The Learn to Play Program in Specialist Schools

by

Chloe Wadley

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I am the author of the thesis entitled 'The Learn to Play Program in Specialist Schools'

submitted for the degree of Doctor of Philosophy (Health and Social Development)

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# Contents

List of tables .......................................................................................................................................... IX
List of figures ..................................................................................................................................... XIII
Acknowledgements .......................................................................................................................... XV
Abstract ............................................................................................................................................. XVII

Chapter One ............................................................................................................................................ 1
INTRODUCTION .................................................................................................................................. 1
Framework for the Study .................................................................................................................... 4
Thesis Structure .................................................................................................................................. 8

CHAPTER TWO .................................................................................................................................. 12
LITERATURE REVIEW ..................................................................................................................... 12
Play ................................................................................................................................................... 13
Historical views of pretend play. .................................................................................................. 17
The Impact of Pretend Play on Key Areas of Typical Childhood Development .............................. 19
Pretend play and language. ........................................................................................................... 21
Pretend play and social competence. ............................................................................................ 24
Pretend Play and its Importance in Childhood Development and Learning .................................... 27
The relationship between pretend play and learning. .................................................................... 27
Play and cognition/problem-solving. ............................................................................................ 27
Pretend play and literacy development. ........................................................................................ 30
Play and narrative competence. .................................................................................................... 33
Pretend Play in Children with Developmental Delay and Disability ............................................... 36
Pretend Play and Autism Spectrum Disorders (ASD). ................................................................. 39
The Benefits of Developing Pretend Play Skills in Children in Preparation for School ............... 41
Self-regulation .................................................................................................................................. 44
International pre-schools .............................................................................................................. 45
Australian pre-schools framework ................................................................................................. 47

Play-based Curriculums and Programs within Specialist School Settings and Mainstream .......... 48
Play-based Curriculum within Specialist School Settings .............................................................. 48
Australian context .......................................................................................................................... 48
Play-based Curriculums within Mainstream Settings ..................................................................... 51
International Context ...................................................................................................................... 51
Play based curriculum within the Australian context ..................................................................... 55
Summary ........................................................................................................................................... 56

The Role of Teachers and Therapists in Supporting Play-based Curriculums within Classroom Settings ............................................................................................................ 57
Inclusion criteria ........................................................................................................................ 188
Exclusion criteria ......................................................................................................................... 189
Instruments ...................................................................................................................................... 189
Questionnaire .................................................................................................................................. 189
Focus group .................................................................................................................................... 191
Strategic plans ............................................................................................................................... 191
Procedure ........................................................................................................................................ 191
Ethical approval ............................................................................................................................. 191
Recruitment .................................................................................................................................... 192
Data collection ............................................................................................................................... 192
Data analysis .................................................................................................................................. 193
Quantitative Data ............................................................................................................................ 194
Qualitative Data ............................................................................................................................. 203
Schools create successful programs ............................................................................................. 204
Learn to Play has created shifts in the children’s development .................................................... 210
Assessing pretend play is really important ..................................................................................... 212
Structuring Learn to Play to allow for the challenge of play with children with developmental delay and disability .................................................................................................................. 214
Parents must value play .................................................................................................................. 220
CHAPTER EIGHT ............................................................................................................................. 224
STUDY THREE DISCUSSION ......................................................................................................... 224
Structural Dimension (Resources and Structure) ............................................................................ 227
Operational (Processes, Activities and Behaviours) ....................................................................... 229
Strategic (Policies and Management Practices) .............................................................................. 230
Systemic Dimension (External Environment) ................................................................................ 235
Needs .............................................................................................................................................. 237
Constraints ....................................................................................................................................... 237
Specific Dimension (Results and Impacts) ..................................................................................... 238
CHAPTER NINE ................................................................................................................................ 246
COMMONALITIES AND DIFFERENCES BETWEEN SCHOOLS ................................................... 246
Analysis with the Model of the Dimensions of a Program Framework ......................................... 247
The PEOP Model ............................................................................................................................ 261
Structural Dimension ..................................................................................................................... 271
Play materials ................................................................................................................................. 275
Financial support ............................................................................................................................ 275
Operational (Processes, Activities and Behaviours) ....................................................................... 276
Strategic (Policies and Management Practices) .............................................................................. 278
Systemic Dimension (External Environment) ................................................................................ 280
Implementing Learn to Play based on the Needs of the Program .................................................. 282
Constraints ...................................................................................................................................................285
Specific Dimension (Results and Impacts) ..............................................................................................287
CHAPTER TEN ...............................................................................................................................................291
Recommendations and CONCLUSION ........................................................................................................291
  Recommendations for the sustainability of a Learn to Play Program within a Special/SDS school. ..........295
Key Factors for the Sustainability of the Learn to Play Program with a Special or SDS school... 302
  Using assessment as an outcome measure. ..............................................................................................302
  Parent/guardian education throughout the program. ..............................................................................304
  Valued by management, supported by staff. ...........................................................................................305
  Training for staff. .................................................................................................................................306
  Adaptability and sustainability across different settings. ................................................................. 309
**LIST OF TABLES**

<table>
<thead>
<tr>
<th>Tables</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Overall Mean Ratings for Questionnaire Results (n = 31)………</td>
</tr>
<tr>
<td>3.2</td>
<td>The Importance of Play in Childhood Development: Individual School Results (n=31)…………………………………………………………</td>
</tr>
<tr>
<td>3.3</td>
<td>The Importance of Play for Children with Developmental Delay/Disability: Individual School Results………………………………….</td>
</tr>
<tr>
<td>3.4</td>
<td>The Importance of Play for Children with Developmental Delay/Disability, Variation or equally important compared to Typically Developing Children; Individual School Results…………………………….</td>
</tr>
<tr>
<td>3.5</td>
<td>Schools Currently Running the Learn to Play Program or other Play-based Programs within their Curriculum (n=31)………………………………</td>
</tr>
<tr>
<td>3.6</td>
<td>Preferred Setting for a Learn to Play Program within the School……….</td>
</tr>
<tr>
<td>4.1</td>
<td>Mean Age of Participants at Each School (n = 38)………………….</td>
</tr>
<tr>
<td>4.2</td>
<td>Diagnosis of Participants in Study Two (n=38)…………………..</td>
</tr>
<tr>
<td>4.3</td>
<td>ChIPPA Measures and Descriptions………………………………….</td>
</tr>
<tr>
<td>4.4</td>
<td>Examples of the Comprehension Questions and scoring criteria on the ERRNI assessment: The Fish Story…………………………….</td>
</tr>
<tr>
<td>4.5</td>
<td>SISS-RS Examples from each of the Seven Sub-Domains for the Teacher Form 5-12 years………………………………………………….</td>
</tr>
</tbody>
</table>
4.6 Examples of SDQ Questions and Rating Scales included in the Teacher Questionnaire 4-10-year olds

5.1 Baseline and Follow Up Descriptive Statistics (Including Mean, SD and p Values) for the raw scores of the ChIPPA of Children in the Sample, including Cohen’s d

5.2 Baseline and Follow Up Descriptive Statistics (Including Mean, SD and p Values) of Children in the sample (n=38) with matched data on the baseline and follow up CELF-4 – Raw Scores

5.3 Baseline and Follow Up Descriptive Statistics (Including Mean, SD and p Values) of Children in the sample (n=32) with matched data on the baseline and follow up on the ERRNI

5.4 Baseline and Follow Up Descriptive Statistics (Including Mean, SD and p Values) of Children in the sample (n=33) with matched data on the baseline and follow up SDQ

5.5 Baseline and Follow Up Descriptive Statistics (Including Mean, SD and p Values) of Children in the sample (n=34) with matched data on the baseline and follow up SSIS

5.6 GEE: PEPA Combined (pre) Prediction on ERRNI MLU (post): (n=32)

5.7 GEE: PEPA Combined Raw Score (pre) Prediction of SSIS Total Raw Score (post) (n=26)

5.8 GEE: PEPA Combined Raw Score (pre) Prediction on Recalling Sentences (post) (n=29)

5.9 GEE: PEPA Combined Raw Score (pre) Prediction on SSIS Academic Competence (post) (n=34)
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.10</td>
<td>GEE: NOS Combined (pre) Prediction on ERRNI MLU (post) (n=32)</td>
<td>148</td>
</tr>
<tr>
<td>5.11</td>
<td>GEE: NOS Combined Raw Scores (pre) Prediction on Post SSIS Academic Competence (post) (n=34)</td>
<td>149</td>
</tr>
<tr>
<td>5.12</td>
<td>GEE: NOS Combined Raw Scores (pre) Prediction on SSIS Total Score (post) (n=32)</td>
<td>150</td>
</tr>
<tr>
<td>5.13</td>
<td>GEE: NOS Combined Raw Score (pre) Prediction on Recalling Sentences (post) (n=29)</td>
<td>151</td>
</tr>
<tr>
<td>5.14</td>
<td>Gender differences in Post Raw PEPA Combined Scores: Males (n=21) and Females (n=11) (total n = 32)</td>
<td>152</td>
</tr>
<tr>
<td>7.1</td>
<td>The Importance of Play in Childhood Development and Learning (n=14)</td>
<td>195</td>
</tr>
<tr>
<td>7.2</td>
<td>The Importance of Play in Childhood Development: Individual School Results</td>
<td>196</td>
</tr>
<tr>
<td>7.3</td>
<td>The Importance of Play for Children with Developmental Delay and Disability: Individual School Results</td>
<td>196</td>
</tr>
<tr>
<td>7.4</td>
<td>The Importance of Pretend Play in Language Development</td>
<td>197</td>
</tr>
<tr>
<td>7.5</td>
<td>The Importance of Pretend Play in Social Skill Development</td>
<td>197</td>
</tr>
<tr>
<td>7.6</td>
<td>The Importance of Pretend Play in Cognitive Development</td>
<td>198</td>
</tr>
<tr>
<td>7.7</td>
<td>The Importance of Pretend Play in Relation to Learning in the School Environment</td>
<td>198</td>
</tr>
<tr>
<td>7.8</td>
<td>The Value of a Play-Based Program in a Special/SDS School Setting</td>
<td>199</td>
</tr>
<tr>
<td>Section</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>7.9</td>
<td>The Duration and the Number of Play Sessions Per Week to Implement a Learn to Play Program</td>
<td>200</td>
</tr>
<tr>
<td>7.10</td>
<td>The Setting in Which the Play Sessions Were Run</td>
<td>200</td>
</tr>
<tr>
<td>7.11</td>
<td>The Challenges for Participants in Matching Play Activities to the Developmental Level of Children</td>
<td>201</td>
</tr>
<tr>
<td>7.12</td>
<td>Comfortability of Participants in Assessing a Child’s Current Pretend Play Skills</td>
<td>201</td>
</tr>
<tr>
<td>7.13</td>
<td>How Well the Learn to Play Program was Received by Parents</td>
<td>202</td>
</tr>
<tr>
<td>7.14</td>
<td>Open Ended Questions on the Participant Questionnaires</td>
<td>203</td>
</tr>
<tr>
<td>8.1</td>
<td>The Presentation of the Gervais Framework in Figure 8.1 and 8.2</td>
<td>225</td>
</tr>
<tr>
<td>9.1</td>
<td>The Presentation of the Gervais Framework in Figures 9.1.1 to 9.4.2</td>
<td>248</td>
</tr>
<tr>
<td>10.1</td>
<td>The Presentation of the Gervais Framework in Figures 10.1.1 and 10.1.2</td>
<td>297</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figures</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>The Layout of the Thesis</td>
<td>11</td>
</tr>
<tr>
<td>2.1</td>
<td>The Main Components of the Gervais Framework</td>
<td>65</td>
</tr>
<tr>
<td>3.1</td>
<td>The Model of the Dimensions of a Program: Study One Findings</td>
<td>97</td>
</tr>
<tr>
<td>5.1</td>
<td>The Model of the Dimensions of a Program: Study Two Findings</td>
<td>156</td>
</tr>
<tr>
<td>8.1</td>
<td>The Model of the Dimensions of a Program: Study Three Findings</td>
<td>226</td>
</tr>
<tr>
<td>8.2</td>
<td>The Model of the Dimensions of a Program: Study Three Findings</td>
<td>234</td>
</tr>
<tr>
<td>9.1.1</td>
<td>The Model of the Dimensions of a Program: Metro One</td>
<td>249</td>
</tr>
<tr>
<td>9.1.2</td>
<td>The Model of the Dimensions of a Program: Metro One</td>
<td>250</td>
</tr>
<tr>
<td>9.2.1</td>
<td>The Model of the Dimensions of a Program: Metro Two</td>
<td>252</td>
</tr>
<tr>
<td>9.2.2</td>
<td>The Model of the Dimensions of a Program: Metro Two</td>
<td>253</td>
</tr>
<tr>
<td>9.3.1</td>
<td>The Model of the Dimensions of a Program: Regional One</td>
<td>255</td>
</tr>
<tr>
<td>9.3.2</td>
<td>The Model of the Dimensions of a Program: Regional One</td>
<td>256</td>
</tr>
<tr>
<td>9.4.1</td>
<td>The Model of the Dimensions of a Program: Regional Two</td>
<td>258</td>
</tr>
<tr>
<td>9.4.2</td>
<td>The Model of the Dimensions of a Program: Regional Two</td>
<td>259</td>
</tr>
<tr>
<td>Section</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>9.5</td>
<td>The PEOP Model: Metro One</td>
<td>262</td>
</tr>
<tr>
<td>9.6</td>
<td>The PEOP Model Metro Two</td>
<td>264</td>
</tr>
<tr>
<td>9.7</td>
<td>The PEOP Model Regional One</td>
<td>266</td>
</tr>
<tr>
<td>9.8</td>
<td>The PEOP Model Regional Two</td>
<td>268</td>
</tr>
<tr>
<td>10.1.1</td>
<td>The Model of the Dimensions of a Program: Recommended for a sustainable Learn to Play Program</td>
<td>298</td>
</tr>
<tr>
<td>10.1.2</td>
<td>The Model of the Dimensions of a Program: Recommended for a sustainable Learn to Play Program</td>
<td>299</td>
</tr>
<tr>
<td>10.2</td>
<td>Integration between the PEOP Model and the Gervais Framework following the completion of the Learn to Play Program</td>
<td>301</td>
</tr>
</tbody>
</table>
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ABSTRACT

Pretend play has been linked with a number of key areas in childhood development, including language, social skills and cognition (Nicolopoulou, 2010; Whitebread & O’Sullivan, 2002). Children with developmental delay and disability lack the ability to engage in pretend play (Casby, 2003), impacting on their socialisation with peers and participation in childhood occupations such as a player, student and learner (Phelan & Kinsella, 2014). Current literature surrounding pretend play and its link with typical childhood development is vast, however literature on pretend play for children with developmental delay and disability within specialist schools is limited.

The aim of this thesis is to present research into play programs (more specifically, the Learn to Play Program) for children with developmental delay and disability in their first year of school (aged 5-7 years) attending either a special or special development school (SDS) in Victoria, Australia. The Learn to Play Program aims to develop the pretend play skills of children with delayed or non-age appropriate pretend play skills (Stagnitti, 1998), thus enhancing their engagement in childhood occupation. The Person Environment Occupation Performance (PEOP) Framework (Christiansen, Baum, Bass-Haugen & Library, 1995) will be used to shape the findings of this research and the implications of this research on a child’s main occupations as a student, learner and player within a school environment. The Model of the Dimension of a Program (Gervais Framework) (Gervais, 1998) will be used in this research as a model of program evaluation in order to evaluate the effectiveness of a Learn to Play Program in a special/SDS school.

Study One included 31 staff members (integration aides, teachers, therapists and assistant principals) across seven specialist schools in Victoria, Australia. The aims of this study were to investigate staff perceptions on the importance of pretend play for development and learning, any prior experience the school had in play-based programs and the
supports/resources specialist schools would require to implement a play-based program. The findings of this study demonstrated that staff value pretend play in childhood development and learning. Four of the seven schools had experience in running a play-based program. Staff felt challenged in co-playing with children with diverse skills, following a child’s lead in play and finding time within a busy curriculum. Staff stated they would need training to be able to run a play-based program within their curriculum.

Study Two focused on the implementation of a Learn to Play Program across four of the seven specialist schools over a seven-month period for 38 prep students (children in their first year of schooling). Children were assessed at baseline and follow up using the following measures: 1. the Child-Initiated Pretend Play Assessment (ChIPPA) (Stagnitti, 2007) to assess pretend play skills. 2. Clinical Evaluation of Language Fundamentals Fourth Edition (CELF-4) (Semel, 2003) to assess language skills. 3. Expression, Reception, and Recall of Narrative Instrument (ERRNI) (Bishop, 2004) to assess narrative 4. Social Skills Improvement System – Rating Scales (SSIS-RS) (Gresham, Elliott, Vance, & Cook, 2011) to assess social skills and 5. The Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) to assess emotional regulation. A Wilcoxon Signed Ranks Test was used to analyse changes in scores between baseline and follow up. The results showed significant changes in a child’s pretend play, object substitution, expressive language, social skills and academic competence. In order to ascertain the effect of the Learn to Play Program on a child’s play, language, emotional regulation, academic competence, social skills and narrative, Cohen’s $d$ was used. The Learn to Play program had a large effect on the narrative skills of children participating in the study ($d= 2.72$) a medium effect on a child’s forgetting scores ($d=0.59$), assertion ($d=0.65$) and academic competence ($d=0.50$).

In order to determine whether play predicts language, social, academic, narrative and emotional development, a Generalised Estimation Equation (GEE) was used. The results demonstrated that object substitution at baseline (measured through Number of Object
Substitutions) predicted expressive language (recalling sentences) \( (p = .000) \), narrative: Mean Language Utterance (MLU) \( (p = .015) \), social skills \( (p = .000) \) and academic competence \( (p = .000) \) at follow up. A child’s elaborate play at baseline plus time predicted social skills at follow up \( (p = .000) \). Elaborate play at baseline predicted narrative MLU \( (p=.016) \), expressive language (recalling sentences) \( (p = .009) \) and academic competence \( (p = .001) \) at follow up.

Study Three focused on how the schools implemented Learn to Play in Study Two, whether school staff still valued pretend play in a child’s development and learning and finally, the confidence of school staff in implementing Learn to Play within their schools. Results demonstrated that pretend play was valued by school staff, staff were challenged in co-playing with children, following a child’s lead and valued the importance of supportive staff and management in order for a Learn to Play Program to be effective within their schools. Conclusions were drawn that parent involvement, play assessment, management support, motivation of staff, training for staff and an adaptable program that could be implemented based on the needs of individual schools. These factors were found to be critical for the sustainability of a Learn to Play Program within specialist schools.
CHAPTER ONE

INTRODUCTION

Chapter One of this thesis will outline the aim of the research, the background to this study, it’s significance within the field of occupational therapy and education, the frameworks used to examine this research (including the Person-Environment-Occupation-Performance (PEOP) Framework (Christiansen & Baum, 1991) and the Model of the Dimensions of a Program (Gervais, 1998) and then finally this chapter will include the overall structure of the thesis.

The aim of this thesis is to present research into play programs (more specifically, the Learn to Play Program) for children with developmental delay and disability in their first year of school (aged 5-7 years) attending either a special or special development school (SDS) in Victoria, Australia. There are six categories of specialist schools in Victoria. The six categories include: special schools, SDS schools, dual mode schools, autism specific schools and sensory specific schools (Department of Education and Training, 2016). Two out of the six specialist schools were included in this study: special schools and SDS. The level in which an intellectual disability is determined is defined on an intelligence quotient (IQ). Children who have an IQ below 70 in Australia are eligible for specialist school education. Special schools cater for children with mild intellectual disability. Special development schools (SDS) are schools which cater for children with moderate to severe intellectual disability (The Association for Children with a Disability, 2015, “for students with an intellectual disability”). For a child to attend a special school their IQ is determined to be between 50-70 (Department of Education and Training, 2016). In Victoria, there are 17 special schools with the majority of them located in Melbourne or large regional areas. For a child to be eligible for an SDS school their IQ is determined as 50 or below. There are 20
SDS schools in Victoria, with the majority located in Metropolitan Melbourne (Department of Education and Training, 2016).

Specialist schools provide adjustments to curriculum, pedagogy, physical access to the school, therapy support such as occupational therapy and speech therapy as well as staff with extensive skills (Department of Education and Training, 2016). This research was developed in order to establish the benefits of implementing a play-based program (the Learn to Play Program) in special/SDS schools to determine whether a play-based program would be an appropriate addition to the curriculum to support a child with developmental delay and/or disability in their development and learning. This research was also developed as an area of need and interest expressed from some special and SDS schools in Victoria, Australia. The evidence for play-programs in special and SDS schools at the time of this research is limited but growing. Evidence for the Learn to Play Program in special schools is limited to one study (O’Connor & Stagnitti, 2011). The Learn to Play Program is based on developing the pretend play skills of children with delayed or non-age appropriate pretend play skills. Pretend play is the ability to engage in pretense, use symbols in play, attribute properties to objects and referring to absent objects in play (Stagnitti, 2010). Research shows that pretend play in children with developmental delay and/or disability is often impaired (Baron-Cohen, 1997; Barton, 2015). Children with developmental delay and/or disability do not often develop the ability to spontaneously initiate pretend play (Stagnitti, 2010), impacting on their ability to socialise with peers, and develop language that is contextually relevant. These children often enter the school system with limited self-regulation, delayed cognitive, language, social and emotional skills (Roberts, Stagnitti, Brown & Bhopti, 2018).

