, so that the HSC can reach their full potential. The limitations of the study and possible future research opportunities were included.

In the present study, the first premise, which is also the problem statement, is to discern perceptions by HS children in middle childhood. It will be discussed under the following themes: age and awareness, and gender and awareness. With reference to the first premise, and the theme of age and awareness, the researcher anticipated that children aged six to nine would be less aware of HS because of their age. The assumption proved incorrect, with four children aged six to nine being placed in the upper half of awareness. The results also suggest that children younger than six are very likely to be aware of sensitivity. Older children and adults would also be aware of their sensitivity, and the researcher predicts that they would experience the same difficulties. These research results support Aron's (2002:141) statement that 'the child will notice sooner or later that they are different'. This research showed that the HSC in the middle childhood were in fact aware of aspects of HS, and the results of the interview schedules showed the extent to which this was so.

Data for the focus group, which consisted of teachers who teach children in middle childhood, added the fact that children in middle childhood know that they are different. The teachers stated that the HSC 'just don't like what others like' and 'make excuses not to do something'. However the teachers believe they have no insight or awareness that sensitivity is the cause, 'they become more aware in high school'. Research in adolescent development supports the teacher's view and states that their psychosocial task is to build their identity (Erikson in Toman & Bauer, 2005; Oaklander, 2006). Aron (2002) supports the opinion that they do not know that HS is the reason.

The second theme under the first premise also postulated that girls would be more aware than boys, because literature on HS and gender in adults states that HS women score higher in sensory processing sensitivity than men (Aron & Aron, 1997). The researcher found this to also be the case in children, with girls (average was 17.44) scoring higher in sensory processing sensitivity than boys (average 16.28). The point is corroborated in the literature in the point under perspectives flowing from the environment issues, where the cultural expectations for girls to be warm and expressive, and boys to be distant and self-controlled were apparently largely responsible for the gender gap in emotional sensitivity (Berk, 2009). Literature pertaining to sensitivity and age shows that sensitive older boys and men in our society often feel they have to hide their sensitivity (Aron, 2002). The study showed that four boys out of seven, aged six to eleven, were considered high in sensory processing sensitivity, and thus, in the researcher's opinion, not afraid of showing their sensitivity.

The second set of arguments anticipated that HS children in middle childhood were affected by HS and the negative labels caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002). The results showed that most participants identified with being either 'different' (Aron, 2002:141; Goldberg, 2005b:1) or 'cannot do what others can do easily' ('flawed') (Aron, 2002:4) or both 'different and flawed' (Aron, 2002:4) (see Graph 5). This corroborates the statements, that HSC have a feeling of being 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4). Those who were in the upper level of awareness showed more inclination to feel 'different' (Aron, 2002:141; Goldberg, 2005b:1) or 'flawed' (Aron, 2002:4) or both 'different and flawed' (Aron, 2002:4) (see table 1). The older group also showed more evidence of feeling 'different and flawed' (Aron, 2002:4) than did the younger group (see table 2). Boys showed slightly more evidence of feeling 'different' (Aron, 2002:141; Goldberg, 2005b:1), while girls showed much more evidence of feeling 'flawed' (Aron, 2002:4) (see table 3).

The results of the focus group also showed that teachers clearly recognised them from their 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4) behaviour. These differences manifested socially, educationally, emotionally and sensorily. Data from the teachers will follow in point form under these headings, and a discussion combining the existing research and researcher's opinion will follow in a paragraph.

## **Socially**

- They often need to isolate themselves socially in order to cope with sensory overstimulation resulting from, inter alia, overcrowding, busy classrooms or children shouting.
- They prefer smaller groups of friends, and are usually happy with just one.
- They make up excuses to avoid uncomfortable social situations, such as playing games where touching is involved, and parties.
- Many find sharing difficult because of sensory issues, such as personal space and perceived dirt.
- Those who do not understand the HS believe that they are cold and uncaring, because many HS do not like physical affection, such as hugs and kisses.
- They are slow to talk to others.
- HSCs can appear insecure which makes them an ideal target for bullies.

According to the teachers HSC have difficulty in the social setting. Research has also found that the HSC struggle socially as they are referred to as shy, timid and introverted (Aron, 2002; Goldberg, 2005b), and has already been pointed out, that this labelling is inaccurate (Aron, 2002). Their behaviour is often their way of coping with sensory overstimulation and their pause-to-check nature. These difficulties also make them reluctant to touch and talk to others (Aron, 2002), and those who do not understand the HSC, such as a teacher mentioned in the focus group 'believe that they are not loved', infact, Aron (1999) and Hartmann in Jawer (2005) state that the opposite is true, and that they are capable of more intense love.

## **Educationally**

- They struggle with the pace and workload.
- They need more time to grasp concepts and finish assessment tasks.
- They need more time to think, and take longer to answer.

- Many experience attention difficulties, and are treated for ADD.
- They are often misdiagnosed as having learning problems.
- Many feel unfairly treated because they have to stay behind to finish their work.
- They can be perfectionists, and they struggle to finish their work according to their own exacting standards.
- They experience frustration and irritation when their needs are not accommodated in the classroom.
- The added stress causes them to withdraw from pressure and to shut down.
- Owing to negative labelling, they start to believe that there is something wrong with them, and then they may under-achieve.
- They experience a poor sense of self or self-esteem, and they become unmotivated, and eventually under-achieve.
- Most HSC do not like being the centre of attention, and tend not to talk in class, or will not shout out the answers. Their quiet and withdrawn behaviour in class means that they are often overlooked.
- The HSC are conscientious and want to understand the work. They do not like to 'waste time' playing and telling anecdotes.
- The HS are viewed as 'brilliant' and the 'stars', but their understated behaviour often means that they are overlooked at prize-giving.
- They enjoy independent study

The teacher's responses indicate that the HSC struggle in class. According to Aron (2002) the HSC process information more thoroughly, and therefore take longer to understand the work. In addition, many experience attention difficulties, and are treated for ADD (Aron, 2002, Goldberg, 2005b), but Aron (2002) explains that in the case of the HSC, sensory over-stimulation is the reason for their lack of concentration. The researcher suggests that the HSC are 'different' (Aron, 2002:141; Goldberg, 2005b:1) from their peers and may not find the normal school curriculum stimulating, particularly because they excel in art, music, dance and drama, also these activities are frequently

neglected in favour of more academic subjects. In addition their learning style of working on their own, and at their own pace is not always practical in a classroom situation.

### **Emotionally**

- The HSC are often recognised because they are more emotional and anxious.
- They often give the impression of being mentally ill.
- They have a fragile self-esteem, which is easily boosted or broken down.
- Teachers need to think twice before reprimanding the HSC.
- Their strong emotions and dislike of punishment make them more disciplined and reluctant to misbehave.
- The HS are easily scared, and as a result different punishment methods are needed.
- They anticipate the worst and jump to conclusions.
- More time is needed to discuss the issue and teachers should be soft-spoken.
- It is better to talk to these children on a one-to-one basis.
- They take time to open up, because they take longer to trust a situation.
- If treated unfairly, they hold a grudge.

The teachers noticed that the HSC appear mentally ill, their opinion is supported by Aron (2002) and Goldberg (2005b). Aron points out however, that if the HSC experience a childhood during which they were free to express their sensitivity and feelings, they would not present with symptoms of depression, anxiety (Aron, 1999; 2002, 2006), also with good parenting, sensitive or emotionally reactive children are healthier (Ellis, Essex & Boyce, 2005 in Jagiellowicz et al., 2010). Also when the HSC have been prepared in advance of a change, and all anticipated fears have been discussed, they need not be anxious (Aron, 2002).

## **Sensorily**

- They often suffer as the result of noise, textures, personal space and dirt, movement and visual clutter.
- They have an 'untidy' appearance
- They need to conserve energy or recharge, and will withdraw or isolate themselves from daily pressures, or will shut down (see signs of sensory overstimulation).
- Sensory over-stimulation from things like too much noise or activity in the classroom affects the quality of work produced.
- Shows signs of sensory over-stimulation.

The teachers found that they often suffer as the result of noise, textures, personal space and dirt, movement and visual clutter. Their difficulties arise from being aware of sensory subtleties, often leading to sensory difficulties (Aron, 2002; Goldberg, 2005b). Every child has a different sensory profile (some are sensory-seeking, and others are sensory-avoidant), so what worries one HSC may not necessarily affect the other (Dunn, 2001; Lombard, 2007). The researcher suggests that teachers need to take personal aspects such as uniforms, seams in socks, hairstyles, buttons or shoes into consideration, and the teachers statement that they appear 'untidy' may be their way of dealing with their discomfort.

## **Effects of negative labelling**

According to the results for the focus group, the HS feel 'misunderstood', unappreciated', 'unloved and unwanted', and this feeling is reinforced by the negative labels used in the focus group, such as 'quiet', 'fussy', 'perfectionist', 'anxious/nervous' or to describe their personality the words 'shy', 'timid', 'cautious' 'empathetic' and conscientious were explained but not directly mentioned. Shy was referred to as 'he did not like to talk in class'; 'they don't like the limelight'; 'she does not want to meet people' and timid was explained as 'their facial reaction of fear for the lecture that will happen'; 'they always think it is bad news and they anticipate the worst'. Cautious is described as 'will look to see if it is safe'; and empathetic is referred to as 'would give everyone else first'; while conscientious is explained as 'they want to understand the work and there is no time to

play, or to share stories'; 'the child seems to remember all the words and doesn't want to do wrong again'. These labels concur with those found in the literature (Aron, 2002; Goldberg, 2005b). Further, the teachers' accuracy when selecting the HS for the sample criteria further reinforced the point that HS children are being mislabelled misunderstood and misdiagnosed (Aron, 2002:24-27). The teachers had also seen and experienced first-hand the stress response symptoms to sensory over-arousal in a severe case. The teachers reported that the child displayed 'animal' behaviour. They also maintained that he would act according to the label that he had been given, that is, 'not normal'. According to Aron (2002) and Goldberg (2005b), symptoms of HS can be interpreted as, inter alia, depression, ADD, ADHD or autism. The researcher would view symptoms of over-arousal, such as aggression and outbursts (Lombard, 2007), as conduct disorder.

The third premise proposed that children in middle childhood would be aware of the talent that would change the world. The theme emerged indicating that they could still reach their full potential, but had significant obstacles to overcome in this at-risk inner city environment. Their having that sense of awareness suggested their sense of self had not been damaged from being 'different' (Aron, 2002:141; Goldberg, 2005b:1) and/or 'flawed' (Aron, 2002:4), and that they could still be encouraged to reach their full potential. This is important because, as shown in the literature, HS can become presidents, artists, scientists or inventors (Aron, 2002; Berrington, 1974; Osche, 1994). The results of the focus group also recognised them as those 'there is something different about the books they are brilliant'; 'People who have done better'; 'the stars'. The researcher suggests that an at-risk inner city environment could be an ideal place to nurture the eminent creative and creative genius, because when adverse conditions disrupt the normal socialisation processes that children typically experience (Albert, 1994 in Olszewski-Kublious, 2000), they immerse and isolate themselves, and would rather work on their own interests (Olszewski-Kublious, 2000; Ochse, 1994; Dabrowski in Jawer, 2005). Also according to Albert (1994) in Olszewski-Kublious, and Osche (1994), those who are low in social or economic status might capitalise on early talents, such as sports or entertainment, because the traditional routes to success and achievement, including formal education, may not be viable. Currently, the teachers believe that the HSC's socio-economic circumstances may prevent them from realising their full potential and they still have significant obstacles to overcome. However, the researcher further suggests that these HSCs need a teacher who acts as a mentor, as they need

intellectual stimulation, and exposure to opportunities relating to their interests. Osche (1994) maintains that the creative genius is usually inspired by a certain teacher who values and recognises their potential and steers them towards their goal.

The fourth premise proposed that the book could be used to create self awareness of HS in the middle childhood, so that the HSC will be able to identify with being HS. According to the literature on story and therapy, books can aid the process of self-discovery, and improve self-efficacy, communication skills and emotional growth (Pehrsson, 2006). The researcher found the storybook effective in creating self awareness of HS in middle childhood, because it facilitated identification in 14 out of 16 participants. The researcher suggests that if the child identified with being HS, (after they were identified by the teachers, and their parent's agreed after reading an explanation of HS in the consent form), then the researcher suggests that the book was effective, as it facilitated self awareness of HS.

The teachers added then following comments about the use of a storybook as an awareness making tool, a) 'the HSC can become more self-aware in a non-threatening and child-friendly way'; 'they cannot identify with the other people around them because they are different ' b) 'the book can make them feel better about themselves ' ; 'they see themselves in the book and no one is laughing at them'; 'they learn to appreciate themselves as they become more self-aware'; 'they come to know themselves as somebody who has a place in society'. c) 'the storybook is trusted as they get information from someone who knows, like an adult or an authoritative figure such as the author of the storybook, the teacher or the parent and they believe them'. Other points to consider are that the advantage of this format is that when the child and adult (parent) read together their relationship improves. It can also reduce mislabelling and misdiagnosis, as parents, teachers and other professionals learn to understand the HSC, and can then provide better support. The HSC can also read by themselves when there is no pressure in a more relaxing context. The disadvantage that was also pointed out, was that some children do not enjoy reading, and will not read a book if they are forced to do so, this is also the problem in at-risk and inner city environments where there are language barriers and a lack of parental support. The researcher suggests in such environments a teacher or a librarian could read the story, or let the child borrow the book as a prescribed library book. Taking all the findings concerning the book into account, the researcher suggests that the storybook would be a valuable tool for



teachers to support and manage HS in the middle childhood. The researcher also proposes that when the book is successful at facilitating identification and self awareness, then the HSC would be one step closer to change. The theme to be considered is identification versus fragmentation, according to gestalt philosophy every experience can be identified with, or disowned. When a person alienates or disowns anything, psychological conflict is created; resulting in the individual's feeling divided and fragmented (Yontef & Fuhr, 2005). According to Beisser (1970) and the Paradoxical Theory of Change (see Gestalt perspective), when one makes the choice to be as one is, the individual can change the self or the environment (Oaklander, 2006; Yontef & Fuhr, 2005). It is argued that, 'when people identify with their whole selves, when they acknowledge whatever aspect arises at a moment, the conditions for wholeness and growth are created' (Yontef & Fuhr, 2005:83). Also statements of the self and owning projections allow for awareness of the self and their place in the world. Through this awareness, the self is strengthened, allowing change to take place (Oaklander, 2006). Thus the researcher would propose that identifying with being HS brings them closer to change.

To sum up all the goals set out in this research were achieved, perceptions by the HSC in middle childhood were explored to find out the level of awareness of HS, and to discover the extent to which children in middle childhood are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). An illustrated storybook was created and used as a tool to facilitate awareness of HS, so that the condition could be explored. Teachers who teach HSCs in middle childhood were interviewed to find out how HS is displayed, this exploration was necessary in making recommendations for providing guidance and advice for the teachers and on how to understand, support and manage HS in middle childhood.

## **Conclusion**

It can be concluded that children in middle childhood are aware certain aspects of HS, and a significant number of them are affected by the negative labelling and do feel 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4). In addition teachers do not realise that HS is the reason, leading to mislabelling and misdiagnosis. The main conclusion reached is that teachers need to become more aware of HS in order to identify, support and manage it, because according to teachers if the HSC experiences a childhood when they are supported they will 'fly'. Owing to the

lack of awareness of HS amongst teachers, the HSC are misunderstood and criticised for their uniqueness. When HSCs feel understood, and appreciated they cope better and even thrive, and are described by teachers as ‘People who have done better,’ and ‘the stars’. It should be stressed that support from home at an early age is very important, and, without the help of parents, teachers cannot succeed, because it is difficult to accommodate the HSC’s social, academic, emotional and sensory needs. The problem is that, in a school situation, there is a no time to deal with them, so the HSCs begin to feel irritated and frustrated, and then develop a poor sense of self. Managing the HSC is essential to the child’s complete well-being, but with good management they could reach their full potential. It is important to mention that the HS can become worse if they are not managed well.

### **Recommendations**

The design was an applied approach aimed at solving specific policy problems and problems in practice (Fouché & de Vos, 2011). In this case making recommendations to teachers and other stakeholders on how to support and manage the HSC.