The relationship between pretend play and areas of childhood development including social, language and cognitive skills are well supported within the literature. Further to these findings, research shows that pretend play enhances the development of abstract thinking.
Research on play-based programs within special/SDS school settings is currently limited. Considering the amount of research supporting pretend play and its impact on childhood development, this is surprising. Therefore, this research aimed to build on the current knowledge by focusing on children with developmental delay and disability within special and SDS school settings. The overall aim of this research was to evaluate the effectiveness of a Learn to Play Program within special and SDS school settings.

The aims of this research were:

1) To investigate the views of school staff on the importance of pretend play and development, their understanding and/or experiences in a play-based program and any supports or resources staff required to implement a play-based program within their curriculum.

2) To establish if there were any changes in a child’s development (play, language, social and emotional skills) and learning (cognition) in their first year of specialist schooling after participating in a Learn to Play Program and whether play predicted any areas of development.

3) To explore the impacts of a Learn to Play program in special/SDS schools on school staff, including commonalities and differences in the way the Learn to Play Program was implemented and any changes in the importance of play in enhancing the development and learning of children with developmental delay and/or disability.

This research is significant in the field of occupational therapy and education. This thesis hopes to deepen the knowledge base of professionals, more specifically of paediatric occupational therapy and teachers by providing evidence on the effectiveness of play-based programs in special and SDS school settings. This research included the views and
experiences of school staff before and after running the Learn to Play Program in order to understand their perceptions of play and learning and the challenges and strengths faced by the individuals implementing such a program. In understanding these needs it is hoped that future recommendations can be made which reflect the current needs of staff running a play-based program in a special or SDS school. This thesis will consider both the strengths and challenges of using play as a means of achieving optimal development and learning outcomes for children with developmental delay and disability in a special/SDS school setting. This research will contribute knowledge for integration aides, speech pathologists, school psychologists, principals and other members of a school team who are involved in curriculum development and implementation. This study will contribute to the field of research into pretend play and how play can be used to support children with developmental disabilities to develop language, social and cognitive skills in a school-based play program.

**Framework for the Study**

The Person-Environment- Occupation- Performance (PEOP) model was developed in 1985 and first published in 1991 by Christiansen and Baum (Christiansen, Baum, Bass-Haugen, & Library, 2005). The PEOP model is a client-centred occupational therapy model which is used to describe the interactions between a person and the environment and how these interactions influence the person’s performance in their occupations. Different factors interact to determine a person’s occupational performance. First, there are intrinsic factors (Person) that are associated with the person. These factors are cognition, social/emotional, neurobehavioral, physiological and spiritual factors. External factors specific to the environment are cultural norms and attitudes, societal policies and beliefs, social support and connectedness and the natural/built environment. Occupations are defined as what we do and how we engage in our world. Occupations provide us with the opportunity to grow and develop whilst allowing us to express our values, beliefs and express ourselves (Christiansen,
Baum, Bass-Haugen, & Library, 2005). Lastly, performance refers to the way in which an individual engages and carries out their roles within their chosen occupations (Christiansen et al., 2005). The point at which person, environment, occupation and performance intersect influences a person’s participation in a particular activity, task or role that is meaningful to them (Christiansen et al., 2005). This is called occupational participation. The range of intrinsic factors and the interaction with other factors (for example the environment) impact on the ability of the individual to engage in meaningful activity, roles or tasks. For example, a child’s vestibular sensory system (neurobehavioral factor) may impact on their ability to use a swing while at the park with friends. If a child has an impairment in their vestibular sensory system they may not be able to modulate or integrate vestibular and sensory information. The deficit in integration and modulation may reduce the child’s ability to manage everyday activities and decrease their confidence. As a result, they may not want to use the swing, limiting their occupational participation. This can impact on the child’s social connectedness if they cannot participate in a shared interaction with their peers (environment) leading to broader occupational participation and performance issues. The intrinsic factors of a child with developmental delay or disability differ to those of a typically developing child. A child with a developmental delay or disability is often delayed in multiple intrinsic factors (such as cognition, social/emotional and neurobehavioral factors). The social, cultural and built environment has a large influence on the child with a disability, the intervention they are able to receive to assist their development, the parental and family support they receive, their access to the built environment and the connectedness to their community (Rodger & Ziviani, 2006). For example, a child with a disability may have sensory issues (neurobehavioral), low self-esteem (social/emotional) and difficulty understanding, planning and sequencing their actions to participate with their peers at the park (due to low cognition). Communities are considered a resource to support parents, children and their families in supporting children’s
development (Rodger & Ziviani, 2006). Within communities, children engage in a range of
different occupations (Law, Baum & Dunn, 2005).

Dunbar (2007) outlines the primary occupations of children to include those of a
friend, learner and a player and state that children are largely influenced by the environments
in which they carry out these occupations. Throughout different stages of childhood, children
participate in different roles and occupations. For a four-year-old, their main role is that of a
‘player’. However, when they start primary school the following year their role of a ‘player’
shifts to that as a ‘student’ (Rodger & Ziviani, 2006). Most children with an adaptive nature
will be able to cope and adapt to these shifts. For children with developmental delay and/or
disability, it is challenging to shift between roles. Typically developing children will also
develop many play skills and participate in a range of play experiences throughout their years
(Rodger & Ziviani, 2006). As children get older, their play tends to change to games with
rules which lead to specific sport or leisure interests in turn which leads to community
engagement (Rodger & Ziviani, 2006). Children with developmental delay and disability
often don’t participate in these roles to the full extent of their typically developing peers
(Phelan & Kinsella, 2014) therefore impacting on their occupational performance and
participation in play. Many children with developmental delay and/or disability don’t develop
the early foundations of play and interaction with peers, therefore they cannot then
understand games with rules when they get older (Casby, 2003). For example, children with
developmental delay may not have the skills to engage with another child in a game of
‘chasey’ as they do not understand the rules of the game (cognition) or may not be able to
communicate with their peer. Therefore, the occupations, opportunities and choices of
children with developmental delay or disability vary to those of typically developing children
(Phelan & Kinsella, 2014). The term ‘occupational performance’ is the point in which the
environment, personal factors and the individual’s occupation all intertwine to influence the
individual’s life (Law, Baum & Dunn, 2005). For a child entering school, the expectations on a child’s occupational performance changes. There is more demand on the child’s academic skills, social participation and behaviour than pre-school years (Rodger & Ziviani, 2006). Primary interactions shift from those as a family member to spending the majority of their time with peers.

When a child has a developmental delay or disability each area of the PEOP Model is negatively impacted. These negative impacts limit the child’s participation and occupational performance in play. If the interactions between the components of the PEOP is optimal, then, we can suppose that their occupational performance in age appropriate roles such as members of a team, friends, etc. will be appropriate.

The PEOP Model will be used to shape the findings and discussions presented throughout the thesis in relation to the impact of ‘play’ as the primary occupation in early childhood, as well as a child’s role as a student and a learner once they reach school. The PEOP Model was chosen for this research as it is a client-centred framework, which can be applied to the participants within a school environment, considering the personal, contextual and environmental factors, as well as the participation in the occupation of play through the Learn to Play Program, specific for children with a developmental delay or disability.

**Gervais Framework – The Model of the Dimensions of a Program**

The Model of the Dimensions of a Program (Gervais, 1998) was used in this research to evaluate the Learn to Play Program in special and SDS school settings. The development of the Model of Dimensions of a Program arose following social, political and economic pressures on groups offering services to clients in Canada in the 1990’s, forcing the review of organisation programs and structures (Gervais, 2010). The model was originally used to evaluate programs within the health field. It was developed to consider the complexity of the
changing environment and recognises the need for updated and relevant programs in the health field (Gervais, 2010). The model is now used under a number of different fields (education, management and international cooperation) (Gervais, 2010). In order to develop the model, two main analyses were conducted. Firstly, an analysis of past experiences in evaluation used in different disciplines (including education, economics, health, management, social science and technology) and secondly, an analysis of traditional approaches in evaluation (result-based, functional, systematic and socio-political approaches) (Gervais, 2010). The different domains of activity of programs were then considered, leading to the main components of the model being developed. The main components include: The Structural components (the resources and structure of a program), the Operational component (activities and behaviours), the Strategic component (policies and management practices) the Needs, Constraints, Systemic (External Environment) and Specific (Results/Impacts). These components will be discussed in detail in Chapter Two: Literature Review. In addition, the terms ‘Model of a Dimension of a Program’ and the ‘Gervais Framework’ will be used interchangeably throughout this thesis.

**Thesis Structure**

This thesis will document the research conducted across three studies and will be presented in ten chapters. The format of this program evaluation of a play based program followed that of Moscoso, Chavels et al. (2013) with the evaluation process occurring in three stages: before the program (Study One), during the program (Study Two) and after the program (Study Three).

The thesis will be structured in the following manner. Chapter One, Introduction, has introduced the topic of this research. The following chapter, Chapter Two explores the findings within the literature in relation to pretend play and its relationship with childhood development and learning. The literature review will also include pretend play and its
relationship with developmental delay and disability, the links between pretend play and learning in early childhood and the role of pretend play in supporting school-readiness skills (including self-regulation), cognition, problem-solving, narrative competence and literacy. Literature into the role of play interventions and play-based curriculums within educational settings, including specialist and mainstream school settings will then be presented. The role of teachers and therapists in supporting, facilitating and implementing play-based curriculums within specialist school settings will be explored including; challenges, strengths and key features to successful integration. Finally, ‘The Model of the Dimensions of a program’ (Gervais, 1998) will be discussed.

Chapter Three presents Study One, which is the exploration of staff views on the importance of play in childhood development, and what resources/supports they would require to implement a play-based program within their school setting. The methodology, results and discussions for Study One are also presented in Chapter Three. Chapter Four presents Study Two, which is the implementation of the Learn to Play Program within four special/SDS schools in Victoria, Australia including the research design, instruments, procedures and data analysis. Chapter Five presents the results of Study Two and Chapter Six presents the discussion. Chapter Seven presents the research design, instruments, procedure and data analysis and results of Study Three. Study Three aimed to investigate the experiences of staff in implementing and running the Learn to Play Program within their schools, including challenges and positives. Chapter Eight presents the discussion. Chapter Nine explores the commonalities and differences in the way the special/SDS schools implemented the Learn to Play Program within their school settings. Chapter Ten, the final chapter, is the refinement of the Learn to Play Program, recommendations for its future implementation, limitations and the conclusion to the research.
The Person Environment Occupation Performance (PEOP) Framework will be used to shape the literature and findings presented in this research in Chapter Nine and Ten. The Gervais Framework (Gervais, 1998) will be used to shape the program evaluation of Learn to Play and understand how the structures, policies, principles and elements of the program interconnect to influence the development and outcomes of a program. The Gervais Framework will be presented at the end of each study in order to evaluate the program, and to make recommendations about the future implementation of a play program.

The following diagram presents the layout of this thesis. Following this, Chapter Two will present the Literature Review for this study.
Figure 1.1. The Layout of the Thesis
CHAPTER TWO

LITERATURE REVIEW

Chapter One outlined the introduction to this research, including the aims of the thesis, the background to the research, the research significance, framework for the study and the thesis overview. Chapter Two, Literature Review will build on the Introductory chapter by highlighting the literature surrounding pretend play programs for children with developmental delay and/or disability attending specialist schools. The aims of the Literature Review will now be presented.

The primary aim of this literature review is to report on research conducted in the field of childhood development in relation to the role that pretend play can have on enhancing childhood development. Secondly, to explore the impact of play-based curriculums and play-based programs within specialist school settings (including special and SDS schools) in relation to child development and learning. In Victoria, Australia (where this current research was based) special schools are designed for children with mild intellectual disability with IQs between 50 and 70 whilst Special Development Schools (SDS) are for children with moderate to severe intellectual disability (The Association for Children with a Disability, 2015, “for students with an intellectual disability”) with IQs below 50. Due to the limited literature surrounding specialist schools, literature surrounding play-based curriculum within mainstream schools will also be discussed. Literature will be discussed and presented in the following order: pretend play and childhood development, including children with developmental delay and/or disability, secondly pretend play and its role in pre-school settings, thirdly, play programs in specialist and mainstream schools including teacher experiences and finally, program evaluation including the Model of the Dimensions of a Program which is a framework that can be applied to play programs.
As this literature review will include both international and national literature, it is important to note that in the US the term ‘kindergarten’ is used for the first year of official primary school. Therefore, when reporting on US literature, the term ‘kindergarten’ has been changed to ‘prep’ which is an Australian term used in Victoria for children in their first year of school. The term ‘kindergarten’ will be referred to as the year before a child starts their first year of school (in Australia this is known as a 4-year-old kindergarten program).

Play

The study of play has a long and rich history in the literature. Throughout the 1950’s personality theorists were interested in exploring different theories into the impact of play on child development (Kavanaugh, 2006). One of the main theories was that of psychoanalysts with views around the role of play in overcoming emotional trauma and disturbance (Isenberg & Quisenberry, 2002). Other views on play included those from psycho-socialists who viewed play as essential to working out how to manage day to day life, constructivists believing play is vital for cognitive development, maturationists believing that play is essential for social development and neuroscientists believing that play is essential for emotional, physical health and motivation (Isenberg & Quisenberry, 2002). Play allows children to develop interests, act out roles and situations, learn to regulate themselves and develop their social competences (Kroll, 2017). Play is particularly important in kindergarten settings where children are developing a sense of who they are and learning to manage social situations and develop their problem-solving abilities (Kroll, 2017).

What is pretend play.

There are a number of alternative names for pretend play within the literature including symbolic, representational, dramatic, fantasy, socio-dramatic and imaginative play. For the purpose of this review, the term pretend play will be used. The term thematic-fantasy play will also be used in relation to narrative competence in this chapter. Thematic-fantasy
play is a higher level of pretend play which includes high fantasy roles and themes in the play (Wyver & Spence, 1999). The term ‘pretend play’ is used to describe the intersection between two elements: play and pretense (Lillard et al., 2013). It is argued that children begin to participate in pretend play, develop language and mental representation’s around the same time in early childhood (Bergen, 2002). In typically developing toddlers, pretend play generally starts developing by the age of 18 months to two years (Campbell, Mahoney, Northrup, Moore, Brownell & Leezenbaum, 2018). By three and four years of age, pretend play includes elements such as role play, imaginary situations and complex object substitutions (Campbell et al., 2018). It is widely agreed upon that pretend play is a unique form of play as it encompasses the use of symbolism, attribution of properties to objects and making reference to absent objects during play (Baron-Cohen, 1987; Bergen 2002; Leslie, 1987; Lillard, 1993; McAloney & Stagnitti, 2009; McCune-Nicolich, 1981; Russ, 1998; Stagnitti, 2010b). Stagnitti (2010b) reports when a child is engaged in pretend play it is thought that they will be engaged with conventional toys (conventional-imaginative play) which are often described as ‘concrete toys’ within different play types with an intended purpose. These toys include toys with a specific meaning, for example a truck, a cow, a house, a person. Children can use these toys to represent their already established purpose without having to impose a symbolic element. The child will also engage with unstructured objects (symbolic play) and provide meaning to these objects within the play. Unstructured objects may include items such as a box, a cloth or a stick. In order to develop play ideas, children must impose a meaning on the object. As children develop and grow older, their pretend play becomes more complex and children often engage in cooperative, socio-dramatic and thematic fantasy play where they are assigned different roles to carry out within play scenarios with their peers (Ashiabi, 2007).
Pretend play also differs from other forms of play such as sensorimotor or functional play in that it requires a child to impose meaning on objects and actions and to use their imagination to step into character roles and representations. In Stagnitti’s (2004) review of play literature and play assessment in occupational therapy, play is described to include the following dispositional characteristics; play must be internally driven by the child, transcend and reflect reality, controlled by the player, involves more attention to the processes rather than what is produced, is safe, fun, unpredictable and pleasurable and finally, is spontaneous (Stagnitti, 2004). It is argued that pretend play displays all these characteristics.

McCune (1981) reports on the common criteria within the literature used to describe the different stages of pretend play. These include the child; 1) treating inanimate objects as animate, 2) everyday activities are reproduced in the absence of required materials, 3) the child performs common activities done by someone else, 4) activities are not completed to their usual outcome and 5) object substitution is included in play (McCune-Nicolich, 1981). Lillard (1993) describes pretend play to include: a pretender, a reality, a mental representation that differs from the child’s reality and a layering of representations over the child’s reality.

Malone (1999) describes play as a process in which children learn skills that they have not previously experienced, become competent in these skills and adapt them to the wider world.

In a study conducted by Fein (1975) on the transformational analysis of pretending, the stages of pretence in relation to a child’s age are discussed. At around 12 months of age a child is using ordinary household objects and the child is enacting behaviours of themselves. By 18 months of age a child can shift from self to other and begins to include others in roles. Around 2 years old a child can shift roles, attribute functions to objects and establish relationships between two objects (Fein, 1975). Fein’s notions have been further developed in
recent literature. Carmody and Lewis (2012) report that by the age of two, typically developing children have formed a representation of themselves. This includes the development of feelings, social behaviour such as empathy and theory of mind. Stagnitti (2010b) outlines similar developments of pretend play in relation to milestones. Within the first year of life play is largely focused on sensorimotor/exploratory play where the child is working out the world they live in. In the second year of life, children begin to use objects imaginatively and language starts to develop. By the third year of life, a child’s play becomes complex with logical actions being carried out to produce a story. Casby’s (2003) review supports the view that play becomes more coordinated, cohesive and involves sequential combinations of symbolic play by the third year. Within the third year, the complexity of a child’s play continues to develop, with the use of symbols, narration, social engagement and role play increasing throughout the fourth year (Stagnitti, 2010b). Children’s play is very detailed and stories can be played out over a number of weeks (Stagnitti, 2010b). When a child enters the first years of primary school, their complexity in play continues to grow and children are using much more narration in play (Stagnitti, 2006).

Gender differences have been reported within the literature in regards to the pretend play differences between boys are girls. Malone and Langone (1995) who studied children with cognitive impairments found that girls engaged in more pretend play activity, although boys participated in more functional play actions. Research is limited to this study in relation to gender differences among children with developmental delay/disability as well as typically developing children. Interestingly, in a study conducted by Brėdikytė, Brandišauskienė & Sujetaité-Volungevičienė (2015) on 454 typically developing children aged 1-7 years across six kindergartens in Lithuania, there was a statistically significant difference in the way boys and girls played in relation to play actions. Girls tended to take on more role play and boys
engaged in more adventurous play. Girls also played more with a play partner and kept to the rules of the role more than boys.

**Historical views of pretend play.**

Research and theory of pretend play have been largely influenced by the work of two main researchers, Piaget (1962) ‘the Piagetian theory’ and Vygotsky’s (1976) ‘zone of proximal development’. Piaget and Vygotsky’s views on pretend play and the impact on childhood development are continuing to be reported within the literature to this day. Vygotsky (1933/1967) as cited in Nicolopoulou, Barbosa de Sá, Ilgaz, and Brockmeyer (2009) stated that in the early years of a child’s life, play is the source of development and creates the ‘zone of proximal development’ in that the child is pushed beyond the limits of their development and provided with an opportunity to expand their cognition, language and social competence (Nicolopoulou, 2010).

Vygotsky (1976) was primarily concerned with two fundamental questions. Firstly, how does play come about in a child’s development? Secondly, is play the leading form of activity in a preschool child or is play simply the predominant form at this age? As previously mentioned, Vygotsky refers to the term ‘zone of proximal development’ and argues that pretend play creates this zone through the involvement of imaginary situations within an imaginative sphere, the creation of voluntary intentions within the play and the formation of real-life concepts and motives. Vygotsky stresses the importance of creating imaginary situations, and the rules involved in imaginary situations (Nicolopoulou, 2010). Vygotsky refers to the ‘rules’ of imaginary situations in terms of the roles and behaviours particular characters are expected to adopt in pretend play, for example a child pretending to be a mother will act out the ‘maternal behaviour’ while playing that role (Nicolopoulou, 2010). Rules are often defined by the observations made in ‘real life’ (Vygotsky, 1976). Vygotsky (1978) as reported in Martlew, Stephens and Ellis (2011) held the view that when children
learn to follow rules and control their emotions rather than acting on impulses they are more likely to master academic skills in school.

Vygotsky (1976) reported that a child’s intellect is often described as a higher or lower level of intellectual functioning in which the child moves from one stage to another and that this is often considered without taking into account the child’s motives, needs and incentives within a particular environment. Vygotsky argued that play does lead to further cognitive development in children and that play is a demonstration of a child’s cognitive capacities. At the pre-school age, needs and desires of children are spontaneously expressed in play, therefore aiding to shape a child’s intellectual development. This is also supported in recent research by Kroll (2017) who stated that pretend play is important in developing social, emotional and cognitive skills in the pre-school years. Whitebread and O’Sullivan (2012) support this notion, researching the link between pretend play, metacognition (monitoring and controlling cognition) and self-regulation in early childhood development. Children are motivated to regulate their own behaviour and create their own decisions and challenges in social pretend play in comparison to adult-led tasks. This helps children to self-regulate, engaging in more complex pretend play which involves problem-solving, decision making and further develops literacy and cognitive skills (Whitebread & O’Sullivan, 2012).

Piaget (1962) took the position that symbolic play is an adaptive behaviour that reflects a child’s semiotic, or representational cognitive functioning (Pellegrini & Galda, 1993). A child’s symbolic play clearly derives from the structure of thought, hence the child’s cognitive capacity (Bruner, Jolly, & Sylva, 1976). Piaget argued that play involves three key sequences; sensorimotor, pretence and games with rules and described these sequences as occurring in an inverted U shaped curve, with the onset of pretend play accompanied by a decline in sensorimotor play (Piaget, 1952). Unlike Vygotsky, Piaget believed that pretend play does not lead to cognitive development and that play was primarily a reflection of a
child’s cognitive functioning. Although both theorists’ views are supported in different ways throughout current literature, majority of research now support aspects of both theorists in that play is an opportunity for children to learn and grow, develop new ideas and foster their imagination (Singer, Golinkoff, & Hirsh-Pasek, 2006).

Play is seen to be the primary occupation in early childhood (Isenberg & Quisenberry, 2002; Vygotsky, 1976) with theorists suggesting that the absence of play has a major impact on a child’s creativity and learning. In relation to the PEOP Model, the views of these theorists demonstrate the impact in which a child’s personal factors (e.g. cognitive ability and social competence), environments (e.g. social environment with competent others, pre-school settings) and the occupation of ‘play’ may have on their development and vice versa. Pretend play will now be discussed in more detail in relation to key areas in childhood development.

**The Impact of Pretend Play on Key Areas of Typical Childhood Development**

Play has been described as a universal expression of children and has been observed in nearly all cultures and societies across the world (Drewes & Schaefer, 2010). Pretend play has been described as the most powerful and developmentally appropriate means for children to develop cognitive ability, emotional development, ability to deal with situations, impulse control and social competence (Chaloner, 2001; Frost, Wortham, & Reifel, 2008). Pretend play involves the construction of narratives, sequencing of ideas and actions, organisation, personal/social boundaries, complex planning and well-developed language skills (Malone, 1999; Rutherford, 2003). A vast amount of research supports these views in that pretend play is linked to a number of key areas in childhood development including cognitive, language and social competences (Bergen, 2002; Berkhout, 2010; Drewes & Schaefer, 2010; McAloney & Stagnitti, 2009; McCune-Nicolich, 1981; Nicolopoulou, Barbosa de Sá, Ilgaz, & Brockmeyer, 2010; O’Connor & Stagnitti, 2011), however some researchers, in particular Lillard et al. (2013), argued that pretend play is not causal in developing social skills,
problem-solving, language, narrative and emotional development and that there is not enough evidence to support the causal nature of pretend play on areas of development. Lillard et al. (2013) debated the current research, stating that many studies are outdated and experimental standards were not as high as in current research today. There was a reaction by the research community to Lillard et al.’s (2013) paper with a considerable amount of evidence put forward as supporting the link between pretend play and areas of development and learning (Bergen, 2015; Nicolopoulou & Ilgaz, 2013; Weisberg & Hirsh-Pasek, 2013). Nicolopoulou and Ilgaz (2013) were particularly focused on narrative and pretend play, supporting the link between these two developmental components therefore providing a rebuttal to Lillard et al. (2013). They argued that Lillard et al. were harsh and overly critical of existing research. The methodological issues in which Lillard et al. (2013) raised were often accounted for, for example in relation to Lillard et al.’s concerns that children were “learning” the narrative tests used in studies in the 1970s and 1980s. Nicolopoulou and Ilgaz (2013) closely analysed each of these studies and found that each study (except for Pellegrini and Galda) used different narratives for the follow up tests, therefore eliminating this methodology flaw. Weisberg and Hirsh-Pasek (2013) also argued against Lillard et al. (2013) and the fact that the researchers was too harsh on the literature surrounding pretend play and learning. They argued that the literature on the causal relationship between pretend play and learning was based on a range of different methodologies and that it should be considered more holistically (Weisberg & Hirsh-Pasek, 2013). Bergen (2013) took a slightly different stance on the methodological issues, and stated that most of the literature Lillard et al. (2013) reviewed did not include pretend play, but more ‘playful’ approaches. Therefore, the nature of pretend play and its causal relationship with developmental components could not be dismissed. Bergen (2013) agreed with some points from Lillard et al. (2013) in relation to the need for larger sample sizes and a larger research budget. Bergen (2013) also argued the need for research to
focus on pretend play, specifically the need for more longitudinal or cross-sectional studies to investigate the casual relationship between pretend play and developmental components such as cognition and narrative development.

Due to the vast amount of literature and the important role of pretend play in the development of language and social competence, these areas will now be discussed in detail, followed by pretend play and its role in facilitating learning.

**Pretend play and language.**

The relationship between pretend play and language development cannot be overestimated (Schuster, 1986) and is documented within the literature by a number of key researchers (Athey, 1988; Bergen, 2002; Christie & Roskos, 2006; Doswell, Lewis, Sylva, & Boucher, 1994; Lewis, Lupton & Watson, 2000; McCune, 1995; O'Toole & Chiat, 2006; Pellegrini & Galda, 1993; Schuster, Ashburn, & Coralli, 1987; Stagnitti, 2010; Zigler, Singer, & Bishop-Josef, 2004).

When children engage in pretend play, they are imitating behaviours from their real life contexts (McCune, 1995). Children will often use sound effects, gestures and facial expressions to accompany their actions (McCune, 1995). As play becomes more complex, children use more symbolic language in line with their play (Campbell et al., 2018). McCune (1981) investigated literature around the development of symbolic play with an emphasis on exploring any common theoretical base it may have with language development. McCune’s investigations support the relationship between symbolic play and language development through: (1) pre-symbolic behaviours in both play development and language (attaching meaning to objects) for example when a child is drinking from a cup, they may name it “cup”, (2) initial pretending and first referential words (describing the play), (3) the emergence of combinatorial behaviours in both play and language, the child can now pretend using a character, they imitate the actions of others and provide gesture and finally
hierarchically organised language and symbolic play which involves the child using play in a sequenced way, the child will feed the doll before putting the doll to bed (McCune-Nicolich, 1981). Research supports the parallel nature of pretend play and language development and its particular presence under the age of two (Quinn, Donnelly & Kidd, 2018). In a more recent review by Quinn, Donnelly and Kidd (2018) 35 correlational studies were analysed to investigate the relationship between pretend play and language development. The results demonstrated a strong relationship between pretend play and language development across the literature, placing no doubt on the relationship (Quinn, Donnelly & Kidd, 2018).

As we have discussed in previous sections, pretend play requires the ability to represent objects and actions symbolically, it is carried out through narration, social dialogue and negotiation between peers (Bergen, 2002). In language, sounds represent different objects and components of the play, children act out stories and engage in pretend play using language, thus it is not surprising that pretend play has been strongly linked with oral language development (Christie & Roskos, 2006). Hence, it has been reported that children begin to develop their language skills and pretend play skills at the same time in early childhood (Bergen, 2002). Socio-dramatic play (pretend play) places high demands on children to use their highest level of language abilities. Children must signify what is happening in the play, identify and elaborate on play themes and respond throughout the play (Christie & Roskos, 2006).

McCune (1995) tested the hypotheses on the relationship between pretend play and language development proposed by herself in earlier research. These relationships included: the onset of lexicon with the onset of pretending, combinations in language with the onset of symbolic play and the beginning of rule governed language being associated with hierarchical combinations in play. The results of this longitudinal study with six children (3 female and 3 male) aged between 9 and 24 months supported these hypotheses and found that children
made language gains at the same time as equivalent play developments (McCune) thus providing further evidence to support the relationship between pretend play and language development.

Doswell et.al (1994) studied the concurrent validity of a symbolic play test (The Warwick Symbolic Play Test) along with two language assessments, the Revised Renfrew Action Picture Test (RAPT) (Renfrew, 1998 as cited in Doswell et al., 1994) to measure their expressive language ability and the British Picture Vocabulary Scale (BPVS) (Dunn, Whetton & Pintilie, 1982) to assess receptive language ability. Sixty 3-6-year-old typically developing children were in the sample. Pearson product-moment correlations were calculated between the play test scores, the raw scores on the language assessments, age and the sex of the children. All correlations between symbolic play and language were significant (expressive and receptive language vocabulary). To investigate the impact of age on the link between symbolic play and language, Doswell et al. (1994) divided the sample into three groups; 3:2-4:1 years, 4:2-4:9 years and 4:10 to 5:8 years. Correlations between play and language were statistically significant for the youngest group, not as highly correlated for the middle group and not significant for the older group. This shows the relationship between pretend play and language development and how this is parallel to one another in early childhood development. This can also be interpreted through the fact that the complexity of play needs to match the language development of children as they get older. If this match is not met then inconsistencies will occur between the play and language relationship.

In a review into pretend play and language impairment, Casby (1997) reported that significant differences in the complexity of pretend play in younger children had not been explored in the literature. Casby’s (1997) review on literature around language impairment and symbolic play found that the symbolic play ability of children with language impairments was different to children with typical language development between the ages of 4:6 to 5:0
years of age and secondly, no significant differences in the complexity of symbolic play was reported in younger children. When matching the language levels, children with language delay demonstrated more complexity in play than the younger typically developing language controls (Casby, 1997).

Casby notes that more reliable research is needed to explore the relationship between pretend play and language as a number of studies used verbal instructions and commands to elicit behaviours, hence confounding the results (Casby, 1997). Casby concluded that children with language impairment exhibit object substitution less frequently than typically developing children and they do demonstrate functional and conventional play but less frequently than typically developing peers.

Melzer and Palermo (2016) studied the relationship between the complexity and initiation of pretend play and the Mean Length Utterances (MLU) in typically developing children aged three and four. The results highlighted that children with more complex pretend play showed higher self-initiation of pretend play (compared to those who were led by their parents, therefore less self-initiation). The MLU was a significant predictor of the complexity in pretend play (Melzer & Palermo, 2016) supporting evidence for the relationship between pretend play and expressive language.

**Pretend play and social competence.**

Over the past 75 years, researchers have spent considerable time investigating the development of children’s social competencies and peer relationships (Ladd, Herald, & Andrews, 2006). Social development refers to a child’s ability to develop relationships and get along with others, cooperate with peers, be sensitive to others’ emotions and initiate and join in with others (Ashiabi, 2007; Fung & Cheng, 2017). Pretend play provides opportunities for children to develop relationships with peers through negotiation, solving problems in play and deciding on solutions, enhancing their social skills (Glover 1999 as cited in Ashiabi
During early childhood, children are developing skills such as sharing, cooperating and negotiating with peers (Johnson, Christie, Yawkey, & Wardle, 1987). They are developing the ability to problem solve and understand other’s emotions and perspectives, in turn acquiring skills and values to be able to socialise within the community (Johnson et al., 1987). Play as the primary occupation in early childhood, has a large role in the development of the skills mentioned above. When children engage in pretend play, they are learning specific rules such as turn-taking, organisation, co-operating to make joint decisions, sequencing of ideas and building relationships with their peers (Johnson et al., 1987). According to Vygotsky, the awareness of these ‘rules’ of social interaction are essential in the formation of a child’s symbolic capacities and assists in developing social competencies (Hughes, 2010). Swindells and Stagnitti (2006) investigated the relationship between pretend play and social competence with a sample of children slightly younger (4-5 years). This study found no significant correlations were established between pretend play and social competence using the Vineland Social-Emotional Early Childhood Scales (Sparrow, Cicchetti & Balla, 1998). Parental reports on their child’s social/emotional skills did not correlate with the child’s play skills, children with below normal range pretend play ability were rated well by their parent or guardian for their interpersonal relationships capacity. It was suggested that children with below average play skills may not have been as active in the play and so they looked more cooperative.

Li, Hestenes and Wang (2016) examined the relationship between children’s pretend play skills and social skills in a childcare environment in a sample of children aged 3-5 years. Children’s pretend play frequency and type as well as verbalisations were recorded in a time series. Social skills were assessed using the Social Skills Rating System (Gresham & Elliot, 2008). Results demonstrated that abstract and social pretend play were significantly linked to overall social skills. This demonstrates that the more complex pretend play scenarios are the
more social skills develop. The more complex pretend play becomes, the more cooperative and socially interactive play becomes (Stagnitti, 2009). Farmer-Dougan and Kaszuba (1999) also studied the relationship between social competence and play in preschool children. They found that children who engaged in higher levels of pretend play engaged in more cooperative play, a greater ability to be a play partner, fewer periods of solitary play, and more ability to engage in and maintain meaningful social interactions than children who demonstrated lower levels of pretend play ability (Farmer-Dougan & Kaszuba, 1999).

In a more recent study, Fung and Cheng (2017) studied the impact of gender on the play activities (pretend play and non-pretend play) and social competence among 60 Hong Kong preschool children. Teachers undertook play training and children participated in the play training for one month (two weeks on hairdressers and two weeks on restaurant play). Children in the non-pretend play activity group participated in drawing and craft while the play intervention took place. Children were assessed for social competence pre and post intervention using the Peer Interactive Play Rating Scales (Lin & Lin, 2006). Results revealed that girls who participated in the play intervention were less socially disruptive than girls who participated in the non-pretend play activities. Boys were less disruptive in both the pretend play and non-pretend play groups (Fung & Cheng, 2017).

Although research into social competence and pretend play in preschool children is widely studied within the literature (Farmer-Dougan & Kaszuba, 1999; Fein & Stork, 1981; McAloney & Stagnitti, 2009; Peter, 2003; Vygotsky, 1976), the relationship between pretend play and social competence in school aged children is largely understudied and is an area in need of further research. Uren and Stagnitti (2009) investigated this relationship in 41 school aged children (5-7 years) using the Child-Initiated Pretend Play Assessment (ChIPPA) (Stagnitti, 2007). Results found that a significant positive relationship was found between elaborate pretend play and peer play interaction. Significant negative relationships were
established between elaborate pretend play skills and social disconnection and disruption scores, concluding a strong relationship between a child’s ability to socially interact and engage with their peers and their ability to engage in pretend play (Uren & Stagnitti, 2009). This was supported in a similar study conducted by McAloney and Stagnitti (2009) which found a child’s elaborate play and ability to substitute objects related to how they socially interacted with their peers.

Pretend Play and its Importance in Childhood Development and Learning

The relationship between pretend play and learning.

There is growing evidence to support the link between pretend play and different elements of childhood learning. Smilanksy (1968) documented the link between socio-dramatic play with abstract thinking, a child’s ability to learn and generalize concepts and vicarious learning. A number of researchers support the link between pretend play and cognitive skills including the concepts above as well as skills such as problem-solving and narrative competence. The following section explores the literature in relation to pretend play and its influence on different elements of learning.

Play and cognition/problem-solving.

While Piaget (1962) and Vygotsky’s (1968) theories both emphasise the link between pretend play and a child’s cognitive development, they do so in different ways, with Piaget (1962) arguing that cognitive skills predict pretend play and Vygotsky argues play is a means for developing cognition. Despite these differing views, research has continued to explore pretend play as both a predictor and an enhancer of a child’s cognitive development (Pellegrini & Galda, 1998).

Earlier research conducted by Sylva, Bruner and Genova (1976) laid the foundation for support into the vital role of pretend play in developing a child’s cognition. This study involved a comparison between children who engaged in play with objects compared to
children who were ‘taught’ how to use objects. Results indicated that children involved in playing with the objects were more competent in devising strategies to solve problems and persevered with solving these problems for longer. Since the 1970s there has been a growing body of evidence supporting the link between pretend play and a child’s cognitive development (Bergen, 2002). Whitebread et al. (2009) reported on three studies which examined the relationship between children’s pretend play, metacognition and self-regulatory skills. The experimental studies found that engaging in pretend play was crucial in preparing children for problem-solving, creative, effortful tasks which required high levels of metacognitive (planning, sequencing and reflecting on learning) and self-regulatory skills (Whitebread et al., 2009).

Flavell (1979) explained metacognition as self-awareness of one’s own knowledge in which information is stored in relation to how, when and where to use cognitive strategies and also their ability to be self-aware of and access strategies. Peer interactions with familiar peers during symbolic play may enhance metalanguage and metacognition related to literacy (Pellegrini & Galda, 1993; Whitebread & O’Sullivan, 2002). This is supported by a number of key researchers including Russ (1998) who supports the link between play and creative problem-solving and Nicolopoulou (2010) who found that social pretend play can promote the development of cognitive skills and language. Athey (1988) and Zigler, Singer & Bishop-Josef (2004) also add to this research through suggesting that play contributes to a range of cognitive processes such as concept learning, reasoning and problem solving. More recent research conducted by Whitebread and O’Sullivan (2012) defines metacognition as a child’s understanding of their own mental processing including experiences, knowledge and control. The researchers highlight the link between metacognition and self-regulation, as well as its influence on social, motivation, emotional regulation and cognitive aspects of a child’s
learning. Whitebread and O’Sullivan (2012) argue that through pretend play in the early years, children have the opportunity to refine their metacognition and self-regulation abilities.

More recent research has begun to explore the relationship between pretend play and executive function. Executive function is defined as including cognitive skills such as working memory, flexibility and inhibitory control (Suchy, 2015). Diamond, Barnett, Thomas and Munro (2007) investigated the development of children’s executive functions through executive functioning-training curriculum (based on Vygotsky’s views of child development). This curriculum used dramatic play (pretend play) and self-regulatory private speech (explaining the play to one self) against a Balanced Literacy curriculum. This curriculum was based on literacy and thematic units with children aged 5 years. Results found that children in the executive functioning-training curriculum showed higher developments in their executive functions. The more demanding the executive task, the more highly correlated with academic performance (Diamond, Barnett, Thomas, & Munro, 2007). This study demonstrated that pretend play can facilitate the development of a child’s executive functioning. Similar results were found in a recent study by Thibodeau et al. (2016) who studied the correlation between fantasy play and executive functioning skills in 110 typically developing preschool children. Children were assigned to one of three groups, a fantasy pretend play intervention, non-pretend play intervention or a control group where children carried out their usual daily activities (Thibodeau et al. 2016). Results revealed that children in the fantasy pretend play group demonstrated improvements in executive functions, whereas the other two groups did not. Interestingly, children who participated in more fantastical play (e.g. fairies) compared to social-dramatic pretend play (e.g. mothers/babies) scored better on working memory (Thibodeau et al. 2016).
Pretend play and literacy development.

Pretend play has a crucial role in a child’s literacy development (Tsao, 2008) and the awareness of this relationship is growing (Drewes & Schaefer, 2010; Roskos & Christie, 2001; Trawick-Smith, 2008). When children begin school it is assumed that they are coming equipped to learn, however many children come to school with no emergent literacy skills (Stagnitti, 2010a). Early research conducted by Vygotsky and Piaget placed heavy emphasis on the cognitive connections between play and literacy. According to Vygotsky (1976), by creating an imaginary situation a child is involved in developing abstract thought, real life plans and becoming aware of the meaning of objects which makes pretend play the highest level of preschool development.

Studies of reading and writing in preschool aged children began in the 1960s with the belief that a child’s reading and writing skills would develop once they were introduced to formal instruction during school (Saracho & Spodek, 2006). In correspondence with these views, reading readiness was established within schools using standardised scores. If children did not meet these scores they were to continue practicing the skill of reading until improvements were made (Tsao, 2008). Significant changes have been made with current views on early literacy now largely focused on the role of the environment in supporting children’s literacy (Roskos & Christie, 2001; Tsao, 2008) as well as the importance of ‘emergent literacy’ within the preschool years.

Emergent literacy refers to the natural learning which occurs in relation to reading and writing which children obtain prior to conventional literacy (Goodman, 1997). Emergent literacy involves a broad range of skills including but not limited to; understanding print, recognizing words as a part of speech and written language and understanding the relationship between oral and written language (Goodman, 1997). Emergent literacy is well discussed within the literature in terms of the role of pretend play in enhancing a child’s
early literacy skills, particularly in preschool years (Christie & Enz, 1992; Christie & Roskos, 2006; Goodman, 1997; Gresham, 2008; Saracho & Spodek, 2006; Stagnitti, 2010a). During the 1990’s emergent literacy research provided support for the inclusion of emergent literacy activities such as high levels of story-book reading, opportunities for literacy-enriched pretend play and providing a setting which was print-rich within early childhood educational settings (Christie & Roskos, 2006). Social contexts could also provide children with opportunities to early literacy practices and knowledge (Saracho & Spodek, 2006).

The bulk of research conducted into pretend play and emergent literacy is based on typically developing children in preschool environments (Neuman & Roskos, 1991; Pellegrini & Galda, 1993; Stagnitti & Unsworth, 2004; Uren & Stagnitti, 2009). However, as supported by Justice and Pullen (2003) several factors can contribute to a child’s difficulties in developing literacy skills. These can include children entering pre-school settings with less than ideal emerging literacy skills, often due to socioeconomic background or a disadvantaged circumstance (Piasta, 2016). For children in such circumstances, interventions to promote emergent literacy to further develop their later literacy achievements is required (Goodman, 1997). Thus, if children are coming from disadvantaged backgrounds and/or provided with less opportunities to develop early literacy within the home, how can these children be expected to enter their primary school years at the same level as other children.

As the strong connection between emergent literacy and pretend play has been established, this supports the need for play programs/curriculums within the first years of schooling, particularly with children from disadvantaged backgrounds.