- Making teachers aware of HS by means of lectures and workshops, so that the HSC can be identified, managed, supported and empowered.
- Making teachers aware by means of lectures and workshops, to reduce misdiagnosis and mislabelling.
- HS should be emphasised in the university syllabus, as none of the teachers had learned about Aron’s understanding of HS.
- HSC in the middle childhood need to be identified, since they are already aware of aspects, so that HS can be managed, supported and reframed.
- Teachers need to play a role in educating parents, and peers about the HSC.
- Management of needs interventions and strategies should be administered from an earlier age at home and at school.
- Educate the HSC to recognise the symptoms in themselves, and learn how to cope with the challenges that HS brings.

- Background information from home and previous school could assist them to support and manage these children.
- Empower the HSC by being a life coach to them, since the children still need to be empowered to stand up for themselves, and do things, even if they are apparently anxious to do so, on their own.
- Opportunities to enhance self-esteem and self-awareness, leading to an enhanced sense of self.
- Opportunities to make them aware of their talents and interests, so that the talents can be nurtured.
- Encourage HSC uniqueness, and when the children are appreciated they will 'fly'.
- Understand, accept and accommodate their needs, including their need to be alone. Do not stress the HS because in the end they will relate to others better, and function better.
- More time is needed for discipline, and different, softer methods are needed.
- The illustrated storybook could be a useful tool for teachers to facilitate awareness of HS and could be valuable for parents and peers to create awareness of HS.
- The illustrated storybook could be a useful tool for the HSC to facilitate identification with being HS, and can become more self aware.

### **Research Limitations**

The limitations identified within this study are as follows:

- There is limited literature on HSP, and significantly less on HSC. The researcher was therefore unable to use previously-tested methodologies or data specific to the HSC.
- Some of the questions or statements in the interview schedule were confusing for children in middle childhood, for example, 'I feel more pain in my body' and 'I ask deep, thoughtful questions'. The HSC were not aware of how much pain others felt, and some had difficulty in distinguishing between 'I ask lots of questions' and 'I ask deep, thoughtful questions'.

- The children who took part in the study were not English mother-tongue speakers, but they all had command of the English language, as they were being educated in it.
- Owing to the language barrier, the researcher had to rephrase some of the questions during the interview, particularly for the younger children, but all the participants answered from their own phenomenological perspective. Even though this problem was identified, adaption was still favoured over redesign because the existing standardised questionnaire could guide the interview schedule for the HSC.
- HSC are prone to anxiety, because of their inclination to pause and check, so they were given the opportunity of asking questions about uncertainties, such as what was expected of them, what I needed it for, and whether it was for marks, or not etc ensuring that a potentially perceived threatening situation was minimised.
- A number of variables came to the fore in this particular group who had not previously been addressed by the researcher; neither had previous research done so. Aspects such as country of origin, skin tone, environmental support, and suffering from issues with their sense of self could have affected the outcomes.
- Exploring some of the variables referred to in further studies could bring valuable new perspectives and outcomes. These studies could be undertaken by carrying out in-depth case studies. This study, which is of limited scope, did not allow for further exploration of the aspects already mentioned.
- Qualitative in-depth case studies with HSC, exploring more variables, are also recommended.
- A limitation to this study is the socio-economic status of the participants, as these children often have less parental support, but may get support from the close family, the extended family and the community.
- It would be valuable if the same type of study could be undertaken with HS children living in other socio-economic circumstances, different areas and different cultures. The specific nature of the population, with lower incomes, in an at-risk and inner city community, may have influenced some of the results, but the school is a Westernised fast-paced environment.

- A qualitative study's transferability or generalisability to other settings can be problematic, those who design policy or design research within these parameters, can determine whether or not the cases can be generalised for new research policy and transferred to other settings (Schurink et al., 2011:420).The researcher wanted to point out that the information on HS from the focus group could be generalised to other population groups with Western standards (Strydom, 2011:223) and other HS in an at-risk inner city community.
- Qualitative in-depth case studies with HSC, exploring more variables, are also recommended.
- It is recommended that larger samples for quantitative research on highly sensitive children be used, in order to gain greater insight into the phenomenon over a wider range and area, across cultures and in various environments.
- Future research on HSC is desired and could be valuable, as the research into the HSC is of a limited nature.
- No available scale existed for children to identify themselves, therefore the study was limited to a qualitative design approach.
- Advise designing a standardised structured questionnaire for the HSC to identify themselves.
- Advise future research for parents and professional on how to support the HSC.

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## **SECTION C: SUMMARY, EVALUATION, CONCLUSIONS AND RECOMMENDATIONS**

### **1. INTRODUCTION**

The following section of this research study aims to provide a summative overview of the findings reached through the research process. This section also contains the conclusions arrived at in Article 1, and the subsequent recommendations for further research.

### **2. SUMMARY OF THE RESEARCH**

One in five children are born highly sensitive (HS), with a nervous system that is more sensitive to sensory subtleties. The highly sensitive child (HSC) presents with behaviour that is often his or her way of coping with sensory overload in their environment. The symptoms of HS are often mistaken for shyness, introversion, timidity and a low sensory threshold. Owing to a lack of understanding teachers mislabel, misunderstand, misinterpret and misdiagnose these children as mentally ill, as presenting with ADD or experiencing learning problems. When these HSC are misunderstood, they begin to feel 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4), which can lead to low self-esteem (Aron, 2002:1-38). The purpose of this study was to explore the perceptions by children in middle childhood, using an interactive storybook, to find out whether they are aware of HS, and the extent to which they are affected by the negative labelling often caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). The teacher's perceptions were also required to add insight into how HSC is displayed in the middle childhood, and this exploration was necessary to make recommendations for providing guidance and advice for the teachers on how to understand, support and manage HS in middle childhood. This research required a qualitative stance, because this research attempts to penetrate the human understanding and constructions about it (Nieuwenhuis, 2010:80). When viewing the topic through multiple dimensions and angles in qualitative research the term crystallization is used (Maree & van der Westhuizen, 2010:40-41), and this adds to trustworthiness of the research (Nieuwenhuis, 2010:81). Structured interviews (Maree & Pietersen, 2010:161; Babbie, 2011:256) were conducted with the HSCs, consisting of an interactive story which was written and illustrated to create explicit awareness of HS. After reading this storybook, an interview schedule with predetermined questions was applied (Greeff, 2011:352). Next, a focus group interview was conducted with the

teachers, to explore the perceptions by teachers who teach children in middle childhood. To collect data from the teachers, the researcher used focus group methodology. This method is a carefully planned discussion (Greeff, 2011:361), with a structured set of questions (Nieuwenhuis, 2010:91) which are used to guide the focus group and to collect the data through group interactions, where participants share perceptions, points of view, experiences, wishes and concerns without being pressurised (Greeff, 2011:360-361). The aim of this research was to explore the perceptions by HS in middle childhood, using the illustrated storybook to facilitate awareness in the HSC, to discover their level of awareness and the extent to which they are affected by the negative labelling often caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). The teacher's perceptions were also required to describe how HS is displayed in the middle childhood, in order to understand them better. This exploration was necessary in making recommendations for providing guidance and advice for the teachers on how to understand, support and manage HS in middle childhood. When multiple methods are analysed, and the crystallised reality is credible, the same patterns will emerge, and this adds to trustworthiness of the research (Nieuwenhuis, 2010). The results were compared and contrasted with existing literature before being presented in discussion. Finally, recommendations were made on more effective management and support of the HSC because many do feel 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4), and to reduce mislabelling often the result of misdiagnosis, misinterpreting and misunderstanding misinterpreted (Aron, 2002:24-27). The storybook which was written and illustrated to facilitate awareness of HS, could become a tool to support, manage and reframe HS in the middle childhood, assisting the children to reach their full potential. Many HSC are gifted (Aron, 2002:10; Goldberg, 2005a:1), and often become visionaries and pioneers in their fields (Aron, 1999:7).