Neuman and Roskos (1991) examined the relationship between literacy enriched play environments using a sample of 37 preschoolers aged between 4-5 years from mixed socioeconomic backgrounds. The study involved implementing literacy-based materials into already existing play corners within two preschools. Observational and video recordings were
used to assess language and play. The results of the study demonstrated the following key findings; 1) enriched environments provide input to literacy related learning; 2) the literacy enriched play environment promoted negotiation of meaning (working out activities together), coaching and encouraging their peers in the play (Neuman & Roskos, 1991). Bronfenbrenner (1979) stated that when a child engages in play, the environment and a child’s social beliefs of play affect their learning and play provides a means for children to practice literacy based skills. These studies assist in understanding the PEOP Model and the role of the environment in helping to shape the child’s ‘occupational performance’ in their primary roles as a player, learner and a student.

In 2001, Roskos and Christie conducted a review using a critical analysis approach, focusing on definitions, explanations and solutions put forward by researchers in 20 investigations into the play-literacy interface. This review was strong in terms of their attempt to understand different components of the research including how the studies were framed, the claims made and the evidence behind the claims, using a 4 point criteria developed by the researchers. Roskos and Christie (2001) discarded the findings of eight out of 20 of the studies as they either had missing information, insufficient evidence and inadequate solution paths. However, Roskos and Christie did not clarify what this included in the eight studies which were disregarded. Roskos and Christie supported the remaining 12 out of 20 investigations as these studies provided consistent, systematic data collection and evidence. The studies selected for analysis included both quantitative and qualitative designs and focused on children between the ages of 3-5 years. Most of the studies were conducted within the learning environment of the children (e.g. the kindergarten or classroom) with few studies in the homes of the children. The overall findings of the 12 studies supplied strong evidence that play can influence literacy by: providing the setting which supports literacy, serving as a language experience to build on oral and written expression, and providing opportunities to
teach and learn literacy (Roskos & Christie, 2001). However, Roskos and Christie (2001) found limitations within a number of the studies reviewed, including flaws in methodologies (using small samples) and definitions of what constitutes ‘play’ were not clear in many studies. The review highlighted the need for research into the play and literacy link in children older than 5 years of age (16 of the 20 studies were with children aged 3-5 years) and in a primary school setting, again supporting the need for future research.

Pellegrini and Galda (1993) reviewed longitudinal and experimental studies into symbolic play and literacy development in children. The researchers concluded that the experimental studies analysed (Pellegrini & Galda, 1982; Williamson & Silvern, 1990) supported the oral language component of symbolic play but not the symbolisation process which enhances a child’s ability to read. This however is a broad statement as children were read a story and asked to act out the play script thus, requiring symbolisation use (Pellegrini & Galda, 1982). Like Roskos and Christie’s (2001) review, the limitation around vague definitions of play exists within the literature and makes comparison of studies difficult.

**Play and narrative competence.**

Play and narrative ability are closely intertwined in early childhood development as pretend play consists mainly of enacted narratives (Gresham, 2008). According to Kim (1999) a child’s ability to tell stories (use narrative) is significant as it reflects their emotions, fantasy, life-styles and knowledge. Siegel and Bryson (2011) discuss the link between a child’s narrative development and the brain. The right side of the brain processes emotions and memories but the left side of the brain puts these into words and recollections associated with feelings (Siegel & Bryson, 2011). When a child is engaged in story-telling, they are integrating these two sides of the brain to work together, therefore allowing a child to develop the skills to understand their emotions, understand why things have occurred and how to cope with events (Siegel & Bryson, 2011).
A study by Williamson and Silvern in 1990 was a unique study in terms of the focus on analysing play training and its impact on children in higher primary school years, over a 7 week period. This study was based on previous work by Kelley, Silvern, Surbeck, Taylor, and Williamson (1986). Williamson and Silvern (1990) used a large sample of 75 children with a mean age of 87 months with difficulties in linguistic abilities. Intervention involved both the treatment and control groups listening to stories read by their teachers, the intervention group then selected roles and props and acted out the stories within their classrooms over a 30-minute period. Teachers were encouraged to facilitate but maintain a non-directive position in the play. Two forms of a story recall test were used pre and post intervention. Mean and standard deviations of the scores on the story recall test for the intervention group were 6.92 and 2.42 and control group 5.95 and 2.57. They found that thematic-fantasy play does enhance story comprehension in older children who have delayed comprehension skills (Williamson & Silvern, 1990). This study recommends the implementation of thematic-fantasy (pretend) play in primary school classrooms specifically to target children with poor comprehension.

Kim (1999) studied the effects of storytelling and pretend play on narrative recall. Kim used a similar procedure to Williamson and Silvern (1990) in terms of reading children a story and asking them to recall the information through pretend play. Kim’s study differed in that she studied children between 4-6 years and used 3 conditions to explore the relationship between pretend play, story-telling and narrative ability: 1) children asked to recall the story with no props, 2) children asked to recall the story with either picture cards or pretend play materials, 3) children asked to recall one week later with no cues. Results revealed that children in the pretend play group told more elaborate narratives, and a higher level of structure when re-telling the story. Conclusions were drawn around the role of pretend play in facilitating narrative recall, with the link between pretend play and the presence of
representational knowledge and pretend play as a motivating context for literature behaviour (Kim, 1999). However, the study did not document the duration of play or the setting in which children were assessed.

Whitebread et al. (2009) emphasised that metacognitive and self-regulatory development are crucial for the development of academic skills and that play is significant within educational settings as it provides the most impact on learning, problem-solving and creativity, not only serving to improve specific intelligence skills but preparing children to deal with daily problems they are faced with. Whitebread et al.’s findings reinforce Williamson and Silvern’s (1990) study which supports the importance of meta-play for childhood learning and also the role it plays in understanding and producing stories.

A recent longitudinal study into play curriculums and its impact on a child’s play and oral language in students in the first year of formal schooling was conducted by Stagnitti, Bailey, Hudspeth-Stevenson, Reynolds and Kidd (2015). They examined a play-based program versus traditional classroom teaching on the oral language skills of children in their first year of schooling. Results showed that children who participated in the play-based program over a six-month period significantly improved in their elaborate play and narrative skills, when compared to the traditional classroom teaching, as well as improvements in their grammatical knowledge (Stagnitti et al., 2015). This supports earlier research by Nicolopoulou, McDowell and Brockmeyer (2006), key researchers in the field of pretend play who believe that there is a link between pretend or symbolic play and a child’s narrative skills. Nicolopoulou et al. (2006) argued that the two are closely integrated with pretend play mostly made up of acted out narratives.

Research into pretend play of children with developmental delay and disability is limited. Most research focuses on pretend play in typically developing children and the
impact of pretend play on key developmental areas. The limited but existing literature on children with developmental delay and disability will now be presented.

**Pretend Play in Children with Developmental Delay and Disability**

Children with developmental delay and disability are children who have cognitive, social, and emotional, language and/or physical impairments. Children with developmental delay and disability are more likely to experience difficulties in pretend play than typically developing children because of the delays they experience in development and learning (Casby, 2003; Chandler, 1997; Ferland, 1997; Westby, 2000). Children with developmental delay and disability display fewer variations in their pretend play and engage in fewer pretend play situations (Barton, 2008). A number of studies have been conducted using three sample groups; children with autism, developmental delay or Down syndrome and a group of typically developing children to assess differences (Baron-Cohen, 1987; Hobson, Lee, & Hobson, 2009; Libby, Powell, Messer, & Jordan, 1998; Rutherford, Young, Hepburn, & Rogers, 2007). Overall results of the studies revealed that children with autism were most significantly delayed in their pretend play skills compared to the other two groups. Children with developmental delay or Down syndrome often had similar play patterns in the development of pretend play to typical developing children however demonstrated a decreased complexity in play, that is a decreased ability to elaborate and extend their play (Venuti, Falco, Giusti & Bornstein, 2008).

In a study conducted by Case-Smith and Miller (1999) on Occupational Therapy practices with pervasive developmental disorders, results found that during interventions, children most commonly had difficulties in pretend and social play. Similar links were highlighted in an earlier study by Wing, Gould, Yeates and Brierley (1977). Interestingly, it was found that children with Down syndrome were likely to engage in pretend play, which was also supported by Libby et al.’s (1998) research however children with Down Syndrome
often display less play scripts and more repetitive play (Venuti et al., 2008). Children with cognitive impairment often show delayed or uneven pretend play skills and a preference for structured play materials (Ferland, 1997; Knox, 1997).

Barton (2008) conducted a literature review into play interventions in pre-school settings focused on supporting pretend play in children with developmental delay and disability. This was the only literature review found focusing on play interventions for children with developmental delay and disability specific to pretend play. Barton (2008) argued that pretend play is a functional goal for children with developmental delay and disability because it is their opportunity to engage with the world, and develop their social relationships. Barton (2008) found that the development of pretend play for children with developmental delay and disability is largely based on adult modelling and prompting in classrooms with toys that are found in pre-school settings. However, methodological flaws were found in the studies particularly with the lack of generalisation across environments (which is particularly important for children with disabilities). Barton (2008) suggests that more research was required with a focus on interventions that support the increase of pretend play components, including functional play, object substitution, sequences of play, verbalisations and scripts.

Sualy, Yount, Kelly-Vance, and Ryalls (2011) conducted a study on the impact of a play intervention with children with language delays in an early education setting. Sualy et al. (2011) reported that children with language delay often have difficulty initiating and sustaining play and they spend less time in group play with children who have typically developing language skills, and have difficulty with pretend play while engaging in less mature play. The measure used to evaluate the intervention was the PIECES, a set of scales which can be used to evaluate free play behaviours. Language impairment was assessed using the Assessment, Evaluation, and Programming System (AEPS) for Infants and Children, 2nd
An intervention group and control group were used. Children in the intervention group were matched on age and gender with those in the comparison group. Children in the intervention group participated in a play session twice a week for 30 minutes over a six-week period. The sessions included 1) a story 2) a play session 3) review of the play. The play session included facilitation from an adult, with modelling and instruction.

Results from the study indicated that five out of the six children in the play intervention group increased their play skills dramatically over the 6-8 week period. Observations demonstrated that children engaged in more representation, object substitution, complexity and variation (Sualy, 2011). Sualy et al.’s study supports the role of pretend play in supporting children with language delay.

Nadar-Grosbois and Viellevoye (2012) studied the self-regulatory and pretend play behaviours of a group of 40 children with intellectual disability and 40 typically developing children. Pretend play was measured using the Test of Pretend Play (ToPP) (Lewis & Boucher. 1997). Results indicated that children with intellectual disability had slightly lower scores in individual pretend play but a significant difference in dyadic pretend play, meaning children with intellectual disability had a similar pretend play level as typically developing children but their social play was significantly less than their typically developing peers (Nadar-Grosbois & Viellevoye. 2012).

Overall, research indicates that children with some disabilities and developmental delay do follow similar patterns to typically developing children’s pretend play, although children with disabilities often display differences in the complexity and sequencing of their play skills as well as differences in social play (Nadar-Grosbois & Viellevoye, 2012). Children with developmental delay and disability have difficulty extending and developing their pretend play skills. Pretend play and its relationship with Autism Spectrum Disorders has also been documented within the literature and will now be explored in depth.
Pretend Play and Autism Spectrum Disorders (ASD).

ASD refers to a neurodevelopmental condition where people display impairments in social skills, social communication and repetitive and restricted behaviours (Chaundry & Dissanayake, 2015). Pretend play skills of children with autism have been found to be significantly impaired or absent (Baron-Cohen, 1987; Hobson et al., 2009; Libby et al., 1998; Rutherford et al., 2007; Rutherford, 2003; Spitzer, 2008; Wing et al., 1977). The impairment or absence of pretend play is often used as a marker for a diagnosis of ASD in children around two years of age (Chaundry & Dissanayake, 2015). Children with autism often engage in repetitive play and rarely produce pretend play (Baron-Cohen, 1997; Schuler, 2000). In Jarrold’s (2003) review of pretend play in autism it was reported that children with autism may have an underlying capacity to pretend but have a problem in displaying it spontaneously. He concluded that children with autism can understand pretend play but have problems producing pretend play actions. This conclusion is supported by Sherratt (2002) and Spitzer (2008) who stated that under structured conditions (e.g. facilitated by an adult) children with autism could demonstrate pretend play, illustrating that they can understand pretend play but have difficulty producing spontaneous pretend play actions (for example, in a no-structured play group environment). In a more recent literature review, Chaundry and Dissanayake (2015) discussed the fact that there is not enough research on the development of pretend play in children with autism and that some children with ASD who have high cognitive skills are able to participate in spontaneous child driven pretend play. Pretend play in children with autism is often delayed in comparison to the child’s cognitive abilities (Westby, 2000) with pretend play delay linked with a decrease in expressive language, imitation and social play for these children (Knox & Mailloux, 1997). The limited and non-existent pretend play skills displayed in many children with autism has been explained through Theory of Mind.
Pretend play and the Theory of Mind in autism.

Theory of Mind is a term from the work of Premack and Woodruff (1978) which describes the ability of understanding, interpreting and predicting your own and other’s behaviours (Leslie, 1987; Portela, Verseda & Gayubo, 2003). In order to understand theory of mind, people must be able to comprehend different mental states (Leslie, 1987). Boucher (1989) and Lillard (1993) describe the three abilities that are involved in pretend play and also in a child’s theory of the mind, which are: applying multiple representations to one object, considering things to represent another and the ability to represent another’s mental representation. Leslie and Frith (1988) also support this claim, suggesting that the parallel between pretence and these three abilities cannot be a coincidence. Lin, Tsai, Li, Huang and Chen (2017) expanded on this to include reacting to others’ behaviours appropriately and being able to participate in a social world.

Theory of Mind is thought to be the most concise explanation into pretend play deficits in children with autism (Rutherford & Rogers, 2003). Lin et al. (2017) studied the relationship between pretend play and Theory of Mind in 92 children with Autism Spectrum Disorder (aged between 4-10 years old). The children were assessed using the Child Initiated Pretend Play Assessment (ChIPPA, Stagnitti, 2007), Theory of Mind Task Battery (Hutchins, Prelock & Bonazinga, 2010), the Childhood Autism Rating Scale (Schopler, Reichler & Rochen, 1988) and the Verbal Comprehension Index of the Wechsler Intelligence Scales (Wechsler, 2003). Results showed that Theory of Mind scores positively predicted a child’s elaborate play skills as measured on the ChIPPA, demonstrating a significant link between Theory of Mind and the quality of a child’s pretend play skills (Lin et al., 2017). Overall, research supports the relationship between a child’s Theory of Mind and pretend play ability (Baron-Cohen, 1987; Baron-Cohen., 1997; Kuhaneck & Watling, 2004; Lillard, 1993; Rutherford, 2003) however Dore, Smith and Lillard (2015) stated that although there are
many studies which support the link between pretend play and Theory of Mind, results are not conclusive. They argued that studies have found similarities between the development of pretend play and Theory of Mind, however this is related to self pretense and cannot be related to the use of objects to pretend, which is a fundamental aspect of pretend play (Dore et al., 2015). In contrast, Kuhn-Popp, Sodian, Sommer, Dohnel and Meinhardt (2013) argued that false belief (and important component in the development of Theory of Mind) and pretend play both require mental processes in the higher levels of the brain. Results of this study showed that the same areas of the brain for pretend play and false belief were activated in children aged 6-8 years (Kuhn-Popp et al., 2013).

Literature has now been presented on typically developing children and children with developmental delay/disability and its relationship with pretend play. This literature review will now focus on the benefits of developing pretend play skills in children within the preschool years in preparation for school, including both research on typically developing children and children with developmental delay/disability.

**The Benefits of Developing Pretend Play Skills in Children in Preparation for School**

Drawing on research we have now discussed, it is evident that pretend play has a large role in supporting the development of children’s social competence, language development, cognition and problem-solving (Bergen, 2002; Drewes & Schaefer, 2010; Fung & Cheng, 2017; Nicolopoulou, 2010; Thibodeau et al., 2016). A child’s developmental capabilities are intertwined with their school readiness, for example, language and social competence provide support for a child’s ability to engage in classroom expectations, follow rules, cope with change, interact with peers and regulate emotions (Bierman et al., 2008). The term ‘school readiness’ will be referred to in relation to a child’s ability to adapt and respond to the changes of beginning the first year of primary school (making the assumption that this is around 5-6 years of age).
Close relationships exist between a child’s play skills, their creativity and ability to develop strategies for adapting to changes they encounter during their lives (Iverson, 1982). Parker, Boak, Griffin, Ripple and Peay (1999) studied the relationship between parent-child relationships and how these impact on a pre-schooler’s school readiness. The sample included 173 mothers of children who attended Headstart Programs (United States version of pre-school for three to four-year-old children). The mothers were interviewed using a number of measures to assess parent-child interaction and home environment including the Parental Attitudes Toward Child Rearing Questionnaire (Easterbrooks & Goldberg, 1984) and The National Evaluation Information System (Abt Associates, 1988). School readiness was assessed by the Cooperative Pre-School Inventory System (Caldwell, 1974).

It was found that parents who understood and promoted play were likely to have children with well-developed school readiness skills, including creativity, curiosity and independence. Parents ability to facilitate learning in the home environment led to more independent children in the classroom (Parker et al., 1999). Further to this research, Hoffman and Russ (2012) investigated the relationship between play, creativity and storytelling in 61 girls. The study found that imagination during pretend play positively correlated with a child’s creativity in stories (Hoffman & Russ, 2012).

Rescorla (1991) reported that children who are introduced to an academic focused curriculum within preschool settings rather than developmentally appropriate play-based curriculums showed higher rates of anxiety and perfectionist behaviour than their playful peers in the preschool years. Academically focused programs in earlier years have demonstrated children have not learned how to learn but are educated that there is one right way which promotes dependency on adults (Singer et al., 2006).

Pellegrini and Galda (1982) conducted an experimental study into the effects of pretend play on a child’s story comprehension in prep, grade one and grade 2 students. The
study consisted of a large sample of 108 children in three different experimental groups: thematic-fantasy (pretend) play, discussion or drawing. The ‘thematic-fantasy play’ involved the children being assigned to a role in the story and were then told to play the story that they had just heard. Research found that children were not able to recall stories completely until the age of 8 years old when they are able to recall the sequence of the story and specific aspects of the story. The story comprehension of children in prep and grade one is facilitated when they are involved in thematic-fantasy play (Pellegrini & Galda, 1982; Roskos & Christie, 2001). This finding supports the need for play-based curriculums within the first years of primary schooling in order to enhance the development of a child’s narrative competence. Children in the fantasy play group recalled the most aspects of the story and sequenced events (Pellegrini & Galda, 1982).

A correlational study was conducted by Long, Bergeron, Doyle and Gordon (2006) into the relationship between the frequency of participation in play activities and a child’s school readiness. A convenience sample of 71 children aged 4.5 to 6 years old was used. The findings highlighted the significant impact of play on a child’s school readiness skills in terms of: pretend play aides the development of abstract thinking important for written and verbal language, cognitive skills and introduces a child to social expectations within classroom environments (Long et al., 2006). The connection between play and school readiness skill acquisition is consistent with Reilly’s views that play sets children up for their future occupations (Reilly, 1969).

Through her studies, Smilansky (1990) observed several similarities between the skills a child needs for socio-dramatic play and those required for school integration. In socio-dramatic play, the ability to problem solve requires the ability to imagine, and the child must concentrate to stay in the play. Playing out roles within socio-dramatic play requires cognition and judgement and experiences in social engagement activities (Smilansky, 1990).
Research supports the use of play-based programs in the preschool years (18 months – 5 years) and the positive impact that this has on a child’s academic, social and language skills (Bellin & Singer, 2006; Diamond et al., 2007; Smilansky, 1990).

Self-regulation.

The concept of self-regulation is becoming increasingly important in a child’s school readiness and is an emerging concept within early education. Boekaerts and Corno (2005) suggested that researchers have struggled to define and operationalise self-regulatory abilities over the past two decades concluding that self-regulation is not a straightforward concept. Pintrich (2000) describes self-regulation as monitoring, regulating and controlling by a child of their cognition, motivation and behaviour guided by their goals and environment. Self-regulation comprises a complex set of functions, all which have their own domains including cognition, problem solving, metacognition, motivation, volition and conceptual change (Boekaerts & Corno, 2005). Children who have difficulties with pretend play often have deficits in self-regulation, social engagement and sensory processing (Roberts et al., 2018).

In the systematic review conducted by Boakaerts and Corno (2005) the theories around self-regulation were argued to all share common assumptions when related to education. This common element is: students who self-regulate their own learning can engage actively in the process of meaning associated with emotions, thoughts and feelings. Also, theories assume that biological, contextual, developmental and individual characteristics can all influence the ability to self-regulate (Boekaerts & Corno, 2005). In early childhood research, there are different views on the way in which children develop self-regulatory abilities, with views focusing on a child’s self-directed activity choice and symbolic play as impacting on self-regulation.

In a study on four year old’s metacognition and self-regulatory abilities by Robson (2010), a large shift in metacognitive regulation was found during pretend play activities.
accounting for nearly three quarters (74%) of metacognitive knowledge, regulation and emotional/motivational regulation. Robson (2010) discusses the possible attributes to this being the role children adopt during pretend play; the need to communicate, negotiate, plan, monitor and control behaviour. Robson highlighted that there may be a shift from a pre-occupation in metacognitive strategies; planning and monitoring during play leading to more emphasis on metacognitive knowledge when children later reflect on it.

Pretend play is supported as a precursor for the development of school-readiness skills including self-regulation.

**International pre-schools.**

Nicolopoulou (2010) stated that attempts to place play-based curricula into preschool settings in America were weakened in two ways. Firstly, many people believed that play is a naturally occurring part of childhood that does not need to be facilitated by adults. Secondly, preschools often attempted to set up play in classrooms that was structured and children were limited in the way they could use their imagination (Nicolopoulou, 2010).

Common elements of play-based curricula in preschool settings have been described by Trawick-Smith (2008) in a review of classroom design. Trawick-Smith reported three centre designs which promoted development and learning within enriched classrooms: 1) logical arrangement of space and materials (loud activities further away from quiet spaces, like objects placed in the dramatic play corners); 2) open plan design (allows some separation between play centres) and 3) stimulus shelters (also referred to as quiet spaces). Authors have reported that most children spend at least 45 minutes planning their play, designating roles, setting up spaces, negotiating and discussing themes therefore time is crucial when implementing play-based programs (Trawick-Smith, 2008).

Adopting a High/Scope program was a focus of many Head Start Programs across the US. A High/Scope program incorporates free play within designated play spaces (dramatic
play corner, block corner, quiet spaces) however this has now been adapted to include literacy and learning based elements, using specific guidelines for adult intervention. A key element of this program is its plan-do-review concept in which children are encouraged to plan, negotiate and develop play themes, carry out the play and review during group time, discussing what they have played (Trawick-Smith, 2008). Benefits of a High/Scope program on a child’s development and learning were evident however criticisms of the ‘teacher questions’ used to guide the play was found to interrupt the play behaviours and were often outside the child’s play goals and interests (Trawick-Smith, 2008).

Previous work conducted by Schweinhart and Weikart (1998) assessed/compared three preschool curriculum models (The High/Scope program, direct instruction and a traditional nursery (kindergarten) school) using 68 children living in poverty (aged between 3 and 4 years) randomly assigned to one of the three groups. The High/Scope program involved the use of an open framework and the ‘plan, do, review’ concept in which the children and the teacher planned activities together. Direct instruction involved teachers providing instructions and classroom activities were sequenced. The traditional nursery (kindergarten) involved children initiating activities/play and teachers responding to them. Children were followed up when they were aged 23 years. At follow up, results revealed that the High/Scope program and the traditional nursery (kindergarten program) had advantages over the direct instruction group. Two significant advantages included children/youth having fewer emotional disturbances during their schooling and felony arrests (Schweinhart & Weikart, 1998). Findings from the study suggest that early childhood education should not only focus on academic preparation but also helping children to make decisions and problem solve through play.

In a study by Barton (2015) four children with disabilities (between 36-72 months) participated in a play program run by teachers within a kindergarten. Two play coaches were
used in this training to train the four preschool teachers. Training included: imitation, discriminating pretend play from other forms of play, object substitution, imagining absent objects and assigning absent attributes. Teachers then had individual sessions with the four children, and also what they called ‘generalised’ sessions where they observed the child in free play. All children increased their play skills following the intervention (Barton, 2015). Children were able to maintain their pretend play skills even after the sessions had concluded and there was no direct support from teachers. Therefore, this contributes to the research on the positive impact of pretend play in pre-schools for typically developing children and children with developmental delay/disability.

**Australian pre-schools framework.**

The Early Years Learning Framework is a key component to the pre-school practices within Australia. The Early Years Learning Framework includes principals, practices and guidelines for early childhood educators to support the development of children from birth to five years (Belonging, Being & Becoming- The Early Years Learning Framework for Australia, 2009). The framework is based on the concepts of ‘Belonging, Being and Becoming’. The outcomes discussed in this framework include: Children have a strong sense of identity, children are connected to their world, children have a sense of wellbeing, children are confident and involved in their learning processes, children can use their language to be strong communicators (Belonging, Being & Becoming- The Early Years Learning Framework for Australia, 2009). This framework endorses play as a means to reach these outcomes.

Typically developing children naturally develop the ability to understand, engage and be motivated to play in the pre-school years. For children with developmental delay/disability they do not have the same ability to understand, engage and be motivated in play. Research highlights that the social play skills of children with developmental delay/disability are
significantly impaired (Nadar-Grosbois & Viellevoye, 2012). Along with developmental delay and disability, pretend play in children with Autism Spectrum Disorder has been found to be significantly impaired or absent (Baron-Cohen, 1987; Hobson et al., 2009; Libby et al., 1998; Rutherford, 2003; Rutherford et al., 2007; Spitzer, 2008; Wing et al., 1977) Children with developmental delay and disability require additional supports when entering specialist school settings, including modifications and adjustments to curriculum (Department of Education and Training, 2016). Therefore, in order to support the needs of these children, the inclusion of pretend play programs within specialist school settings needs to be considered.

Schools

Play-based Curriculums and Programs within Specialist School Settings and Mainstream

Thus far, literature has been discussed into the benefits of pretend play in childhood development, particularly language and social competence, the role in learning, focusing on narrative and literacy as well as the role of pretend play for children with developmental delay and disability. Pretend play and its importance within the pre-school environment has been considered. This literature review will now focus on the role of play-based learning within school curriculums to further enhance a child’s development and learning. As research on play-based curriculums in specialist school settings is minimal, literature related to mainstream schools will also be discussed.

Play-based Curriculum within Specialist School Settings

Australian context.

One study has been conducted using the ‘Learn to Play program’ within a specialist school setting for children with disabilities and developmental delay.

There are no other play programs used for specialist schools in Australia reported within the literature. ‘Learn to Play’ is a program focused on developing the play skills of
children up to six years of age with a range of disabilities including autism, language impairment and developmental delay (Stagnitti, 1998). The aim is to develop children’s ability to spontaneously initiate play and develop pretend play skills similar to their expected developmental level (Stagnitti, 2009). The principles of Learn to Play are to start at the child’s play level (assessed by a play assessment), gain the child’s focussed attention, use repetition with variation to embed play ability, gain emotional engagement of the child in play, model the play, respond to the child, step back as the child takes over the play (Stagnitti, 2010). Results from the use of this program show a consistent improvement in a child’s language, social skills, increased initiation and sequencing resulting in increased time in self-initiated play (Stagnitti, 2009). The six key skills focused on in the ‘Learn to Play’ program include: play scripts, sequences of play actions, object substitution, social interaction, role play and doll/teddy play (O’Connor & Stagnitti, 2011).

In a study by Stagnitti, O’Connor and Sheppard (2012), the Learn to Play program was implemented in a specialist school setting in regional Victoria with the aim to investigate the change in relationship between play, language and social skills of children aged 5-8 years pre and post participation in the Learn to Play program. A sample of 35 students aged 5-6 years in their first year of primary school were involved in the study with all participants having an intellectual disability and some children also having a diagnosis of autism and or developmental delay. The study included an intervention group of 19 children, who all participated in the Learn to Play Program and a control group (16 children) who participated in traditional teaching methods (O’Connor & Stagnitti, 2011). Two teachers were involved in implementing the Learn to Play program within their classroom settings. A therapy team (including occupational therapists and speech therapists) were involved in the study. The children participating in the study were assessed on the Child Initiated Pretend Play Assessment (play) (Stagnitti, 2007), Preschool Language Scale (language) (Semel, 2003),
Penn Interactive Peer Play Scale (PIPPS) (social skills) (Fantuzzo et al., 1995). Therapists and the teachers participated in the ‘Learn to Play’ training sessions conducted by Stagnitti prior to commencing the study. Teachers were intensively trained in facilitating the play program and facilitating the six key skills of Learn to Play with the students. The program begins on the child’s play level and children’s play ability was assessed prior to commencement. Children participated in the program in small groups (4-7 students). The therapists and teachers used video modelling of themselves participating in play sequences to demonstrate the play to the children. The students began each session in a large group where they viewed the play videos that they would be playing that day. There were four play stations that children remained within for that session. The stations included: home corner, transport play, construction play and doll play. One child was nominated as the ‘reporter’ for that play session and was assisted to take photos of the play. The photos were then reviewed during group time. Children participated in the program for one hour, twice a week for six months. Play scripts that were used during the play program were embedded into their weekly curriculums. Children were then assessed using the same measures as baseline after six months of participating in the play program. Results indicated that children in the intervention group significantly improved in social skills (social interaction (47% increase) and social connection (36% increase) as well as language skills and object substitution which increased by 27% from baseline, respectively). Children in the intervention group became more connected with their peers whereas children in the comparison group demonstrated more play disruptive behaviours and socially disconnected behaviour (O’Connor & Stagnitti, 2011; Stagnitti, O’Connor & Sheppard, 2012).
Play-based Curriculums within Mainstream Settings

In general, debates over the role of play in early childhood curriculum are prevalent throughout the literature (Cheng, 2010; Weinberger & Starkey, 1994) within the main consensus supporting the role of play within preschool settings (Ashiabi, 2007; Cheng, 2010; Christie & Enz, 1992; Kowalski, Wyver, Masselos, & de Lacey, 2005; Pellegrini, 1980; Rosenthal & Gatt, 2010; Samuelsson & Fleer, 2009; Schrader, 1990; Stagnitti & Unsworth, 2004; Tizard, 1976; Trawick-Smith, 2008; Umek, & Musek, 2001). However, research related to play curriculums within primary school settings is limited and largely unsupported. Therefore, the international context will be considered, followed by research in Australia.

International Context.

Christie and Roskos as cited in Singer et al. (2006) discussed the two major shifts in policy in the United States in the 20th century which resulted in two outcomes. The first being the strong focus on reading difficulties leading to new perspectives on reading instruction including a strong emphasis on direct, repetitious reading. Secondly, the most presented argument within literature is the rise of early childhood academic standards and the needs of children to meet these (Christie & Roskos, 2006). Many teachers limit the amount of symbolic play in favour of these specific academic skills as they do not understand how play can be utilised to achieve educational objectives (Schrader, 1990). The NAEYC Position Statement on Developmentally Appropriate Practice in the Primary Grades (5-8 year olds) in the United States (reported by Rescorla, 1991) attempted to address the basic issues in early education. The NAEYC argued that the curriculum within this age group (5-8 year olds) should be focused on a child’s natural interests and motivations. Classroom projects (working on the same theme) promote collaboration, social skills and allow them to develop stimulating ideas around content (Rescorla, 1991). This was supported by the National Association of State Boards of Education (NASBE) who reported that children are being
exposed to academic instruction before they are ready and recommended that children’s learning between the ages of 4-8 years is shaped around cooperative learning practices, developmentally appropriate learning materials and parent-teacher collaboration to replace standardised testing and rigorous academics (Rescorla, 1991).

Prior to starting primary school, the primary occupation of a child is that of a player (Reilly, 1969) however when children enter primary school, their primary occupation shifts to include that of a student. It is then important to consider how children make this transition from a ‘player’ to ‘student’ and the implications if children are not able or ready to make that transition. Questions which were raised from the literature were: Can we expect children to naturally develop into their role of a student at the same time as their peers? (that is, at the age of 5 or 6 years)?; Secondly would it be beneficial to integrate the role of a ‘player’ into a ‘student’, helping to build those foundational learning skills in which many children, particularly those with developmental delay and disability.

In a study by Wallace and Russ (2015) the relationship between early pretend play, divergent thinking and academic achievement in school-age girls was examined. Thirty-one girls participated in the study and were assessed at four years of age and eight years of age using the Affect in Play Scale and a divergent thinking activity (Wallace & Russ, 2015). Early pretend play predicted later intelligence, with girls who had higher pretend play exhibiting higher mathematic ability and divergent thinking (Wallace & Russ, 2015).

Shifts in early education frameworks have begun to emerge within the literature in more recent times to recognise the importance of providing enriched learning environments which not only focus on meeting academic standards but also inclusion of supporting a child’s development. The Cambridge Review in the United Kingdom is calling for early years classrooms in schools to make room for play in order to enhance social connection, language and engagement in the classroom (Martlew, Ellis, Stephen, & Ellis, 2010).
Curriculum changes in Northern Ireland have led to the development of the ‘Early Years Enriched Curriculum’ (EC) implemented in 2007. The EC is described as a child-centred, play focused curriculum which aims to promote individual learning, emergent literacy activities such as shared reading, structured play to promote language and social skills, gross motor play and the encouragement for children to be self-directed learners (Sproule et al., 2001). Results of the pilot studies demonstrated that children in EC curriculum’s compared to children in traditional curriculums significantly performed higher overall on Walsh’s Quality of Learning Instrument (QLI). Observations detail the increase in independence, confidence, social interaction and more time for teacher student interaction within the classroom within the EC groups (Sproule et al., 2001). Teachers agreed on the value of circle time, structured play sessions, gross motor play, practical mathematics and shared reading time. Teachers mentioned that they were uneasy about the changes to the curriculum at the start however with training and adequate support they became more comfortable with the new changes (Sproule et al., 2001). This demonstrates the need for teachers to be properly trained, supported, and provided with adequate resources for changes within classrooms to be effective. The findings from this curriculum change sparked the development of a concept called ‘playful structure’ by Walsh, Sproule, McGuinness and True (2011) with a less formal implementation but based on the consensus that playfulness is involved in all activities throughout the day, even if activities are not directly play focused, teachers need to adopt high levels of playful characteristics in their engagement and teaching of students.

A research project by Martlew, Stephen and Ellis (2011) aimed to build on the work of Stephen et al. (2009) who investigated the concept of ‘active learning’ within six classrooms across Scotland. One classroom chose to adopt the ‘soft start’ view that focuses on children choosing their activities for a particular day with the other five classrooms starting off with group time and then children rotate around play-based learning activities in
groups (Martlew et al., 2010). Results indicated that children were enthusiastic and motivated about open ended tasks where they had some opportunities for choice (Martlew, Stephen, & Ellis, 2011). Children from lower socioeconomic backgrounds engaged in less peer interactions and spent more time focusing on transitioning between activities than children from higher socioeconomic backgrounds, highlighting the need for more modelling and scaffolding of ideas for children from lower socioeconomic backgrounds to promote learning and facilitation (Martlew et al., 2010). All six teachers from this study agreed that the active learning approach was a better way to teach compared to traditional practices and they enjoyed the flexibility in teaching, which it provided (Martlew et al., 2010). This supports Pollard’s views that children perform best when they feel in control of their learning (Filer, Pollard & Thiessen, 1997).

Kersten et al. (2006) investigated 32 play-based curriculums ‘Enriched Curriculums’ compared to 38 traditional learning curriculums piloted in Northern Ireland schools. The quality of learning was observed using a structured observational tool – Walsh and Gardner’s ‘Quality learning instrument’ (QLI). The enriched curriculum involved facilitated activities throughout the day such as story time, songs, free play, practical literacy for example, mathematics using puppets or games and shared writing with peers. Results indicated that the enriched curriculum significantly outperformed the traditional structure on all nine areas of the QLI (motivation, concentration, confidence, independence, higher order thinking, multiple skill acquisition, well-being, social interaction and respect)(Kersten et al., 2016). Researchers suggest the need for balance between a play-based, practical and written tasks and equal distribution of child and teacher-initiated tasks. It is important to note that pretend play was not the focus however played a role in the outcomes of the study.
Play based curriculum within the Australian context.

In order to provide evidence into benefits of a play-based curriculum in a mainstream primary school setting within Australia, a recent study was conducted by Stagnitti et al. (2015) comparing play-based curriculum with traditional school curriculums over a two-year period in a low socioeconomic area in Victoria, Australia. Measures were used to assess the children’s play, language and narrative competence pre and post study. Significant improvements were made by the children in the play-based curriculum group in terms of increases in elaborate play and narrative re-tell ability. Children in the play-based curriculum had significantly higher scores in play, narrative language, language and less social disconnection at follow up. The group did not differ in object substitutions (Stagnitti et. al. 2015). The researchers added additional measures of language and non-verbal ability. Researchers found that children in the play-based curriculum group showed significant improvements in narrative re-tell. In contrast, children in both the play-based and traditional curriculum showed improvements in vocabulary, grammar and non-verbal IQ over time. However, children in the play-based curriculum showed significantly less scores in grammar than the traditional group during their first assessment but caught up to scores of the traditional group over the course of their first 6 months of schooling. Therefore, it can be concluded that children participating in the play-based curriculum did significantly benefit in terms of increased narrative skills, grammar and non-verbal abilities (Stagnitti et al., 2015).

The Australian Developmental Curriculum (Walker, 2007), has been embraced within a number of primary school settings throughout the country and marks the beginning of a formal play/developmental based curriculum within primary schools in Australia. The Developmental Curriculum attempts to reflect what is known about the whole child, incorporating social, emotional and cultural influences into a student’s learning (Walker, 2007). The Developmental Curriculum involves setting up a space in which children can
grow and develop as well as learning through practical, motivating activities including a
dramatic play area (home corners, post office, block/construction etc.), sensory areas of clay
and play-dough (inside or out), a collage creating area, a writing workshop table, a reading
area, computers, constructive and manipulative equipment, individual spaces (cosy corners)
and group time. The emphasis is on making these spaces rich with literacy and numeracy
opportunities (for example, paper, lists, journals, clip boards, ‘work in progress signs’ and
easels). Developmental objectives for the group are set as a whole (e.g. social, cognitive
language) and learning objectives related to maths, English science are developed. There are
a number of stages teachers/schools move through in developing the program and
implementing into the classrooms. The Developmental Curriculum focuses on the notion of
“assessment strategies” rather than standardised testing. Walker (2007) encourages reflection,
self-assessment/peer assessment, portfolios and sharing of information between teachers,
peers and parents. Although the Developmental Curriculum has been adopted within a
number of primary school settings in Australia, there is no known evidence supporting the
curriculum as yet.

**Summary.**

The Developmental Curriculum has similar aspects to the play-based program
reported by Stagnitti et al. (2015) in terms of the theoretical underpinnings around allowing
children to control their learning and teacher’s assistance through scaffolding, directing and
explicit teaching methods. Stagnitti et al. (2015) focused on the assessment of specific
developmental outcomes (oral language, play skills and narrative competence) related to
learning in developmentally vulnerable children (lower socioeconomic backgrounds). The
play-based curriculum reported in Stagnitti et al. (2015) incorporates the ‘plan do review’
concept highlighted by Trawick (2008) as a key component in play-based curricula set up.
In summary, as Nicolopoulou et al. 2006 (cited in Singer et al. 2006, p. 125) state “The challenge is to integrate the play element into the curriculum in ways that are structured but foster the children’s own participation and initiative, so that children infuse them with their own interests and concerns”. It is evident within the literature that the implementation of play-based curricula can have significant impacts on a child’s development and learning including key elements such as enhanced language skills, social competence, narrative abilities, confidence, motivation and engagement in learning (Drewes & Schaefer, 2010; Frost et al., 2008; Iverson, 1982; Kersten et al., 2016; Martlew et al., 2011; Sproule et al., 2001; Stagnitti et al. 2011). Overall, research highlights that in order for play-based curriculum to be effective a level of structure is needed within the curricula; teacher guidance and direction, and combining methods of traditional teaching and learning in a play-based environment where children are provided with a sense of control. The following section will consider these aspects and discuss the role of teachers and therapists in supporting play-based curriculums within classroom settings.

The Role of Teachers and Therapists in Supporting Play-based Curriculums within Classroom Settings

The basic requirements to facilitate a play-based curriculum in a classroom setting includes teachers and/or therapists providing time and space to play, providing resources for play, discussion around the play context (Stagnitti, 2010; Stagnitti & Unsworth, 2004), scaffolding, modelling and interaction during the play (Goodman, 1997; Saracho, 2002; Stagnitti, 2010; Stagnitti & Unsworth, 2004; Uren & Stagnitti, 2009). Play is considered to be an important area for childhood development and learning in the early years and as mentioned above, play-based curricula are widely facilitated within preschool settings (Berkhout, 2010; Nicolopoulou et al., 2006; Roskos & Christie, 2001; Saracho, 2002). However, as discussed in previous sections, play-based curriculums within specialist school
settings are rarely reported. Therefore, literature into the teacher roles in implementing play into mainstream schools/kindergarten/preschool classrooms will also be considered in this review.

Many teachers are reluctant to include symbolic play activities within primary school classrooms as they do not fully understand how they can use it to reach academic objectives (Schrader, 1990) and are often unsure how to implement play into their primary school curriculums (Moyles, Adams, & Musgrove, 2002). In a review into the value of play in schools, King (1986) stated that the challenges in implementing play into curriculums is firstly, the way that teachers integrate play with curriculum content. Secondly, teachers must remember that each child will react differently to the same situation, they will experience different learning, emotions, expressions and abilities during the play activities (King, 1986).

A study recently published by Nolan and Paatsch (2018) investigated the impact of a play-based program within a mainstream curriculum on two foundation (first year of schooling) teachers experiences, including any possible challenges. The challenges were: that teachers felt they were under resourced; they needed to be innovative with ideas; organisation of the room was difficult (challenged by a large open space); setting boundaries and new expectations on the children (e.g. respecting others toys); connecting learning experiences with the play; and the difference in teacher interactions between the play room and the classroom (Nolan & Paatsch, 2018). Teachers felt as though they needed to be accountable to the curriculum, ensuring that they were meeting learning goals through play-based curriculum (Nolan and Paatsch, 2018).

In Smilansky’s research with disadvantaged Israeli children, teachers were trained by the researcher prior to the intervention, with training dependent on which group teachers were facilitating the play. Teachers who were required to provide only play experiences to the students responded better to their role than teachers who were required to be active
participants in the play and had difficulty understanding the method of ‘active intervention’ as this was beyond their usual teaching experiences. Once teachers were trained they felt more comfortable with active participation, however teachers still reported some reluctances (Smilansky, 1968).