### **3. EVALUATION OF THE RESEARCH**

#### **3.1 Aims and objectives of the study**

The purpose of this study was to explore perceptions by the HSC in middle childhood to find out the level of awareness of HS in such children, and to discover the extent to which children in middle childhood are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). An illustrated storybook was created and used as a tool to facilitate awareness of HS, so that the condition could be explored. Teachers who teach HSCs in middle childhood

were interviewed to find out how HS is displayed. This exploration was necessary in making recommendations for providing guidance and advice for the teachers and on how to understand, support and manage HS in middle childhood. There were also recommendations for reframing HS into something positive, so children can reach their full potential.

This aim gave rise to the following objectives:

- To explore the perceptions by HS children in middle childhood using an interactive storybook to discover the children's awareness of HS, and to discover the extent to which children in middle childhood are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27).
- To explore perceptions by teachers who teach HS children in middle childhood to find out how HS is displayed at this stage, and to provide recommendations on how to support the HSC in the middle childhood.
- To find out whether an interactive storybook can be used to deal with HS.

### **3.2 Aims and objectives that were reached through this study**

- Objective 1 was achieved by exploring the perception of HS children in middle childhood; to find out how aware they are of HS, and to discover the extent to which children in middle childhood are affected by the negative labelling caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). This was done using qualitative data analysis gathered from an interview schedule, after reading an illustrated storybook to each HSC.
- Objective 2 was achieved by exploring the perception of teachers who teach HS children in middle childhood, to find out how HS is displayed in these years, and to provide recommendations on how to support the HSC. This was done by qualitatively analysing transcripts of a focus group interview.
- Objective 3 was achieved by using the storybook to create awareness of HS and to facilitate identification with being HS.

### 3.3 Significant findings

- Children aged from six to eleven are aware of aspects of HS. In addition, the results suggested that children in their early childhood could also be aware of HS, as would be those who are older than twelve.
- Age does not affect their level of awareness.
- Gender is a factor in the level of awareness, with girls scoring higher than boys.
- Many HS children aged from six to eleven, feel 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4). The higher the level of awareness, the more 'different' (Aron, 2002:141; Goldberg, 2005b:1) or 'flawed' (Aron, 2002:4), or 'different and flawed' (Aron, 2002:4) they feel. Boys feel more 'different' (Aron, 2002:141; Goldberg, 2005b:1) and girls feel significantly more 'flawed' (Aron, 2002:4).
- Teachers clearly distinguish HSCs from their peers because of their 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4) behaviour.
- The HS are misunderstood, mislabelled and misdiagnosed.
- The HS struggle socially, educationally, emotionally and sensorily.
- The HS need a different disciplinary method, because they respond to gentle talks.
- All the children interviewed had a notion that they would change the world with their talent.
- Their sense of self has not been destroyed by negative labelling and they could still reach their full potential.
- Teachers need to play a role in educating parents, and peers about the HSC.
- The HSC need to be identified so that they can be supported, encouraged, and managed on the way to reaching their full potential.
- Educate the HSC to recognise the symptoms in themselves and learn how to cope with the challenges that HS brings.
- Management of needs interventions and strategies should be administered from an earlier age at home and at school.



- When the HSC come from a supportive environment where HS is appreciated and managed well, the children will cope well and become confident.
- The illustrated storybook could be a useful tool for teachers to facilitate awareness of HS and could be valuable for parents and peers to create awareness of HS.
- The illustrated storybook could be a useful tool for the HSC to facilitate identification with being HS, and can become more self aware.

### **3.4 Testing the theoretical argument**

The central theoretical argument was that if perceptions by children in the middle childhood could be explored, using the interactive storybook as a tool to facilitate awareness of HS. Then insight gained from exploring the perceptions by HSC, and their teachers will lead to a better understanding of how the HSC experience their world, and whether they experience any difficulties as a result of negative labelling, often caused by being misunderstood, misdiagnosed and misinterpreted (Aron, 2002:24-27). Subsequently, recommendations were made based on teachers' perceptions of how HS is displayed in the middle childhood, to support and manage the HSC so that they can reach their full potential. This is valuable as many HSCs are gifted, and they often become visionaries and pioneers who excel in their fields. The interactive storybook could become a tool to support and manage the HSC.

### **3.5 Dissemination of information**

The research article has been provisionally prepared as a manuscript to be submitted for possible publication in the *Journal of Applied Developmental Psychology*.

## **4. CONCLUSIONS**

It can be concluded that children in middle childhood are aware of aspects of HS, and a significant number of them do feel 'different' (Aron, 2002:141; Goldberg, 2005b:1) and or 'flawed' (Aron, 2002:4). In addition, teachers do not realise that HS is the reason for this, which results in the mislabelling, misunderstanding, misinterpreting and misdiagnosis (Aron, 2002:24-27). The main conclusion reached was that, teachers should become more aware of HS so they can identify, support and manage the condition, and could play a role in educating the parents, the HS themselves and their peers, because if the HSC experience a childhood where they are free to express their sensitivity, they can become highly confident. Because of the lack of awareness of HS

among teachers, the HSC are misunderstood and criticised for their uniqueness. It is consequently important for teachers to understand the child's personality, because, when the HSC feel understood and appreciated, they cope better and even thrive. It must be stressed that support in the home at an early age is very important, and, without the parents' help, the teachers cannot succeed. It is difficult to accommodate the HSC's social, academic, emotional and sensory needs. There is no time to deal with them, so the HSC begin to feel irritated and frustrated, and then develop a poor sense of self. Managing the HSC is essential to the child's complete well-being, and with good management they can reach their full potential. The storybook that was specially created for this research project could become a tool to identify, support, manage and reframe the HSC. It is important to point out that the HS can become worse if they are not managed well.

## **5. RECOMMENDATIONS FOR RESEARCH, POLICY AND PRACTICE**

### **5.1 Recommendations for research**

- It would be valuable if the same type of study could be undertaken with HS children living in other socio-economic circumstances, areas and cultures. The specific nature of this population, with the lower income, the inner city environment and the concomitant environmental deprivation makes this particular group an at-risk and inner city community.
- Advise designing a standardised structured questionnaire for the HSC to identify themselves.
- Advise future research for parents and professional on how to support the HSC.
- It is recommended that larger samples for quantitative research on highly sensitive children be used, in order to gain greater insight into the phenomenon over a wider range and area, across cultures and in various environments.
- Qualitative in-depth case studies with HSC, exploring more variables, are also recommended.
- Future research on HSC is desirable and could be valuable, as the existing research into the HSC is of such a limited nature.

## **5.2 Recommendations for policy**

- HS should be emphasised more in the university syllabus, because, while the teachers in this study knew about sensitivity, none of them was aware of Aron's understanding of HS.
- Programmes for self-awareness and stimulation should be implemented at schools to support the gifted and creative.

## **5.3 Recommendations for practice**

- Making teachers aware of HS by means of lectures and workshops, so that the HSC can be identified, managed, supported and empowered.
- Making teachers aware by means of lectures and workshops, to reduce misdiagnosis and mislabelling.
- HSC in the middle childhood need to be identified, since they are already aware of aspects, so that HS can be managed, supported and reframed.
- Teachers need to play a role in educating parents, and peers about the HSC.
- Management of needs interventions and strategies should be administered from an earlier age at home and at school.
- Educate the HSC to recognise the symptoms in themselves and learn how to cope with the challenges that HS brings.
- Background information from home and previous school could assist them to support and manage these children.
- Empower the HSC by being a life coach to them, since the children still need to be empowered to stand up for themselves, and do things, even if they are apparently anxious to do so, on their own.
- Opportunities to enhance self-esteem and self-awareness, leading to an enhanced sense of self.
- Opportunities to make them aware of their talents and interests, so that the talents can be nurtured.
- Encourage HSC uniqueness, and when the children are appreciated they will 'fly'.

- Understand, accept and accommodate their needs, including their need to be alone. Do not stress the HS because in the end they will relate to others better, and function better.
- More time is needed for discipline, and different, softer methods are needed.
- The illustrated storybook could be a useful tool for teachers to facilitate awareness of HS and could be valuable for parents and peers to create awareness of HS.
- The illustrated storybook could be a useful tool for the HSC to facilitate identification with being HS, and can become more self aware.