Adult involvement in play is also highlighted by a number of researchers as a crucial element to play-based learning (Saracho, 2002; Smilansky, 1968; Stagnitti, 2010a; Uren & Stagnitti, 2009). Saracho (2002) used a qualitative study of five classroom teachers (of 5 year olds) to focus on the roles teachers adopt to support literacy development through play. Videotapes of teacher’s actions and interactions during the play provided the data, however the number of recordings and duration of observation was not identified by the authors. Seven roles were defined: discussion leader, storyteller, examiner, instructional guide, informer, learning centre monitor and decision-maker. It is important to consider that play was facilitated in these classrooms however a structured play-based curriculum was not involved.

In a study of teacher roles in supporting the socio-dramatic play of 5-6-year olds in Israeli classrooms, Korat, Bahar and Snapir (2002) found similar results in that teachers must be involved in the interactions and act as a supporter to the children in terms of problem-solving, finding solutions, involving their interests in play and providing modelling of high-level thought processes.

As discussed in previous sections, ‘Head Start’ programs are one of the most largely reported programs to target the development of children from lower socioeconomic backgrounds and prepare them for schooling. Implementing these programs have encountered many problems including: the reliance on teacher education as many teachers feel under equipped to handle behaviourally challenged children who are disengaged, and a lack of financial resources, research expertise and support (Bierman et al., 2008). Headstart REDI
was designed to provide support to staff through manualised enrichment curricula, hands on
demonstration of activities, specific instructional strategies and mentoring. Teachers reported
to REDI trainers regarding the lessons and activities used, teachers then answered 10
questions around the quality of their implementation on a 3 point scale. The average rating
was 2.8 indicating that teachers felt comfortable and that children were engaged in lessons
(Bierman et al., 2008). However, researchers did not report on which aspects of training/areas
of support enhanced their capabilities at running the head start program.

In a study exploring teacher’s use of symbolic play as a teaching-learning medium for
literacy development in the US, Schrader outlines the pressures discussed around narrowly
defined academic skills (Schrader, 1990). Using a naturalistic inquiry, Schrader studied three
education centres (3,4 and 5-year old’s) and four teachers across these centres. All four
teachers used extending interactions (facilitating the play) with the children than re-directing
(choosing an activity they would like the children to engage in). The study provided evidence
that teachers vary in their ability to facilitate the play of children, they cannot use pre-planned
sessions and must think creatively. This study supports Vygtosky’s ‘zone of proximal
development’ as teachers were able to facilitate children to go beyond their expected
developmental levels in literacy-based tasks. Schrader highlighted the need for teacher
education, including, how to create learning play settings and appropriate teaching/learning
strategies to facilitate learning (Schrader, 1990).

Hadley (2002) (School of education, University of Wales) argued for a reassertion of
the importance of play for learning throughout primary school and beyond. Hadley’s
arguments have grown from his work with student teachers who largely believed play only
served a role in early years of education. In terms of teacher roles, Hadley described the
concepts of ‘outside the flow’ and ‘inside the flow’ (Hadley, 2002, p14.). Outside the flow
refers to the teacher remaining outside the play but providing prompts and discussions when
needed. Inside the flow refers to the teacher taking on a ‘role’ within the play with the child. Both methods were found to be effective, dependent on the situation (Hadley, 2002). In the case of Smilansky’s research, teachers involved in active play with children would be ‘inside the flow’ and teachers who provided the play experiences would be ‘outside the flow’. Hadley (2002) referred to the narrowing of training provided to novice teachers and the focus in recent times on specific teaching methods for the lack of play imbedded into school curriculums in the UK.

In Australian research by Nolan and Paatsch (2018) found teachers needed to justify and be accountable for the learning experiences they were providing in the play-based curriculum compared to a traditional learning environment. They faced many challenges, including challenges to their identity as teachers, resources, managing spaces, controlling behaviours and placing boundaries on play. More professional development is required to assist teachers who are running play-based programs, as well as further research into how teachers negotiate play-based programs, a concept often unfamiliar to them (Nolan and Paatsch, 2018).

Currently there is no research into teacher roles in facilitating play-curriculums within specialist schools. In the reported literature, the focus on specific academic skills and achievement on standardised tests is detrimental to the support of play within curriculums. The need for teacher education and training is a key component to implementing play-curriculums (O’Connor & Stagnitti, 2011; Saracho, 2002; Walker, 2007) as well as adult interaction, modelling of high-level thinking, offering choice and including children’s interests in play (Saracho, 2002; Smilansky, 1968; Stagnitti, 2007; Stagnitti, 2010a; Uren & Stagnitti, 2009) in order for teachers to facilitate learning through play-based programs.
This literature review will now discuss the importance of program evaluation and the Gervais Framework - Model of a Dimensions of a Program within the context of play-based program implementation into specialist school settings.

**Program Evaluation**

Program evaluation, in a broad definition, is an approach used to evaluate the effectiveness of a program. In the early 1990’s program evaluation was focused on measuring the attainment of goals and objectives around a specific program to determine its effectiveness (Patton, 2002). This type of program evaluation refers to ‘summative evaluation’, a term developed by Scriven (1967) along with the term ‘formative evaluation’ (as cited in Weiss 1998). Summative evaluation relates to evaluation after the program or curriculum is finished and provides information on the outcome of the research (Weiss, 1998). Formative research on the other hand, is focused on information produced during the development of the program or curriculum to assist in improving the program/curriculum (Weiss, 1998). Formative evaluation has become increasingly popular in recent times as researchers are becoming more focused on the process in which programs are conducted rather than simply the outcome (Langbein, 2016). This change demonstrates that the way in which programs are implemented and conducted is important for the accountability and effectiveness of a program (Langbein, 2016). In this current research, a largely formative evaluation will be conducted on the process in which a school implements a Learn to Play Program within their existing curriculum, the challenges and positives they face throughout the implementation. As this study is focused on the experiences of participants, a formative evaluation approach is essential in determining whether the Learn to Play Program would be effective within a range of special/SDS school settings. Summative evaluation is also an important component to this current research, due to the measurement of children’s outcomes.
in terms of development and learning after participating in a Learn to Play Program within their school settings.

Moscoso, Chaves, Vidal and Argilaga (2013) discussed the common elements which should be included in a program evaluation. The authors described the evaluation process as occurring in three stages- before the program, during the program and after the program. The first of these stages involves a needs assessment, evaluation objectives and design of the research. The second stage (during the program) involves evaluation of the implementation and the third stage (post program) involves evaluation of the outcomes of the program (Moscoso et al., 2013). These stages include both a summative and formative approach to evaluation, working in a continuous interaction. This current study will include all three stages of program evaluation and this will be discussed throughout the thesis.


In any program evaluation, it is essential to adopt a framework to shape the evaluation process and understand how the structures, policies, principles and elements of the program interconnect to influence the development of the program (formative evaluation) and the outcomes of a program (summative evaluation) (Weiss, 1998).

The Gervais Framework was developed in the 1990’s following the pressure placed on groups who were offering programs to clients to offer more efficient, effective programs (Gervais, 1998). The accountability and structure of programs were also questioned at this time therefore the need to develop more relevant program evaluation frameworks were essential within the health field (Gervais, 2010). The Gervais Framework was developed as a tool to organise and understand process of a program and relevant outcomes (Gervais, 2010). The Gervais Framework was chosen for this study due to fact that it is a dynamic model that allows information on a program to be updated as time passes, therefore allowing the program to remain current (Gervais, 2010). Within the Learn to Play Program, allowing for
information from the schools to be updated and further evaluated as time passes on throughout the school year was essential. This allowed elements to be considered and contrasted between and amongst the schools. The framework takes into account a range of dimensions (Gervais, 2010), ensuring that it is a comprehensive evaluation tool. The dimensions can be considered in one evaluation, or they can be considered within their own context, therefore allowing the program to be examined from a number of angles (Gervais, 2010).

The Gervais Framework includes five dimensions: Structural, Operational, Strategic, Systemic and Specific. In addition to the five dimensions, two other concepts are essential in the framework, which allow for the formative evaluation of all aspects of the Learn to Play Program— the Needs and the Constraints of a program. The ‘Needs’ help to identify the course of action required based on the requirements of a program/setting. The needs of a program are often established through a needs assessment at the beginning of the program evaluation. The needs help to determine the best course of action for a particular program or setting, for example a play-based program within a school setting. The needs are not only identified at the beginning of the program evaluation, but throughout the evaluation the needs continue to emerge, therefore provide relevance for the program over time (Gervais, 2010). The ‘Constraints’ refer to the unavoidable circumstances which may exist within a program/setting that may influence the achievement of goals or outcomes (Gervais, 2010). The Constraints relate to each Structural, Operational, Strategic and Systemic dimension of the framework and similar to the needs, the Constraints can be identified at the beginning of the program as well as throughout the program evaluation, therefore providing information about potential negative impacts on the program over time (Gervais, 2010). The five dimensions will now be discussed in further detail. Figure 2.1 presents the main components of the Gervais Framework.
Figure 2.1. Main Components of the Gervais Framework
The dimensions.

The Structural dimensions of the program refer to the resources of a program (materials, physical, financial, informational or human) and its structure (Gervais, 2010). The structure therefore considers the required elements to implement the program and includes factors such as sharing of roles, the nature and implementation of a program and the way that a program is organised (Gervais, 2010). The Structural dimension is key in the implementation of a program. The Operational dimension refers to the processes and activities of a program and the behaviours of its members. This includes elements such as the working environment, the stages of the program, delivery of service, commitment of the members, and practices related to the program implementation (Gervais, 2010). This also includes productively and satisfaction of those involved. The Strategic dimension of the framework is another critical dimension the framework and includes the program’s policies and management practices. This dimension relates to the regulation and maintenance of the program and includes elements such as management of the program, supervision, leadership and accountability within a program (Gervais, 2010). The Strategic dimension reflects the learning occurred during the program, the ability to solve problems and regulate the program.

The Systematic dimension relates to the external environment and how a program interacts and adapts to the limitations within the external environment. Elements include things such as the accessibility of a program, liaison with other programs and with the community, legitimacy and external influences which may impact on the development and implementation of a program (Gervais, 2010). Finally, the fifth dimension of the framework is the Specific dimension which focuses on the short, medium- and long-term impacts of a program as well as any results found throughout the program implementation. The Specific dimension is influenced by the Structural, Operational and Strategic dimensions as well as the
Systemic factors and Needs of a program. The Specific dimension includes the results based on the program objectives (Gervais, 2010) and the impacts produced by the program whether direct, indirect, beneficial or undesirable. This dimension involves the researcher conducting summative evaluation to determine the impacts of the program.

Gervais (2010) presents a critical analysis of the framework. Strengths discussed within the article include: the ease of understanding and use of the framework, the framework provides a complete vision of a program, considers the complexity of a program and offers flexibility to be adapted and applied to different situations. Gervais also presents the weaknesses of the framework, including confusion between dimensions and their overlap, potential costs in terms of energy, time and resources, the complex nature of the framework can include feeling unsure where to start and how to cover all aspects (Gervais, 2010).

Gervais (2010) states that “the framework reflects an effort to modelize the complex interaction that exists between a program, its environment, and the individuals involved” (p.169). This reflects the connection to the PEOP model (Person, Environment, Occupation and Performance), which will be used in conjunction with the Model of Dimensions of a Program to shape the results of this research.

Conclusion

In conclusion, there is a vast amount of research that supports the link between pretend play and childhood development, including language development, social competence and learning (cognition/problem solving, school readiness, literacy development and narrative competence) for typically developing children (Barton, 2015; Berkhout, 2010; Bergen, 2002; Campbell, 2018; Drewes & Schaefer, 2010; McAloney & Stagnitti, 2009; McCune-Nicolich, 1981; Nicolopoulou, Barbosa de Sá, Ilgaz, & Brockmeyer, 2010; O’Connor & Stagnitti, 2011; Pintrich, 2000; Wallace & Russ, 2015). For children with developmental delay and disability, research is existent but limited. Pretend play is well
understood for children in the preschool years and is often a natural part of a child’s day at preschool, within the community or at home. When children enter mainstream primary school, play based curriculums have been implemented in some schools, with research showing that these curriculums support children’s learning. For children with developmental delay and/or disability who are functioning at a much lower level compared to typically developing peers, pretend play needs to be an important component to their education once they enter primary school due to the benefits it can have on a child’s development and learning.

Research into play programs and interventions within specialist schools is limited, particularly in Australia. Currently, the Learn to Play Program (Stagnitti, 2007) is the only play-based program within specialist and SDS school settings in Victoria, Australia, that has been reported. Given the strong link between pretend play and developmental outcomes including the positive impact on language, social, narrative and literacy development (Berkhout, 2010; Campbell et al., 2018; Fung & Cheng, 2017; Li, Hestenes & Wang, 2016; Nicolopoulou, 2010) it is critical to consider pretend play as a means to promote the development and learning of children with developmental delay and disability within a specialist school setting.

Curriculum within specialist schools needs to be modified and adapted to suit the needs of children with cognitive impairment (Department of Education and Training, 2016). Children attending specialist schools are functioning well below their typically developing peers in many areas. Hence, its critical to introduce play-based programs designed at teaching children how to engage in play, become more socially connected with peers and develop their language skills, all outcomes demonstrated through research into the Learn to Play Program (O’Connor & Stagnitti, 2011).
Based on these findings, Chapter Three will now present the Methodology for Study One which explores the first stage put forward by Moscoso et al. (2013), the needs assessment of a play-based program within a special/SDS school setting for children with developmental delay and disability.
CHAPTER THREE

STUDY ONE

Chapter Two outlined the literature surrounding pretend play, its relationship with childhood development and how pretend play can support development of children with developmental delay and/or disability. Program evaluation and play-based programs within the pre-school and school environment were explored. There was a dearth of literature on research investigating play programs in special and special development schools (SDS), which are targeted at improving developmental outcomes of children with developmental delay and disability. As mentioned in Chapter Two, special schools are designed for children with mild intellectual disability whilst SDS schools are for children with moderate to severe intellectual disability (The Association for Children with a Disability, 2015, “for students with an intellectual disability”). Both special and special development schools fall under the banner of ‘specialist’ schools in Victoria, Australia (Department of Education and Training, 2016). Therefore, these terms will be used interchangeably throughout this thesis. As highlighted in Chapter Two, children with developmental delay and disability need additional support to enhance their learning when compared to typically developing children.

The gaps identified in the literature included a lack of research into play-based programs and interventions within specialised school settings for children with developmental delay and disability. Currently to date, there is only one play-based program (the Learn to Play Program) reported in the literature within a specialist school in Australia (O’Connor & Stagnitti, 2011). More research is required into play-based programs within specialist school settings to determine their effectiveness in improving development and learning of children with developmental delay or disability, and to evaluate how play programs could be implemented within a special/SDS school setting, based on the fact the research supports the strong link between pretend play and its impact on child development.
and learning. The role of staff (including teachers, therapists and integration aides) in implementing play-based programs and interventions within school settings is also an area where research is lacking. This study is part one of this research and addresses the gaps in the literature by exploring the perceptions of classroom teachers, therapists and integration aides of play-based programs within special/SDS school settings. This program evaluation will follow the process set out by Mosocoso et al. (2013). Part One will determine the needs of special and SDS schools in relation to a play-based program within the curriculum. For the purposes of Study One, teachers, therapists and integration aides will be referred to as “school staff”. The term staff will be used to represent the participants in this study.

Before the methods of the study are presented, the roles of the staff will be described. The role of classroom teachers includes supporting students to achieve specific learning outcomes through preparation and delivery of learning materials (Human Services, 2017). Responsibilities of a classroom teacher include but are not limited to; providing a safe environment for learning, meeting the needs of a diverse range of students, teaching, monitoring, reporting and evaluating on student progress (Human Services, 2017). The role of integration aides within a school setting include (but are not limited to) supporting children with additional needs in the classrooms setting to participate in learning tasks, self-care, supervision of children with behavioural needs and the development of learning resources (Raising Children Network Australia, 2013, p. 2). According to the Disability Services Commission, Department of Education (n.d) the role of therapists within special and SDS schools are to support the students, parents, carers and school staff to achieve positive outcomes for the students in relation to their learning. Classroom teachers, therapists and integration aides work with children every day in school settings. They support children to meet their learning goals, learn appropriate behaviours, and improve their social and language skills. Therefore, exploring and understanding their perceptions and beliefs about whether a
play-based program is valued within a specialist school setting is crucial to investigating whether a play-based program could be implemented in special and SDS schools.

This chapter will firstly discuss the research questions and aims of this study followed by the methods including participants, instruments, the procedure and the data analysis process. This chapter will then discuss the results of the research followed by the discussion, limitations and strengths of the study and conclusions. It is important to note that both terms ‘play’ and ‘pretend play’ will be used throughout this chapter. The general term of ‘play’ is included in the research questions, aims and questionnaires in Study One as this study aimed to investigate any play-based programs within the schools (not limited to programs with a pretend play focus). The research questions and aims are presented below.

**Research Questions**

1) Do school staff value play-based programs in the development and learning of children with developmental delay/disability?

2) What is the current state of play-based programs in specialist schools in Victoria, Australia?

3) What supports and resources do specialist schools require to implement a play-based program?

**Aims**

1) To investigate the current views of school staff about the importance of play in childhood development and learning for children with developmental delay and disability

2) To investigate the current understandings of school staff in regards to developmental components which are essential for learning (language, social skills, emotional development and cognitive development)
3) To understand school staff’s current understanding and/or experience in the Learn to Play program or other play-based programs

4) To investigate the supports/resources school staff require to imbed a play-based program in a specialist school setting.

Participants

The sample consisted of 31 staff members employed across seven specialist schools across Victoria, Australia. The 31 staff members consisted of 18 teachers, two assistant principals, eight therapists and three integration aides. The inclusion of teachers, assistant principals, therapists and integration aides were vital in this research project as all of these staff have roles within the school curriculums and would be likely to be involved in the implementation of a play program within the classroom and/or therapy settings.

The specialist schools included three metropolitan schools (one special school and two SDS), two regional schools (special schools) and two rural schools (special schools). For the purposes of this research and to maintain the confidentiality of schools participating, the schools will be referred to as Metro One, Metro Two, Metro Three, Regional One, Regional Two, Rural One and Rural Two. Regional Two, Rural One and Rural Two were not involved in the focus groups due to a lack of availability, therefore they will be referred to in the questionnaire results, including the rich data from the questionnaires.

Inclusion criteria.

The inclusion criteria included staff involved with the early year grades at each school as a play program was more likely to be implemented with prep (first year of formal schooling in Victoria, Australia). All 31 staff members who participated in this study were involved with the junior school (prep, grade 1 or grade 2) or were likely to be involved in the junior school in 2015. Teachers were included in this study as they knew the children, were often running play programs and could comment on any generalisation of skills outside of the
play room. Therapists (including speech pathologists and occupational therapists) were included in this study as they were often involved in assisting with the play programs and could comment on any generalisations of skills outside of the play room. The therapists were also trained in supporting child development, therefore they could provide opinions of the value of play in learning and development. Integration aides were included in this study as they were often involved in running the play programs alongside teachers and therapists. Integration aides also spent a lot of time supporting children’s needs and development in the classroom setting, therefore their views were important. Assistant principals were included in this study as they had an active role in the requirements of curriculums and the structures involved with school systems.

**Exclusion criteria.**

Staff members who were not involved with the junior school at the time of Study One OR if they were not likely to be positioned in the junior school in the following year, 2015.

**Instruments**

A questionnaire of 15 questions and a semi-structured focus group were the instruments used to collect data.

**Questionnaire.**

The questionnaire can be found in Appendix A. The questionnaire was developed by the researcher and the principal supervisor and based on the aims of this research. There was no existing questionnaire that would match the aims of this study, therefore this questionnaire was developed in line with the principles from Fink and Kosecoff (1985) on survey design. These principles included: ensuring the questions are meaningful to the reader, using standard English, making questions as specific as possible to ensure the participant can answer it, avoiding bias through the choice of appropriate words and phrases and finally, having the questions reviewed for any bias (Fink & Kosecoff, 1985). The questionnaire was checked by
the researcher and the principal supervisor for double-barrelled questions and any potential bias prior to its use.

The questionnaire included three multiple choice questions, seven questions using a 10-point Likert Scale (1 being the lowest and 10 being the highest rating) and five open ended questions. An example of a multiple-choice question was: Do you feel as though a play-based program would benefit children with particular diagnosis (i.e. autism or intellectual disability) more than others? A 10-point Likert scale was chosen for this study to allow for more variation in participant responses and also as it is one of the most widely adopted approaches in survey research, particularly when looking at the attitudes of participants (Brill, 2011). In line with the recommendations from Fink and Kosecoff (1985) the researcher ensured that the descriptions given on the Likert Scale were as close to the Likert number as possible to avoid any confusion with terms. For the Likert scale questions, the participant rated their view on the importance of play in relation to a developmental component listed in the questionnaire. The developmental components included: overall development, language, social interaction, cognitive development and learning. The two remaining Likert questions included the value of play for children with a disability or developmental delay and the value of play in a special or SDS school setting, as well as the importance of play for children with developmental delay/disability and play within the school environment. The first open ended question asked school staff whether they were currently running the Learn to Play Program or another play-based program within their schools. The questionnaire took approximately 30 minutes to complete (see Appendix A). The questionnaire included questions related to play-based programs in general and two questions related specifically to the Learn to Play Program (Appendix A).
Focus groups.