## **6. SUMMARY STATEMENT**

The researcher, a teacher of children with barriers to learning, a published author of children's books, a student in Gestalt play therapy and an HSP herself, has found that symptoms of HS are often not understood by parents, therapists, teachers and the HSC themselves. The HS symptoms of sensory over-arousal are often misdiagnosed, misunderstood and misinterpreted as ADD/ADHD or barriers to learning, and children are being incorrectly labelled as passive, stubborn or sickly. The implication is that negative labelling of HS results in their feeling of being 'different' (Aron, 2002:141; Goldberg, 2005b:1) or 'flawed' (Aron, 2002:4). The researcher responded to this problem, as she herself has always felt 'different and flawed' (Aron, 2002:4). However, after reading Elaine Aron's book on the highly sensitive person, the researcher has gained deeper self-awareness, and has realised that a different nervous system was the reason for her feeling 'flawed' (Aron, 2002:4), and that sensory over-arousal was the reason for many of her difficulties. Awareness of HS has cleared up many misconceptions for her, and she has been able to reframe it into something positive, because it is used as a tool in the therapy room. If teachers, were aware of HS, and were able to understand the reasons for the children's behaviour, then these children could be managed and supported from an early age, and would become more confident, successful, and better able to become pioneers in their chosen field. In addition there are many positive aspects to HS and an early intervention at home and school would allow the HSCs to have good childhoods where they are supported and encouraged. If their childhood experiences are adverse, they are at risk for mental health issues such as depression and anxiety. The recommendations are to identify, support, manage, encourage and empower the HSC so that they can reach their full

potential. An illustrated storybook was specially created for this research project to become a tool for this purpose. An interesting paradox that captured the researcher's attention was that a difficult childhood could nurture the creative genius and the eminent figure; this has important implications, because the research was done in an environment that is difficult for most of the children in it.

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## SECTION D: ADDENDA

### Addendum 1: guidelines for the Journal of Applied Developmental Psychology



## JOURNAL OF APPLIED DEVELOPMENTAL PSYCHOLOGY

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#### TABLE OF CONTENTS

•	<b>Description</b>	<b>p.1</b>
•	<b>Impact Factor</b>	<b>p.1</b>
•	<b>Abstracting and Indexing</b>	<b>p.1</b>
•	<b>Editorial Board</b>	<b>p.1</b>
•	<b>Guide for Authors</b>	<b>p.3</b>



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Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the *Publication Manual of the American Psychological Association*, Sixth Edition, ISBN 978-1-4338-0561-5, copies of which may be ordered from <http://www.apa.org/books/4200066.html> or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3 Henrietta Street, London, WC3C 8LU, UK. Details concerning this referencing style can also be found at <http://linguistics.byu.edu/faculty/henrichsen/apa/apa01.html>

##### *Web references*

As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

##### *References in a special issue*

Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

#### *Reference Style*

**List:** References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters "a", "b", "c", etc., placed after the year of publication.

higher) available free from <http://get.adobe.com/reader>. Instructions on how to annotate PDF files will accompany the proofs (also given online). The exact system requirements are given at the Adobe site: <http://www.adobe.com/products/reader/tech-specs.html>.

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## Addendum 2: Sampling criteria for highly sensitive children

About 1 in 5 children in your class are born highly sensitive.

To be highly sensitive means that they take in more sensory information and they process this information more thoroughly, making them slower to act and causes quicker overstimulation and over-arousal.

I need six boys and six girls aged between six and eleven years to carry out my research.

They are often viewed as

Shy	introverted	emotional	neurotic
depressive	negative	timid	low sensory threshold
fussy	mentally ill	low self esteem	different
weak	passive	flawed	stubborn
sickly			

But they are also

creative	exceptional	gifted	conscientious
reflective	intuitive	empathetic	perfectionist
rich inner life	visionary	pioneer	

Some struggle with

ADD	ADHD	Barriers to learning
-----	------	----------------------

### **Addendum 3: Focus group interview schedule**

1. Where you aware of High sensitivity in the middle childhood?
2. What makes these children stand out for you?
3. Do they show 'different' or 'flawed' behaviour in the class or the playground?
  - a) Educational
  - b) Social
  - c) Emotional
  - d) Physical
4. What is the child's attitude towards being 'different' or 'flawed'?
5. Are they aware of their special qualities and able to nurture their gifts?
6. Have you noticed that they struggle with sensory overstimulation,
  - a) Explain?
  - b) What strategies do they use to cope with overstimulation?
7. How do you think you will act towards the highly sensitive child now that you understand them better?
8. What are the advantages and the disadvantages of using a book to create awareness of HS in the middle childhood?



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©Written and illustrated by Lisa Durbach

## Addendum 5: The highly sensitive child interview schedule

**Adapted from Aron's highly sensitive child: A parent Questionnaire (Aron, 2002:xvii) and [www.hsperson.com](http://www.hsperson.com)**

Please answer each question as best you can. Answer **TRUE** if it is mostly true of you, or was **TRUE** in the past.

Answer **FALSE** if it has not been very true of you, or was never true.

1.	I get a fright easily.	TRUE	FALSE	N.SURE
2.	I don't like scratchy clothes, seams in socks, or labels against my skin.	TRUE	FALSE	N.SURE
3.	I don't enjoy big surprises.	TRUE	FALSE	N.SURE
4.	I learn better from a gentle talk, than a strong punishment.	TRUE	FALSE	N.SURE
5.	I seem to know what others are thinking.	TRUE	FALSE	N.SURE
6.	I use big words for my age.	TRUE	FALSE	N.SURE
7.	I notice the smallest strange smells.	TRUE	FALSE	N.SURE
8.	I have a clever sense of humor.	TRUE	FALSE	N.SURE
9.	I know things without knowing how I know them.	TRUE	FALSE	N.SURE
10.	It is hard for me get to sleep after an exciting day.	TRUE	FALSE	N.SURE
11.	I don't like big changes.	TRUE	FALSE	N.SURE
12.	I want to change clothes if they are wet or sandy.	TRUE	FALSE	N.SURE
13.	I ask lots of questions.	TRUE	FALSE	N.SURE
14.	I like things to be perfect.	TRUE	FALSE	N.SURE
15.	I notice if others are sad or worried.	TRUE	FALSE	N.SURE
16.	I would rather play quietly.	TRUE	FALSE	N.SURE
17.	I ask deep thoughtful questions.	TRUE	FALSE	N.SURE
18.	I notice pain on my body.	TRUE	FALSE	N.SURE
19.	I don't like noisy places.	TRUE	FALSE	N.SURE
20.	I notice if something has been moved, or if a person has changed how they look.	TRUE	FALSE	N.SURE
21.	I make sure that it is safe before climbing high.	TRUE	FALSE	N.SURE
22.	I work best when others are not watching me.	TRUE	FALSE	N.SURE
23.	I feel my emotions deeply.	TRUE	FALSE	N.SURE
<b>Scoring</b> If you answered TRUE to thirteen or more of the questions, you are probably highly sensitive. But no psychological test is so accurate that you should base how you treat yourself. If only one or two questions are true of you, but they are extremely true, you might also be able to call yourself highly sensitive.				
24.	I feel different.	TRUE	FALSE	N.SURE
26.	I know that I will change the world with my talents.	TRUE	FALSE	N.SURE
27.	I cannot do what others can do easily.	TRUE	FALSE	N.SURE
28.	Do you think that you are highly sensitive?	YES	NO	N.SURE

## **Addendum 6: Consent forms for the parents**

### **NORTH WEST UNIVERSITY PARENTAL/GUARDIAN CONSENT TO PARTICIPATE IN RESEARCH**

---

Title: The use of an interactive story to deal with high sensitivity in middle childhood

Your child/ward has been chosen to participate in Lisa-Mandi Durbach's research, so that she can get her M. Psych in Play Therapy from the University of the North West.

The teachers chose your child/ward because they think that your child might be highly sensitive. These children are often shy, careful, creative, imaginative, and caring.

#### **PURPOSE OF THE STUDY**

The researcher wants to explore the perceptions of highly sensitive children in the middle childhood.

#### **1. PROCEDURES**

If you choose to let your child/ward participate in my research:

- I plan to read a picture book to your child/ward about a child who is highly sensitive.
- After reading the book to your child/ward, I will ask them to answer questions with yes and no answers, to find out if they are aware of high sensitivity in themselves.
- The session will take about 45 minutes, and it will take place in my office, during school hours, at a time that is convenient for your child/ward and the teachers.

#### **2. POTENTIAL RISKS AND DISCOMFORTS**

I do not think that it will be a bad experience for your child/ward, and he/she can also choose to participate. He/she can leave whenever they want, and they will not get into trouble. This is not for school marks.

I am also the school's counsellor, so if your child/ward is upset by the experience, I will let you and the school know, and I will counsel them, or arrange for another counsellor free of charge.

#### **3. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

The information that I get on high sensitivity will help parents, teachers, and other professional to deal with other highly sensitive children, because there is very little information on highly sensitive children, and as a result they are being misunderstood and misdiagnosed.

#### **4. PAYMENT FOR PARTICIPATION**

No one will be paid for this, and it will not cost you anything.

#### **5. CONFIDENTIALITY**

The session will be recorded onto DVD, but the information that I get will be confidential. The information will be locked in my office at home. No one will be able to identify your child/ward in my results. I will be able to tell the parent/guardian about my results, when the research is finished.

#### **6. PARTICIPATION AND WITHDRAWAL**

If you decide that you do not want your child/ward to participate in this study, you can withdraw your

child/ward at any time without any problems. If your child/ward chooses not to answer my questions, he/she can still participate. The researcher can also withdraw your child/ward from the research if she feels that she needs to.

## 7. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact

Student: Lisa Durbach: 0842667251

Study Leader: Susanne Jacobs: 0827837474

## 8. RIGHTS OF RESEARCH SUBJECTS

You may withdraw consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have any questions regarding your rights as a research subject, contact Dr Retha Bloem head at the Institute for Child, Youth and Family studies at North West University.

### SIGNATURE OF PARENT OR GUARDIAN

I the (Parent/guardian)\_\_\_\_\_ have [understood the letter/or it has been properly explained/ translated to me]. I will allow my (child/ward) \_\_\_\_\_ to participate in the research.

I was given the opportunity to ask questions telephonically, and these questions were answered to my satisfaction. I hereby consent that my child/ward may participate in this study. I have been given a copy of this form.

\_\_\_\_\_  
Name of parent or guardian

\_\_\_\_\_  
Signature of parent or guardian

\_\_\_\_\_  
Date

### SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to \_\_\_\_\_ [name of the subject/participant] and/or [his/her] representative \_\_\_\_\_ [name of the representative]. [He/she] was encouraged and given ample time to ask me any questions. This conversation was conducted in English and this conversation was translated into \_\_\_\_\_ by \_\_\_\_\_].

\_\_\_\_\_  
Name of investigator

\_\_\_\_\_  
Signature of Investigator

\_\_\_\_\_  
Date

## Addendum 7: Assent forms for the Child

### NORTH WEST UNIVERSITY CHILD CONSENT TO PARTICIPATE IN RESEARCH

---

Title: The use of an interactive story to deal with high sensitivity in middle childhood

**Aim and purpose:** The researcher wants to explore the perceptions of highly sensitive children in the middle childhood.

You have been chosen to help me with my research, because the teachers think that you might be highly sensitive.

About 1 in 5 children are born highly sensitive. To be highly sensitive means that you can hear, see, smell, taste, feel and sense more than others. You think about information more carefully, and this makes you slower to try new things. You can also be more emotional than other children. Many are shy, careful, creative, imaginative, intuitive and caring.

If you choose to participate with my research:

9. I plan to read a picture book to you about a child who is highly sensitive.
10. After reading the book to you, I will ask you to answer questions with yes and no answers, to find out if you are aware of high sensitivity in yourself.
11. The session will take about 45 minutes, and it will take place in my office, during school hours.

I do not believe that it will be a bad experience for you, and there will be no marks given. If you want to leave at any time, they can leave and you will not get into trouble. I am also the school's counsellor so if for any reason you are upset by the experience, I will let your parents and the school know, and I will counsel you, or arrange for another counsellor free of charge.

The session will be recorded, but the information is confidential, and the information will be locked in my office at home. No one will be able to identify you in my results.

I can tell you your parent/ward about my results of the session.

You will not be paid, and I will not be paid also it will not cost you anything to participate.

I need this information so that I can get my M. Psych in play therapy at the University of the North West.

The information that I get on high sensitivity will help parents, teachers, other professionals about how to work with these other highly sensitive children, because there is very little information on highly sensitive children and as a result they are being misunderstood and misdiagnosed.

I \_\_\_\_\_ have understood the letter/or it has been properly explained /translated to me. I will participate in the research.

Signature of the child

\_\_\_\_\_  
Signature of the parent/guardian

\_\_\_\_\_  
Date \_\_\_\_\_

## **Addendum 8: Consent forms for the school representative**

### **NORTH WEST UNIVERSITY SCHOOL CONSENT FOR LEARNERS TO PARTICIPATE IN RESEARCH**

---

Title: The use of an interactive story to deal with high sensitivity in the middle childhood.

The school's consent is requested for the highly sensitive middle childhood learners, to participate in a research study to be conducted by Lisa-Mandi Durbach (M. Psych Play Therapy) from the Institute for Child, Youth and Family studies at the North West University. The results of this study will be in part-fulfilment of a dissertation for the completion of the masters degree in Health Sciences, direction Play Therapy. These learners have been selected as a possible participant in this study because they attend [REDACTED] School in Pretoria, and their teacher has identified them as a highly sensitive child, in the middle childhood. The learner will be selected for this study so that that he/she can provide his/her personal perception of high sensitivity.

#### **PURPOSE OF THE STUDY**

The aim is to explore the perceptions of highly sensitive children in the middle childhood.

#### **12. PROCEDURES**

If the learner volunteers to participate in this study, he/she would be asked to do the following:

- I will read a storybook to the learner in a one-on-one session. The storybook will introduce them to the basic facts of high sensitivity.
- The learner will answer a questionnaire in a one-on-one session, directly after reading the storybook; in order to find out how aware children in the middle childhood are of high sensitivity. The learner is an important part of this information-gathering process, as the researcher is attempting to understand high sensitivity from a child's point of view.
- The duration of each session will be about 45 minutes.
- The interviews will take place at [REDACTED] school, at a time that is convenient for the learner and their teachers. The reading period plus break have been identified as a possible period to conduct the research.
- All questionnaires will be stored in a safe place, only accessible to the researcher.
- Feedback will be provided to the learner and their parent if necessary, and if requested after the research has been completed and evaluated.

#### **13. POTENTIAL RISKS AND DISCOMFORTS**

The nature of this study may require the learner to participate in activities which may involve potential risks and discomfort, since the highly sensitive are susceptible to stress and anxiety. If they experience any signs of discomfort, or emotional distress while reading the story or during the interview, I will stop the process immediately, the school and the parents will be informed. Additionally if they experiences anxiety concerning awareness of high sensitivity, I will be available by appointment, or a referral will be made to [REDACTED], the school's former educational psychologist to address the issue, at no cost to the school, parent or the learner. The learner may withdraw from this study at any time, if he/she chooses.

#### **14. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

Awareness of high sensitivity is reported to benefit the learner in middle childhood because it strengthens their sense of self. The general benefit of this study is the increased knowledge of about how to support

and understand high sensitivity in children. This research also has worldwide importance, since research into high sensitivity in the middle childhood is very limited. Additionally this research will provide a basis for future studies on the highly sensitive child. It is the wish of the researcher to gain a better understanding, and awareness of high sensitivity in middle childhood, in order to reduce negative labelling and misdiagnosis in the highly sensitive. The study can be significant in that it may provide some guidance and advice for highly sensitive children, parents, practitioners and teachers on how to reframe and manage high sensitivity. The storybook may become a valuable technique to create awareness of high sensitivity, in the middle childhood.

## **15. PAYMENT FOR PARTICIPATION**

The school, the child and the parent will not be paid for their participation in this study, nor will any fees be charged by the researcher.

## **16. CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with the learner will remain confidential, and will be disclosed only with the parent's permission or as required by law. Confidentiality will be maintained by means of using a pseudo-name for the learner, for the duration of the study. This will ensure that the learner cannot be identified. The data will be kept confidential and will be labelled with pseudo-codes and stored in a locked cabinet in the researcher's private office (Only the researcher will have access to this cabinet). All material will be published in the research report at North West University. Before publication, a feedback session with the learner and their parent (if necessary) will be conducted to allow them to report on their experience of participating in this research. Feedback to the school will be provided if necessary.