The participants also partook in a semi-structured multiple category design focus group conducted by the researcher in a designated room within their school setting. A multiple-category focus group design was chosen for this research as it allowed the researcher to compare views of staff in two ways. Firstly, the views of teachers, therapists and integration aides could be compared within the one school, and secondly, views of school staff could be compared from one school to another (Krueger & Casey, 2000). This differs from a single focus group as two comparisons are being made.

Focus groups were found to be the most valuable tool for interviewing because the school staff were familiar with each other and had similar demographic characteristics, which is required for a focus group to be successful (Jarvis & Barberena, 2011). Focus groups were also chosen to allow ideas to emerge from a group of people with different perspectives (Krueger & Casey, 2000), allowing a deeper understanding of factors influencing play and play programs for a range of different individuals working in a school (teachers, integration aides and therapists). Focus groups can open up communication and allow participants to talk freely with others (Jarvis & Barberena, 2011). The focus groups took approximately 30 minutes for each group. During the semi-structured focus group, participants were asked to comment on questions related to the aims of this research (see Appendix B for a copy of the semi-structured focus group questions). It was essential that during the focus groups the researcher allowed the participants to express their views freely and allow for any themes to emerge.
Procedure

Ethical approval.

Approval for this study was obtained through the Deakin University Human Research Ethics Committee (DU-HREC) (see Appendix C) and the Department of Education and Early Childhood Development (DEECD) (see Appendix D).

Recruitment.

Once approval was confirmed from Deakin University, seven school principals were contacted by phone or email and invited into the research. These seven schools were purposively sampled by the researcher due to their staff (teachers, therapists and/or integration aides) expressing interest in the research to the researcher at a professional development training day run by the researcher in the year prior. Purposive sampling involves recruiting participants based on the fact that they possess attributes or experiences that the researcher is interested in (O’Dwyer & Bernauer, 2013). Purposive sampling was chosen for this research as the schools possessed a shared interest in setting up or running play programs within their school. Therefore, the schools were chosen based on their characteristics rather than randomly selected from the population (O’Dwyer & Bernauer, 2013).

Plain Language Statements (PLS) and consent forms (Appendix E) were provided to the principal at each school to distribute to the relevant staff members (that is prep teachers, therapists and integration aides involved in the prep (first year of school) classrooms), four weeks prior to the commencement of the research.

Thirty-one participants (teachers, therapists and integration aides) gave their consent through the return of written consent forms to the researcher. Consent forms were mailed by each school, directly to the researcher prior to the focus groups or questionnaires being conducted. The consent forms were then stored in a locked cabinet in the researcher’s office.
Data collection.

Two weeks prior to the commencement of the study, the researcher contacted staff who had consented to be in the study and invited them to identify a suitable time for a focus group and to inform staff that a questionnaire would be posted to them before the focus group. The researcher posted the questionnaire to a key contact at each school to distribute to participants. Participants were asked to either complete the questionnaire prior to the day of focus groups or to bring the questionnaire to the focus group to complete prior to the group. The researcher allowed 30 minutes to complete the questionnaire before the focus group at each school. Approximately half of participants completed the questionnaire in their own time prior to the day of focus groups, with the other half completing the questionnaire in the room with the researcher and other focus group participants prior to the focus group beginning. The questionnaire took 30 minutes to complete.

Four focus groups were conducted with Regional One, Metro One, Metro Two and Metro Three. Due to time restraints, Regional Two, Rural One and Rural Two were unable to complete a focus group. The focus groups were conducted at a time that suited each school, with each of the four schools nominating 3:30pm when the school day had finished. The school principal organised a space within the school for the groups. The focus groups were completed in a quiet location, away from noise and distraction so that confidentiality could be maintained and accurate recordings made. The focus groups took place in school meeting rooms. Each focus group was audio-recorded and each participant gave consent for the researcher to audio record. The researcher informed all participants that privacy and confidentiality would be assured as coding would take place and no participant names would be used. All audio files were then transferred to a secured network file following the focus group. The researcher made field notes while attending each school for the focus group.
Field notes were recorded in a journal, which was later used in the analysis of findings and stored in a locked filing cabinet alongside the consent forms and questionnaires.

**Data Analysis**

This was a mixed methods study that included quantitative data from the questionnaire and qualitative data from the focus groups. Quantitative data from the questionnaires were analysed using descriptive statistics (mean, standard deviation and mode) calculated through SPSS version 22.

The qualitative section of this study was guided by phenomenology. Phenomenology is an approach aimed at understanding human experience (Creswell, 2009) through the exploration of participant’s feelings, perceptions and lived experiences (Guest, MacQueen & Namey, 2012). Phenomenology provides rich data as it allows participants to speak freely in relation to a topic and allows the researcher to develop patterns and connections of meaning (Creswell, 2009). In relation to this current study, the phenomenon is the experience of staff in relation to play-based programs within special/SDS school settings. Phenomenology is therefore relevant to this study in order to gain insight and explore the participants views in relation to pretend play and childhood development.

In line with a phenomenology approach and the interest in other’s lived experiences, a thematic analysis was conducted in order to let themes emerge from the data which reflect the experience of participants (Creswell, 2009). The thematic analysis is critical in qualitative research in order to reveal the major findings across the Study One, including both individual and group perspectives (Creswell, 2009). This works with a formative evaluation approach as the researcher was able to gain rich data in terms of participant’s experiences and value of pretend play in childhood development, which helped to gain insight throughout the process of implementing a Learn to Play Program in school settings. The thematic analysis was conducted on the questionnaires at an individual level, and the focus group data (transcripts)
on a group level (e.g. Metro One data was analysed as one group, Metro Two data was analysed as another group). The analysis involved reviewing the themes and connections numerous times through systems such as mind mapping and colour coding, with the researcher refining the findings when new themes or connections were formed. Themes were then collated from the questionnaires and the focus groups (some of which emerged from both sources of data) and were then presented as the major findings from Study One.

The researcher ensured that the transcriptions of the focus groups were read at least four times each, or until a point of closure was met. The principal supervisor also read the transcriptions, so that triangulation could occur through peer checking.

**Gervais Framework analysis.**

Quantitative and Qualitative data were then added to The Model of the Dimensions of a Program (Gervais, 1998). The Model of the Dimensions of a program is a framework used to evaluate the elements of a program to determine its effectiveness (Gervais, 2010). In this research, the model was applied to play programs and helped to guide the program evaluation stage one, two and three (Moscoso et al., 2013). The Model of the Dimensions of a program includes five dimensions: Structural, Operational, Strategic, Systemic and Specific (Gervais, 2010). In addition to the five dimensions, the Needs and the Constraints of a program are also addressed (Gervais, 2010). This model was chosen as a framework to evaluate play programs within a school environment, including school policies, resources, operational factors within the school system, behaviours, external influences within the environment and the needs and constraints of each school system represented by the staff in the focus groups. Following the analysis of the quantitative and qualitative data from the focus groups and questionnaires, data was explored on each school setting separately, and themes emerged within the Structural, Strategic, Operational, Systemic and Specific dimensions of each school’s framework. This allowed the researcher to determine common and different themes amongst
schools and determine how the Needs and Constraints of each school setting may impact on the implementation of a play-based program.

**Results**

Table 3.1 presents the descriptive statistics from the questionnaire which related to the participants’ views on the importance of play in childhood development, language, social, cognition and learning in the school environment. All participants valued play in a child’s development. Table 3.1 highlights the school staff’s ratings for the value of play in childhood development. All school staff rated play as important in childhood development, with a score of nine or above (the Likert Scale was 0 to 10 with 1 being the lowest rating and 10 being the highest).

Table 3.2 presents the school’s individual ratings of play and its importance in language, social, cognitive development and learning. Rural One and Rural Two rated these the highest, followed by Regional One. The two rural schools valued play the highest, with a rating of 10. This needs to be interpreted with caution as there was only one participant from each of the rural schools participating in the study. As these two rural schools were small (under 100 students) they only had one teacher to participate in the study. These two schools did not have therapists working at the school at the time of the study. Metro Three had the lowest rating of play and its importance in childhood development.
Table 3.1

*Overall Mean Ratings for Questionnaire Results (n = 31)*

<table>
<thead>
<tr>
<th>Importance of play in childhood</th>
<th>Importance of play in language development</th>
<th>Importance of play in social development</th>
<th>Importance of play in cognitive development</th>
<th>Importance of play in relation to learning in the school environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>9.48</td>
<td>9.32</td>
<td>9.58</td>
<td>9.16</td>
</tr>
<tr>
<td>Mode</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>0.81</td>
<td>0.90</td>
<td>0.56</td>
<td>1.82</td>
</tr>
</tbody>
</table>

Note. Std. Deviation = Standard Deviation; 10 = Highest rating; 1 = lowest rating.
Table 3.2

The Importance of Play in Childhood Development: Individual School Results ($n = 31$).

<table>
<thead>
<tr>
<th>Schools</th>
<th>Importance of Play in Childhood Development M (SD)</th>
<th>Importance of Play in Language Development M (SD)</th>
<th>Importance of Play in Social Development M (SD)</th>
<th>Importance of Play in Cognitive Development M(SD)</th>
<th>Importance of Play in Relation to Learning in the School Environment M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>9.6 (0.89)</td>
<td>9.8 (0.45)</td>
<td>9.8 (0.45)</td>
<td>9.6 (0.89)</td>
<td>9.6 (0.89)</td>
</tr>
<tr>
<td>(n = 5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metro Two</td>
<td>9.8 (0.41)</td>
<td>9.7 (0.75)</td>
<td>9.7 (0.52)</td>
<td>9.6 (0.55)</td>
<td>9.3 (0.82)</td>
</tr>
<tr>
<td>(n=6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metro Three</td>
<td>9.0 (1.73)</td>
<td>9.7 (0.58)</td>
<td>9.7 (0.57)</td>
<td>9.7 (0.57)</td>
<td>8.7 (1.52)</td>
</tr>
<tr>
<td>(n=3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metro One</td>
<td>9.5 (0.55)</td>
<td>9.0 (1.55)</td>
<td>9.3 (0.52)</td>
<td>9.3 (0.52)</td>
<td>9.2 (0.75)</td>
</tr>
<tr>
<td>(n=6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural One</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>(n=1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Two</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>(n=1)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Regional Two</td>
<td>9.2 (0.83)</td>
<td>9.1 (0.78)</td>
<td>9.4 (0.73)</td>
<td>9.1 (0.83)</td>
<td>8.6 (1.58)</td>
</tr>
<tr>
<td>(n=9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9.5 (0.81)</td>
<td>9.3 (0.91)</td>
<td>9.6 (0.56)</td>
<td>9.5 (0.68)</td>
<td>9.1 (1.16)</td>
</tr>
<tr>
<td>(n = 31)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Std. Deviation = Standard Deviation; 10 = Highest rating; 1 = lowest rating; n= Number of staff.
Table 3.3 presents the individual school results on the importance of play for children with Developmental Delay/Disability. Rural One and Rural Two again rated this the highest score, followed by Regional One.

Table 3.3
**The Importance of Play for Children with Developmental Delay/Disability: Individual School Results**

<table>
<thead>
<tr>
<th>School</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>9.60</td>
<td>5</td>
<td>.89</td>
</tr>
<tr>
<td>Metro Two</td>
<td>9.83</td>
<td>6</td>
<td>.41</td>
</tr>
<tr>
<td>Metro Three</td>
<td>9.00</td>
<td>3</td>
<td>1.73</td>
</tr>
<tr>
<td>Metro One</td>
<td>9.17</td>
<td>6</td>
<td>.75</td>
</tr>
<tr>
<td>Rural One</td>
<td>10.00</td>
<td>1</td>
<td>.</td>
</tr>
<tr>
<td>Rural Two</td>
<td>10.00</td>
<td>1</td>
<td>.</td>
</tr>
<tr>
<td>Regional Two</td>
<td>9.22</td>
<td>9</td>
<td>.83</td>
</tr>
<tr>
<td>Total</td>
<td>9.42</td>
<td>31</td>
<td>.85</td>
</tr>
</tbody>
</table>

Note. Std. Deviation = Standard Deviation; 10 = Highest rating; 1 = lowest rating; N= Number of staff.

Table 3.4 highlights the individual school results on the importance of play for children with developmental delay/disability in terms of varying or equally important compared to typically developing children. This was a multiple choice on the questionnaire where participants rated: 1 = play varies from children with developmental delay/disability compared to typically developing children; 2 = play is of equal importance for children with developmental delay/disability and typically developing children. The data is presented in terms of a count of responses of each staff member at each of the seven schools. Rural One and Rural Two rated this the highest, followed by Metro Three. Participants rated the importance of play for children with developmental delay and/or disability highly, and
reported that the importance of play varies between children with developmental delay and/or disability and their typically developing peers. Rural Two was the only school to rate play of equal importance for children with developmental delay/disability compared to typically developing children.

Table 3.4

The Importance of Play for Children with Developmental Delay/Disability, Variation or equally important compared to Typically Developing Children; Individual School Results

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>1 – Play varies</th>
<th>2- Equally important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Metro Two</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Metro Three</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Metro One</td>
<td>6</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Rural One</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Rural Two</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Regional Two</td>
<td>9</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>8</td>
<td>23</td>
</tr>
</tbody>
</table>

Note. 1 = play varies from children with developmental delay/disability compared to typically developing children; 2 = play is of equal importance for children with developmental delay/disability and typically developing children; N= Number of staff.

Four of the seven schools were running a Learn to Play Program at the time of this study (Regional One, Metro One, Metro Two and Regional Two). Two schools were not running any play-based program (Rural One and Metro Three) and one school was running a
play-based program. Table 3.5 presents the results of the number of staff currently running Learn to Play programs or other play-based programs within their special/SDS schools. This was a multiple-choice question on the questionnaire. Participants were asked to select ‘Yes’ if they were currently running a Learn to Play Program within their school settings. ‘No’ if they were not currently running a Learn to Play Program in their schools or ‘Other’ if they were running another play-based program. Eighty-four percent (84%) of staff were running the Learn to Play Program, whilst 13% were not. Three percent (3%) were running another play-based program or framework which was called ‘The Walker Learning Approach’ by Kathy Walker (Walker, 2011) (Rural Two).

Table 3.5

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, Learn to Play</td>
<td>26</td>
<td>83.9</td>
</tr>
<tr>
<td>No play-based program</td>
<td>4</td>
<td>12.9</td>
</tr>
<tr>
<td>Other play-based model</td>
<td>1</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Note. N= Number of staff.

Table 3.6 presents participant’s preferences in terms of the location of Learn to Play Programs. Eighty four percent (84%) preferred the Learn to Play Program to be imbedded into classroom settings, 13% preferred to run the program during allocated therapy time and 3% preferred to run the program to take place during both therapy and classroom time. All schools except for Metro Three listed their preferred setting for a Learn to Play Program to be within the classroom. Metro Three listed during therapy time as their preference.
Table 3.6

Preferred Setting for a Learn to Play Program within the School

<table>
<thead>
<tr>
<th>Setting</th>
<th>N</th>
<th>Percentage of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imbedded into classroom</td>
<td>18</td>
<td>83.9</td>
</tr>
<tr>
<td>During therapy time</td>
<td>6</td>
<td>12.9</td>
</tr>
<tr>
<td>Both therapy and classroom</td>
<td>5</td>
<td>3.2</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note. N = Number of staff.

Qualitative Data

Open question data to the questionnaire showed a wide range of views for the value of play in a special and SDS school environment. These open question responses were analysed with the focus group data. Five themes emerged from the data (derived from focus group analysis and open-ended questions on the questionnaires), the five themes included:

- We value play
- Child led play is a challenge
- Confidence to be a co-player with children with diverse play skills
- Positive parents promote successful programs
- Barriers to play programs

**We value play.**

All staff viewed play as an important part of childhood development. Staff talked about the benefits of play as a “foundation for development which brings a sense of safety to
children” (Metro Three). They viewed play as having a positive benefit in relation to children’s social development, language development, confidence building, literacy and learning and flexibility in thinking. A sample of their view is below:

“It kind of encompasses a whole heap of things, language development, social interaction, confidence building. So it plays a really integral role in their general development” (Metro One).

“I think it's a crucial part of a child's development… the other part of it is to help literacy and have a literacy focus” (Metro Two).

“Play flow’s through to other areas of their learning and can also assist with their communication” (Regional One).

**Child led play is a challenge.**

The focus groups revealed the tension between the nature of play being spontaneous and child driven verses the need for structure within a classroom. This tension was dominant across the four focus groups. Two of the schools had organised their play programs using steps for each session, including visual supports and video modelling of play activities for each session (Metro Two and Regional One). Metro Two had a clear outline of the structure of their play sessions as noted below:

“All the students come in, they go through the rules... They watch the videos [of play]...then they play”.

In two of the schools (Metro Two and Regional One) children were involved in choosing where they would like to play however the availability of choice of play activities was decided by school staff prior to the play-based sessions.
Throughout discussions with Metro Two, Metro Three, and Regional One, the difficulty in maintaining a balance between control (structure of play sessions) and child-initiated play was evident.

“I imagine, well as a teacher, you always want to control the situation so not leading the play is really important” (Metro Two).

“I think.. it [encouraging a child’s self-initiation of play] can be difficult.. with the focus on putting the structure in place…sometimes staff can get stuck in that mindset...so that in some ways has restricted the opportunities to follow the child's lead" (Metro Three).

“I saw a girl take a bucket out of the sandpit the other day and she was saying that she was going on a treasure hunt...She was told by a member of staff that buckets [are] for the sandpit and that she had to go and put it back in the sandpit and so she couldn't go on a treasure hunt which was a bit sad really” (Metro Three).

Staff at Regional One also discussed these challenges in relation to experiences they had in structured teaching programs, “Maybe some of the experiences that we've all had running such a structured program [within a school] are limiting our play program” (Regional One).

Metro One discussed strategies to overcome the difficulty in maintaining balance between structure and child initiated play at their school.

“It’s about following their [child’s] interest first and then move on to different sorts of thing". Rather than saying “no, we’re only playing with a tea set”.... as they will “hurl it out the window”... “I think sometimes when it's just one play resource you can get a bit limited and so you need to be able to pull on the other stuff” (Metro One).
Metro One were more comfortable in following a child’s lead and being involved in spontaneous play when compared to the other schools. They had thought through balancing structure with child-initiated pretend play in their school setting and how this structure would work with the children in their school as noted below:

“I guess it's probably actually structured a little bit different for every class, based a bit on the make of the kids in the class. I think for some of the higher kids [children with more pretend play skills] it's pulling lots more of the skills from Learn to Play so they might actually be focusing a lot [on] substitution or something like that. For some of the preps I think, because they're quite a lot lower [in their pretend play skills], just getting them to interact with toys in a functional way and there's lesser because of the imaginative stuff because they're just not there yet. But I guess it kind of depends on each class how it's run.

Staff at Metro Two were able to articulate what needed to be changed in their approach in order to follow a child’s lead and encourage self-initiated play. They noted that play takes a “shift in thinking” for staff to have playful interactions with children, recognizing that “Oh this isn’t about me, this is about you [the child]” (Metro Two).

**Confidence to be a co-player with children with diverse play skills.**

Children with disabilities or delay often display splinter skills in their development. For staff, therapists and integration aides, being aware of the children’s different play levels was a challenge but an important component in supporting a child’s development.

“Some of them are able to play with their peers and will initiate interactions....others need more one on one support” (Metro Two).
“In my class we kind of split it up ... depending on where their pretend play skills are...one group might go into the playroom .... and one group might go to the multisensory room ....We're just working on a variety of play skills.” (Metro One).

Metro One discussed the challenges of supporting children with lower level pretend play skills, as a Special Developmental School they had children with the lowest IQ levels completing the program.

“There’s not a lot of imaginative play in some of the preps just because of their developmental level”. (Metro One).

The following quote from Regional One represents the complexity of running play-based programs within a Specialist school setting and the challenges that adults faced when knowing how much to facilitate play with children at different play levels, as many children had varied play ability within this cohort of children.

“Do we still make her a part of that? Do we wait? Are we stressing her out and everybody around her? How far do we push” (Regional One).

This challenge was articulated by all the staff in this study in relation to being able to target the children’s skill levels appropriately, and by following the child’s lead and knowing how much to facilitate a child’s play. The ability to facilitate play as a co-player also overlaps with the tension between structure and facilitating self-initiated play ability in children with developmental difficulties. The staff shared information about their challenges in knowing how to be a co-player with children. “How much do you help?”, “Do you “Direct [play] or what?” (Regional One).
This demonstrates the shift it takes for staff to be able to remove themselves from a structured learning environment to play-based approaches. Metro One demonstrated more confidence in being a co-player and following the child in pretend play,

“It might be that we start with a tea party or something but then a bear falls over and hurts his head and so okay, we’ll go and grab the doctor stuff”.

“Last year we used the Learn to Play book a lot as like a springboard [for play activities] but then I think we've got into the groove now”.

The challenges of being a co-player whilst supporting the varied levels of children’s play ability within school settings was evident, demonstrating the complexity of being able to set up and maintain a play-based program with a special/SDS school setting. All schools highlighted their need for training, particularly in these areas of being a co-player with children and supporting varied levels of children’s pretend play skills.