## **17. PARTICIPATION AND WITHDRAWAL**

The learner can choose whether or not to participate in this study. The learner may withdraw at any time without consequences of any kind. The learner may also decline to answer any particular question at his/her own discretion, and still remain in the study. The investigator may withdraw the learner from this research if circumstances arise which warrant doing so.

## **18. IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about the research, please feel free to contact

Student: Lisa Durbach: 0842667251

Study Leader: Susanne Jacobs: 0827837474

## **19. RIGHTS OF RESEARCH SUBJECTS**

The learner may withdraw his/her consent at any time and discontinue participation without penalty. The learner is not waiving any legal claims, rights or remedies because of his/her participation in this research study. If the learner has any questions regarding his/her rights as a research subject, contact Dr Retha Bloem head at the Institute for Child, Youth and Family studies at North West University.

<b>SIGNATURE OF THE SCHOOL REPRESENTATIVE</b>
---

The information above was described to me by Lisa-Mandi Durbach in English, and I am in command of this language. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent that the participant may participate in this study. I have been given a copy of this form.



Name of School representative

\_\_\_\_\_  
Signature of School Representative

\_\_\_\_\_  
Date

<b>SIGNATURE OF INVESTIGATOR</b>
----------------------------------

I declare that I explained the information given in this document to \_\_\_\_\_ *[name of the school representative]*. He was encouraged and given ample time to ask me any questions. This conversation was conducted in English and he is in command of this language.

\_\_\_\_\_  
Name of Investigator

\_\_\_\_\_  
Signature of Investigator

\_\_\_\_\_  
Date

**NORTH WEST UNIVERSITY**  
**SCHOOL CONSENT FOR TEACHERS TO PARTICIPATE IN RESEARCH**

---

Title: The use of an interactive story to deal with high sensitivity in the middle childhood.

The school's consent is requested for the teachers to participate in a research study to be conducted by Lisa-Mandi Durbach (M. Psych Play Therapy) from the Institute for Child, Youth and Family studies at the North West University. The results of this study will be in part-fulfillment of a dissertation for the completion of the masters degree in Health Sciences, direction Play Therapy. These teachers were selected as a possible participant in this study because they teach children in the middle childhood at [REDACTED] School in Pretoria. They will be selected for this study so that they can provide their opinion of how high sensitivity is displayed in children in the middle childhood.

## **PURPOSE OF THE STUDY**

The aim is to explore how aware children in the middle childhood are of high sensitivity.

## **20. PROCEDURES**

If they volunteer to participate in this study, they would be asked to do the following:

- Attend a focus group at a time that is convenient to discuss High sensitivity in children of the middle childhood.
- The group will last approximately 90 minutes.

## **21. POTENTIAL RISKS AND DISCOMFORTS**

I do not foresee any risks or discomfort. If they experience any signs of discomfort or emotional distress they may withdraw from this study at any time.

I will be available by appointment, or a referral will be made to [REDACTED], the school's former educational psychologist to address the issue, at no cost to them.

## **22. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

The general benefit of this study is the increased knowledge of about how to support and understand high sensitivity in children, this research also has worldwide importance, since research into high sensitivity in middle childhood is very limited. Additionally this research will provide a basis for future studies on the highly sensitive child. It is the wish of the researcher to gain a better understanding and awareness of high sensitivity in middle childhood, in order to reduce negative labelling and misdiagnosis in the highly sensitive. The study can be significant in that it may provide some guidance and advice for the HSC, parents, practitioner and teachers on how to reframe and manage high sensitivity.

## **23. PAYMENT FOR PARTICIPATION**

They will not be paid for your participation in this study, nor will any fees be charged by the researcher.

## **24. CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with them will remain confidential and will be disclosed only with their permission or as required by law. Confidentiality will be maintained by means of using a pseudo-name for you for the duration of the study. This will ensure that they cannot be identified. The data will be kept confidential and will be labelled with pseudo-codes and stored in a locked cabinet in the researcher's private office (The researcher will only have

access to this cabinet). All material will be published in the research report at North West University. Before publication, a feedback session with you will be conducted to allow you to report on your experience of participating in this research. Feedback to the school will be provided if necessary.

## **25. PARTICIPATION AND WITHDRAWAL**

They can choose whether or not to participate in this study. They may withdraw at any time without consequences of any kind. They may also decline to answer any particular question at their own discretion, and still remain in the study. The investigator may withdraw them from this research if circumstances arise which warrant doing so.

## **26. IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about the research, please feel free to contact

Student: Lisa Durbach: 0842667251

Study Leader: Susanne Jacobs: 0827837474

## **27. RIGHTS OF RESEARCH SUBJECTS**

They may withdraw consent at any time and discontinue participation without penalty. They are not waiving any legal claims, rights or remedies because of your participation in this research study. If they have any questions regarding their rights as a research subject, contact Dr Retha Bloem head at the Institute for Child, Youth and Family studies at North West University.

### **SIGNATURE OF SCHOOL REPRESENTATIVE**

The information above was described to me by Lisa-Mandi Durbach in English and I am in command of this language. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent that the participants may participate in this study, I have been given a copy of this form.

\_\_\_\_\_  
**Name of school representative**

\_\_\_\_\_  
**Signature of school representative**

\_\_\_\_\_  
**Date**

### **SIGNATURE OF INVESTIGATOR**

I declare that I explained the information given in this document to [*name of the school representative*]. He was encouraged and given ample time to ask me any questions. This conversation was conducted in English and the school representative is in command of this language.

\_\_\_\_\_  
**Signature of Investigator**

\_\_\_\_\_  
**Date**

## Addendum 9: Permission letter from the Gauteng department of education



**education**  
Department of Education  
GAUTENG PROVINCE

For administrative use:  
Reference no. D2012/69

### GDE RESEARCH APPROVAL LETTER

Date:	1 June 2011
Name of Researcher:	Durbach L.M.
Address of Researcher:	171 River Valley Road Lynnwood Glen Pretoria 0081
Telephone Number:	012 348 4399 / 084 266 7251
Fax Number:	012 541 0399
Email address:	durbachlisa@yahoo.com
Research Topic:	The use of an interactive story to deal with high sensitivity in middle childhood
Number and type of schools:	ONE Primary School
District/s/HO	Tshwane South

#### **Re: Approval in Respect of Request to Conduct Research**

This letter serves to indicate that approval is hereby granted to the above mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

**The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:**

1. The District/Head Office Senior Manager's concerned must be presented with a copy of this letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.
2. The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.
3. A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.

**Making education a societal priority**

#### **Office of the Director: Knowledge Management and Research**

9<sup>th</sup> Floor, 111 Commissioner Street, Johannesburg, 2001  
P.O. Box 7740, Johannesburg, 2000 Tel: (011) 355 3516  
Email: David.Makheko@gauteng.gov.za  
Website: www.education.gpe.gov.za

## Addendum 10: Permission letter from Tshwane South district



Department: Education  
**GAUTENG PROVINCE**

Fax: 2- email: 0855 674 276  
E-mail: [Sefo.Nwotwe@education.gov.za](mailto:Sefo.Nwotwe@education.gov.za)  
08 July 2011

Ms Lisa Durbach  
171 River Valley Rd  
Lynwood Glen  
Pretoria  
0081  
012 348 4399 (T); 012 541 6399 (F); 084 266 7251 (Mobile)

Co: The Principal and SGB

Dear Sir:

### **PERMISSION TO CONDUCT RESEARCH: LISA DURBACH**

Your research application has been approved by Head Office. The full title of your Research: "The use of an interactive story to deal with high sensitivity in the middle childhood". You are expected to adhere strictly to the conditions given by Head Office. You are also advised to communicate with the school principal/s and/or SGB/s regarding your research and time schedule.

Our commitment of support may be rescinded if any form of irregularity/ no compliance to the terms in this letter or any other departmental directive/ if any risk to any person/s or property or our reputation is realised, observed or reported.

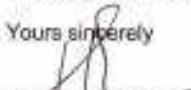
#### **Terms and conditions**

1. The safety of all the learners and staff at the school must be ensured at all times.
2. All safety precautions must be taken by the researcher and the school. The Department of Education may not be held accountable for any injury or damage to property or any person/s resulting from this process. The school/s must ensure that sound measures are put in place to protect the wellness of the researcher and his/ her property.

**NB** Kindly submit your report including findings and recommendations to the District at least two weeks after conclusion of the research. You may be requested to participate in the Department of Education's mini-research conference to discuss your findings and recommendations with departmental officials and other researchers.

The District wishes you well,

Yours sincerely

  
Mrs. H.E. Kekana  
Director: Tshwane South District

11/07/2011

1/1

**Making education a societal priority**

**Office of the District Director: Tshwane South District**  
(Mamelodi/Eersterust/ Pretoria East/Pretoria South/Atteridgeville/Laudium)  
265 Pretorius Street, Pretoria 0001  
Private Bag X 27625, Sunnyside, 1322. Tel: (012) 401 6317. Fax: (012) 401 6318  
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## **Addendum 11: Consent form for the teachers**

### **NORTH WEST UNIVERSITY TEACHER CONSENT TO PARTICIPATE IN RESEARCH**

Title: The use of an interactive story to deal with high sensitivity in the child in the middle childhood

You are asked to participate in a research study to be conducted by Lisa-Mandi Durbach (M. Psych. Play Therapy) from the Institute for Child, Youth and Family studies at the North West University. The results of this study will be in part-fulfilment of a dissertation for the completion of the masters degree in Health Sciences, direction Play Therapy. You were selected as a possible participant in this study because you teach children in the middle childhood at [REDACTED] School in Pretoria. You will be selected for this study so that you can provide your perception of HS children in the middle childhood, to find out how high sensitivity is displayed in learners of the middle childhood.

#### **PURPOSE OF THE STUDY**

The aim is to explore the perceptions of HS children in the middle childhood.

#### **PROCEDURES**

If you volunteer to participate in this study, you would be asked to do the following:

Attend a focus group at a time that is convenient, to discuss high sensitivity in children of the middle childhood.

The group will last approximately 90 minutes.

#### **POTENTIAL RISKS AND DISCOMFORTS**

I do not foresee any risks or discomfort. If you experience any signs of discomfort or emotional distress you may withdraw from this study at any time. I will be available by appointment, or a referral will be made to [REDACTED] an educational psychologist to address the issue, at no cost to you.

#### **POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

The general benefit of this study is the increased knowledge of about how to support and understand high sensitivity in children, this research also has worldwide importance, since research into high sensitivity in middle childhood is very limited. Additionally this research will provide a basis for future studies on the highly sensitive child. It is the wish of the researcher to gain a better understanding and awareness of high sensitivity in middle childhood, in order to reduce negative labelling and misdiagnosis in the highly sensitive. The study can be significant in that it may provide some guidance and advice for the highly sensitive child, parents, practitioner and teachers on how to reframe and manage high sensitivity.

#### **PAYMENT FOR PARTICIPATION**

You will not be paid for your participation in this study, nor will any fees be charged by the researcher.

#### **CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of using a pseudo-name for you for the duration of the study. This will ensure that you cannot be identified. The data will be kept confidential and will be labelled with pseudo-codes and stored in a locked cabinet in the researcher's private office, (only the researcher will only have access to this cabinet). All material will be published in the research report at North West University. Before publication, a feedback session with you will be conducted to allow you to report on your experience of participating in this research. Feedback to the school will be provided if necessary.

#### **PARTICIPATION AND WITHDRAWAL**

You can choose whether or not to participate in this study. You may withdraw at any time without consequences of any kind. You may also decline to answer any particular question at your own

discretion, and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

#### **IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about the research, please feel free to contact

Student: Lisa Durbach: 0842667251

Study Leader: Susanne Jacobs: 0827837474

#### **RIGHTS OF RESEARCH SUBJECTS**

You may withdraw consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have any questions regarding your rights as a research subject, contact Dr Retha Bloem head at the Institute for Child, Youth and Family studies at North West University.

#### **SIGNATURE OF THE PARTICIPANT**

The information above was described to the participant by Lisa-Mandi Durbach in English and the participant is in command of this language. The participant was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Signature of participant

\_\_\_\_\_  
Date

#### **SIGNATURE OF INVESTIGATOR**

I declare that I explained the information given in this document to

\_\_\_\_\_ [*name of the participant*]. He/she was encouraged and given ample time to ask me any questions. This conversation was conducted in English, and he/she is in command of this language.

\_\_\_\_\_  
Name of investigator

\_\_\_\_\_  
Signature of Investigator

\_\_\_\_\_  
Date

## Addendum 12: Results from the HSC interview schedule

Results from the HSC interview schedule From youngest to oldest	Child A (Girl 6y1m)	Child B (Boy 6y10)	Child C (Boy 7y1m)	Child D (Girl 7y8m)	Child E (Boy 8y5m)	Child F (Girl 9y4m)	Child G (Boy 9y4m)	Child H (Girl 9y7m)	Child I (Girl 9y10m)	Child J (Boy 9y11m)	Child K (Girl 10y0m)	Child L (Girl 10y8m)	Child M (Boy 10y9m)	Child N (Girl 10y10m)	Child O (Boy 11y1m)	Child P (Girl 11y6m)
I get a fright easily.	T	T	T	T	F	T	F	T	F	F	T	T	F	T	F	T
I don't like scratchy clothes, seams in socks, or labels against my skin.	T	F	T	T	T	T	T	T	T	F	T	T	F	T	F	T
I don't enjoy big surprises.	N S	T	F	F	F	F	F	F	F	F	F	F	F	F	T	T
I learn better from a gentle talk, than a strong punishment.	T	F	T	T	F	T	T	T	T	T	T	T	T	T	T	T
I seem to know what others are thinking.	F	T	N S	T	F	T	F	T	T	F	T	F	T	F	F	T
I use big words for my age.	F	T	T	T	F	F	F	F	F	F	F	F	F	F	F	T
I notice the smallest strange smells.	T	T	T	F	T	F	T	F	T	T	T	N S	F	T	T	T
I have a clever sense of humor.	T	T	T	T	T	T	T	T	T	T	F	T	T	T	T	T
I know things without knowing how I know them.	F	T	T	T	T	T	T	F	T	T	T	T	T	T	T	T
It is hard for me get to sleep after an exciting day.	T	T	T	T	F	T	T	F	T	T	T	T	T	T	T	T
I don't like big changes.	T	T	T	T	T	F	T	F	F	F	F	N S	F	T	T	T
I want to change clothes if they are wet or sandy.	T	F	F	T	T	T	T	T	T	T	T	T	T	T	F	T
I ask lots of questions.	T	T	F	T	T	T	T	T	F	T	F	T	T	T	T	T
I like things to be perfect.	N S	T	T	T	T	T	T	T	F	T	T	F	T	F	T	T
I notice if others are sad or worried.	F	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
I would rather play quietly.	T	T	T	T	F	F	T	F	T	F	N S	T	F	T	F	T
I ask deep thoughtful questions.	F	T	F	T	N S	T	T	T	T	T	F	T	T	T	T	T
I notice pain on my body.	F	T	T	T	T	T	T	T	T	F	T	T	T	T	T	T



I don't like noisy places.	T	T	T	T	T	T	T	T	T	F	T	T	T	T	T	T
I notice if something has been moved, or if a person has changed how they look.	F	T	F	T	F	T	T	F	T	T	T	T	T	T	T	T
I make sure that it is safe before climbing high.	T	T	F	T	F	T	T	T	T	T	T	T	T	T	T	T
I work best when others are not watching me.	T	T	T	T	F	T	T	T	F	T	T	F	T	F	T	T
I feel my emotions deeply.	T	T	T	T	T	T	T	T	T	F	T	T	T	T	T	T
	14	19	16	21	13	18	20	15	16	13	16	16	16	18	17	23
	T	T	F	T	F	F	T	T	F	T	T	F	T	T	T	T
I know that I will change the world with my talents.	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
I cannot do what others can do easily.	T	T	F	T	T	T	F	F	F	F	T	T	T	T	F	T
	3	3	1	3	2	2	2	2	1	2	3	2	3	3	2	3
Identification with being Highly Sensitive	O	O	N O	O	O	O	O	O	O	O	O	O	O	N O	O	O

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