“...we probably feel more confident being able to do that [be a co-player] if we were provided with the training. We would feel like "okay we can stand by our decision to allow that to happen instead of feeling a bit insecure and "oh everyone needs to stay and do this". (Metro Three)

Positive parents contribute to successful programs.

Staff highlighted the crucial role for parent education when running play-based programs. For one school where parents were not actively involved they [parents] “did not like it” (Metro Three). Regional One stated that for many of their families, “play is not a priority” and that families do not always understand the value of play and “early play is often not encouraged amongst families”. In contrast to this, they had some of the parents actively involved in the play program and had been provided with positive feedback, emphasising the need for parent education so that they understood what play was being used for,
“Our parents this year have been really good... they've taken it on... We've explained and shown some parents the room and explained to parents why we're doing what we're doing” (Regional One).

Metro Two were also aware of the importance of parent education, similarly too Regional One in relation to educating the parents on the reasoning of the play program, and how play is connected to the development and learning for their child “you need to have those discussions with the parent and say "your child is doing this in the playroom" (Metro Two).

All schools valued the parent perspectives and understood the need to educate and inform parents regarding any program within the school, however the ways in which schools did this varied for each school.

**Barriers to play programs.**

The time-consuming nature of implementing a play-based program within their schools was discussed by two schools; Metro Two and Metro Three. The nature of having small groups of children placed with adults meant that the programs were often very staff intensive.

“A couple of years ago with early entry did have a strong focus on play skills however we actually just found that the ratios don't probably facilitate it because to actually teach our children to play is actually very staff intensive”.

Staff were finding this challenging, particularly Metro Two who had no allied health assistance within their play program due to budget constraints.

“We started with having a speech and an OT being in the room so there were four people, so one at each activity set but as things have changed and budgetary requirements we don't have any allied health in there, which I find I struggle with that”.
Metro Two, who had been running a Learn to Play Program for two and a half years at the time of Study One felt as though the program “Doesn’t feel important enough now. I don’t know why”.

Metro Two also discussed the challenge of time in relation to developing and maintaining a play-based program.

“I think it's vital that whoever is doing it has time release to do it properly because when you think about the equipment that you need for the sets, the organising of the sets, the videos, the training, it's a huge thing and any school has to allow time release to do it because otherwise it won't get done”.

Metro Three highlighted the fact that staff are not trained in Learn to Play and are not confident in implementing the Learn to Play Program within their curriculum,

“The teachers need training...by someone like yourself and then they would need the input from leadership as to how they’re going to implement it within their classrooms”.

Metro One highlighted the need for further support around the assessment of play, pre and post program implementation. They discussed this in terms of differences in understanding the current Symbolic Imaginative Developmental Play Checklist (SIPDC) (Stagnitti, 1998),

“I think that also even just doing it last year, people had different understandings. So I'd do an assessment thinking the kids was a level C and somebody else would go "oh, no they're at level E" and it's like "that's a big difference."
The Model of the Dimensions of a Program

The Model of the Dimensions of a Program (Gervais. 1998) was used in this study to evaluate a play program within special/SDS schools. The researcher conducted a second level of analysis using the Gervais Framework. According to Gervais (2010) the framework works well when integrated with both quantitative and qualitative approaches, in this study that being questionnaires and focus groups. Analysis within the Gervais Framework allows the researcher to deepen their analysis into a particular area of a program, widen their analysis, and to get a global view of a program and its needs and constraints (Gervais, 2010). The data relating to a play-based program in school settings were examined and allocated to the Structural, Strategic and Operational dimensions as well as the Needs, Constraints, Systemic and Specific dimensions of the Gervais framework. Four schools were referring to the Learn to Play program in their focus groups. Components of this program include staff knowledge of the 10 key play skills, which are: play scripts, sequences of play actions, object substitutions, doll/teddy play, role play, social play, attributing properties to objects, reference to absent objects, problems in the play script, predicting what will happen. These play skills are presented developmentally in the Learn to Play book with examples of play activities for each developmental level of play. The aim of Learn to Play is to facilitate in children the ability to self-initiate a child’s ability to spontaneously pretend in play.

Figure 3.1 presents the overall results within the Model of the Dimensions of a Program in the evaluation of play programs within special/SDS schools based on the qualitative data. Overall, the Gervais Framework highlighted that staff need support if they are to run a play-based program within their schools. They faced a number of constraints including the need for training and resources. The Structural components of the program were quite clear, with schools needing space and time. The strategic and operational components highlighted that the play-based program needs to link within the existing
curriculum, including learning goals and the focus of the school’s learning needs. The external environment plays a large role in the success of a program, particularly with parent involvement. Results and outcomes demonstrate that schools value play and play based programs in learning, however they require support to integrate this within their curriculums.
Processes, Activities and Behaviours
- Communication between staff is essential
- Motivation from staff to participate in play interactions
- Staff can link play to learning goals of children
- Learn to Play is targeted developmentally at children’s play levels
- Located in classrooms, therapy
- Understanding the 10 key skills
- Assessment of play
- Co-player

Constraints
- Being able to follow a child’s lead
- Providing enough support but not directing play.
- Supporting children with lower play skills
- Children with lower play skills often distract children with higher play skills.
- School Resources: Staff intensive, time, budget limitations, timetable

Resources & Structure
- Play materials
- 1 hour per week minimum
- Staff (teachers, therapists and integration aides)
- Learn to Play manual is required
- Visuals (each play scene)
- Time collaboration between staff
- Physical Space, a separate play room or space to embed play into the classrooms.

Policies and Management Practices
- Safe environment
- Key contact at the school
- Monitoring of the program by researchers
- Learn to Play model linked to learning goals
- Learn to play fits within the school’s learning program
- Curriculum guidelines
- Support from Principal
- Budget for staff training

Needs
- Staff training
- Understanding of the 10 key Learn to Play skills
- Being able to target play skills at appropriate level for the child
- Training on integrating the 10 key skills into sessions
- Training on how to administer a play assessment
- Training on how to be a co-player
- Need for more volunteers to run the groups
- Communication with parents to increase parent understanding

Results/Impacts
- Staff valued the benefits of play and the valuable role play has in childhood development.
- The set-up of a play-based program and how to engage in spontaneous child led play within a special or SDS school setting was challenging.
- Staff have to be versatile and flexible in their play choices.
- Supporting varying levels of play ability within a classroom was challenging for Staff.
- Staff felt as though they needed more training in being a co-player so that they could support children with varied levels of play skills.
- Staff need to be trained in facilitating play in children with varying play levels.
- Staff need time allowances to embed a play program within the existing school curriculum.
- Parent/caregiver involvement and understanding of the reasons for the implementation of a play-based program within their child’s school is important.

External Environment
- Communication with parents
- Parents lack understanding of play
- Technology – limited pretend play skills
- Play opportunities at home
- Kindergarten participation prior to school enhances play skills
- Socioeconomic status and resource availability of families to support play

Figure 3.1. The Model of the Dimensions of a Program: Study One Findings
Discussion

Results showed that 84% of staff participating were involved in a Learn to Play Program at the time of this study. The key findings included: school staff value play, they see it has value in childhood development including language, cognition and social skills. The assessment of play is challenging and staff require more support in this area if they are going to implement or continue to run play-based programs within their schools. Findings also show that parent involvement is critical for a program’s success so that it can be imbedded within the school curriculum and so that parents understand what play means for learning.

Staff discussed the benefits and challenges in running a play-based program in a special/SDS setting including; time, resources, having a space to play, confidence of staff in facilitating play, structuring sessions whilst allowing child-led play ideas, and knowing how to facilitate varying levels of play skills in a group.

Play is Valued

Staff at each school valued the benefits of play and the valuable role play has in childhood development. This view reflects the views of a number of researchers who reported that play and in particular pretend play, has positive influences on a child’s development, particularly in the areas of language development (Bergen, 2002; Stagnitti & Lewis, 2015), social competence (O’Connor & Stagnitti, 2011; Stagnitti, 2009; Uren & Stagnitti, 2009) and cognitive skills (Bergen, 2002; Berkhout, 2010; Drewes & Schaefer, 2010; Nicolopoulou, et al., 2006). Stagnitti and Lewis (2015) studied the impact of a child’s pretend play skills in preschool on their narrative language and semantic organisation when they reached primary school. The study revealed that children with stronger pretend play skills had better semantic organization skills and narrative re-tell (oral language) abilities in primary school (Stagnitti & Lewis, 2015). In a study by Li, Hestenes and Wang (2016) pretend play was significantly linked to the social skills of pre-school children attending a childcare centre in the US. A time
sampling procedure was used to assess the child’s frequency and type of pretend play, verbalisations and interactions. A social skills questionnaire was also completed by teachers. Results showed that pretend play was significantly linked with social skills, assertiveness and cooperation of children participating in the study (Li, Hestenes & Wang, 2016).

Co-playing to Facilitate Child-Initiated Play

Although staff valued the benefits of play in child development and its link with learning, the set-up of a play-based program and how to engage in spontaneous child led play within a special or SDS school setting was challenging. Metro One, a school who was already running a play-based program, were flexible in the way they implemented their play program, with each class running their play sessions slightly differently (some in the classroom and some in a separate play room). Staff at Metro One were more comfortable with following a child’s lead and engaging as a co-player with the child in play when compared to Metro Two (already running a play program), Metro Three (not running a play program) and Regional One (already running a play program). This versatility was driven from staff’s experiences and confidence in play-based interactions with children, for example, Metro One staff confidently discussed how they facilitated play-based interactions with children. The challenges of engaging children in play was highlighted by Nolan and Paatsch (2018) who studied the implementation of a play-based program into the foundation (first year) of schooling by two foundation teachers. The teachers involved in Nolan and Paatsch’s study found that interacting with the children in play-based learning was different to their usual interactions in the classroom. The teachers had to support children to participate in a range of play experiences but also allow children to make their own decisions about where they wanted to play, which was challenging (Nolan & Paatsch, 2018).

Although research into play-based programs in specialist schools is limited, it has been conducted in mainstream schools. Walsh, Sproule, McGuinness and Trew (2011)
conducted an eight-year evaluation within mainstream schools into a framework in Northern Ireland called the Early Years Enriched Curriculum Project (EC). The EC used a playful structure within the curriculum (Walsh et al. 2011). Playful structure placed an emphasis on the adult’s role in the interaction with the focus on: the teacher being outgoing and enthusiastic, preserving a light hearted tone and leaving room for spontaneous initiation of the child (Walsh, et al., 2011). The study concluded that imposing structure around child’s play was a challenging task for staff and they found some staff could not understand their role in facilitating structure whilst maintaining a playful approach (Walsh, et al., 2011). Walsh et al.’s study and the findings from this research into special and SDS schools highlight the challenges staff face in becoming a co-player and engaging in playful interactions.

**Play Ability of Children at Special/SDS Schools**

Metro One had children with a diverse range of skill levels, from children who could engage in pretend play to children whose play was exploratory and manipulation of objects. Staff therefore had to be versatile and flexible in their play choices. Children who attend special or Special Development Schools have lower IQs than children attending mainstream settings. Children attending special schools often have a moderate intellectual disability whilst children attending Special Development Schools have a moderate to severe intellectual disability (Association of Children with a Disability, 2015). Research shows children with higher cognition have higher pretend play skills (Athey, 1988; Whitebread et al., 2009), therefore staff involved in this study were supporting children on low play levels as well as low cognitive development. Staff therefore had to scaffold the play to support children to make choices and engage in different types of play, depending on their play skills.

Children within special and SDS schools have developmental difficulties with uneven skill development. Supporting varying levels of play ability within a classroom was challenging for staff. Staff felt as though they needed more training in being a co-player so
that they could support children with varied levels of play skills. This appeared to be particularly challenging for staff who had more experience in structured teaching environments compared with play-based interactions (Metro Three). A study by Farmer-Dougan and Kaszuba (1999) found children who engaged in higher levels of pretend play were easier to engage in play as a co-player than those with lower level play skills. Children with higher play levels had fewer periods of solitary play, and more ability to engage in and maintain meaningful social interactions than children with lower levels of pretend play ability (Farmer-Dougan & Kaszuba, 1999). A play program within a special school or SDS school would need to support a range of play ability levels from sensory-motor play, manipulation play, and explorative play to pretend play.

**Knowing a Child’s Play Skill Level**

Staff participating in this study highlighted the challenges in knowing what level a child’s play skills were at, whether they have any pretend play skills or whether children were in the pre-pretend stage of engaging in sensory and motor play. This lack of knowledge highlights the need for staff to be trained in the administration and scoring of a play assessment, which they can conduct at the beginning of their play program (or each school term). If staff completed a play assessment with each child prior to beginning a play program, they would have an understanding of where a child’s skill level was, what activities to introduce to children and what groups to allocate children into (for example, if a child was playing at a station with two other children, staff may decide to allocate children with similar play levels to the same station so that the staff member can scaffold the play and support children on a similar level).

This current study found that for play programs to be sustainable within special and SDS school settings, staff needed to be trained in the assessment of play and facilitating play in children with varying play levels. In the Strategic Dimension of Gervais, which considers
the organisational level, such as curriculum guidelines, and timetables, limited time within the curriculum meant that school staff were unable to run play programs for as long as they wanted to (see Figure 3.1).

**Staff Perceptions of Parents Understanding of Play**

Parent/caregiver involvement and understanding of the reasons for the implementation of a play-based program within their child’s school was noted by staff to be important to the success of such a program. Staff in the current study noted that some families did not value play in the home, and did not value play in the school. For the schools who provided information to parents about the play program, support of parents contributed to the sustainability of a play program within the curriculum as parents who had more of an understanding of the importance of play and how it impacts on development particularly for children with developmental delay and disability, assisted with the school play program. Parent’s understanding of play or providing developmentally appropriate play materials for their child influences a child’s play behaviour within a school setting (Malone, 1999).

Hornby (2011) reported on the importance of parental involvement in education, having a positive impact on behaviour and mental health of children, the relationship with the teacher/s and for the parents, and increased satisfaction and confidence in parenting (Hornby, 2011). Barriers to parental involvement included, personal factors (e.g beliefs, attitudes, background), child factors (e.g. age, whether a disability is present, behavioural factors), teacher-parent relationships (differing views, goals and attitudes) and social factors (political and economic factors) (Hornby, 2011). This aligns with the Gervais Framework as the ‘external environment’ plays a large role in the success of the program. Hornby suggests some activities which may improve the parental involvement within a program/school. These include: holding open days/nights, school performances, school fairs with the aim of making parents feel welcome and more comfortable (Hornby, 2011). For schools participating in this
study and wanting to conduct a play-program within their schools, some of these activities may be useful so that parents feel involved in the program.

**Limitations and Strengths of this Study**

This study included 31 participants and used a mixed methods approach with focus group data and a short descriptive questionnaire, therefore results can only be generalised with caution to other special and SDS schools. A strength of this study was the variation of participant backgrounds, demographic locations and participant roles within the school setting, for example, a teacher, therapist or integration aide. The variation between schools provided data on schools who were running a play-based program with those schools who were not and schools from a range of geographical regions. Saturation in data was reached as no new themes arose from the fourth focus group. There was potential bias in socially desirable answers on the questionnaires and focus groups as all schools participating in this research were interested in the Learn to Play Program prior to participation. Bias in terms of socially desirable answers in the focus group was reduced by ensuring that the principal supervisor reviewed the focus group questions, ensuring the questions were open and not leading, and that the questionnaires were designed based on Fink and Kosecoff (1985) recommendations for survey design. The questionnaire was checked by the researcher and the principal supervisor for double-barrelled questions and any potential bias prior to its use.

**Recommendations for Future Research**

The findings of this study help to address future development of play-based approaches for special and SDS school settings. In particular, the addition of pre-pretend and pretend play activities within a play-based approach would support a range of children with varied play abilities. Children with intellectual disability and other developmental concerns do have varied play abilities and attend special or SDS schools. Such a finding has implications for the Learn to Play therapy approach which has been used in specialist schools
in Victoria, Australia (O’Connor & Stagnitti, 2011). A high percentage of schools participating in this research (84%) highlighted that they were currently running a Learn to Play program within their special or SDS school setting. The Learn to Play program was originally designed as a therapist/parent/child intervention model and was not designed for school or group settings (Stagnitti, 1998; K. Stagnitti, personal communication, August 6, 2018). Therefore, research is needed on the implementation of the Learn to Play program within special and SDS school settings.

The need for further research on school resources such as play materials, staffing, physical space requirements, and flexibility within school curriculum was identified. The need for staff training within specialist school settings in order for staff to step into the role of a co-player, rather than a teacher and facilitator was highlighted as well as staff training in the assessment of play. Further research is also required to investigate the impact of play-based approaches on a child’s developmental skills and learning abilities in specialist school settings.

Conclusion

The first research question of this study was based on the value school staff place on pretend play and its role in child development and learning. Results demonstrated that Staff valued the benefits of play and how play can positively impact on various domains of development and learning throughout childhood. School staff viewed pretend play as a foundation for child development and understood the role it can play in enhancing a child’s social development, language, confidence building, literacy and learning and flexibility in thinking. Although school staff valued play, there were challenges in school staff’s comfort levels and confidence in supporting children with a play program. The second challenge was in the implementation of a play-based program within their current school curriculum. The challenges in implementing a play-based program within a specialist school setting were for
staff to balance the structure of sessions versus following a child’s lead, assessment of play and being a co-player while still managing a group that included children with different levels of play ability. Staff who were more confident in following a child’s lead and supporting varied play abilities, were more flexible and confident in their implementation of a play-based program. Participant’s ability to confidently target children’s play skills appropriately, manage a group-based play program and engage with children as a co-player impacted on participant’s view of implementing a play-based program in a special/SDS school setting.

The second research question was answered through the fact that the majority of the participants (84%) were already running a Learn to Play program in their school settings. The Learn to Play Program was originally designed as a one on one intervention with a child. However, schools and group-based settings were beginning to adapt the one-on-one approach for groups of children within special and SDS schools. The way in which schools implemented the Learn to Play Program was based on the Learn to Play Program principles, however each school adapted this to suit their current needs and time within their curriculum. The way in which the programs were run was structured differently for each school. The information gathered from this research question helped to determine the needs of the program in order to inform the second stage of the program evaluation. The needs/supports and resources to run a play based program, which was research question three.

Staff identified the areas where they required more training, particularly in how to engage in pretend play with children, assessment of play and how to build a child’s ability to self-initiate their own play. These areas are key components in the ability to run a successful play program, particularly in the areas of engaging with children with developmental delay and disability as well as supporting their play development (including their ability to self-initiate and develop their own play ideas). If school staff cannot engage and support the skill development of children, then a play-based program will not be beneficial or sustainable.
within a special/SDS school setting. Parental involvement in the play program contributed to the sustainability of the program as parents understood the program goals and how it was impacting on their child’s development. All schools recognised parental involvement as important, however to what extent varied amongst participants.

Study One highlighted that there was a need, then, to provide evidence and research into the effectiveness of Learn to Play as a group program in a special or SDS school for children with developmental delay and/or disability. This fits with Moscoso et al. (2013) who discussed the common elements in program evaluation as three stages. This study has formed part one of the program evaluation through providing information on the supports/resources of schools in relation to implementing a Learn to Play Program within their curriculums. The need for a play-based program has been established, therefore this research will now move to part two of the program evaluation, the evaluation of the implementation of a Learn to Play Program in special and SDS schools in Victoria, Australia.

Part two of this research is the largest of the studies, therefore will be presented across three chapters, Chapter Four, Five and Six. The next chapter, Chapter Four will discuss the methodology for Study Two.
CHAPTER FOUR

STUDY TWO: METHODOLOGY

The previous study, Study One, investigated the views of school staff (teachers, therapists and integration aides) on play and its relationship with childhood development and learning, specifically for children with developmental delay and disability who attend a Special or SDS school setting. Study One investigated how pretend play was valued in a special or SDS setting for the development and learning of children with developmental delay and/or disability, the current understanding of school staff around play and the developmental components essential for learning (e.g. language and social skills), and the current experiences of school staff in running a play-based program within their special or SDS school setting. Study One highlighted that 84% of participants were currently running the Learn to Play Program within their school setting at the time of the study. As mentioned previously, Learn to Play was designed as a one on one intervention and had only been trialled in one special and SDS school setting (O’Connor and Stagnitti, 2011). A program evaluation was essential due to the overwhelming number of schools already conducting a Learn to Play Program, which at the time of this research, had limited findings on its implementation in a school setting.

Study Two was designed to evaluate the implementation of the Learn to Play Program within the school curriculum for children in their first year of primary school in a special or SDS school setting (children with an IQ below 70). This reflects the second stage of Moscoso et al. (2013) program evaluation by investigating the effectiveness of the Learn to Play program over the first year of formal schooling. In order to evaluate the effectiveness of the Learn to Play Program and determine whether it was valuable for children with developmental delay and disability, Study Two investigated the impact of the Learn to Play Program on a child’s play, language, social and emotional skills and academic competence.
within a special and SDS school setting. Study Two was conducted over a seven-month time period, with assessment of a child’s play, language, behaviour, social and emotional development and academic competence completed pre and post the Learn to Play program implementation. The only staff invited into this study were teachers because they were completing the assessments on children.

Research Questions

1) Are there any changes in the development (play, language, social and emotional skills) and learning (academic competence) of children with a disability and/or developmental delay in their first year of school after participating in a Learn to Play Program across a seven-month period within their school setting?

2) What area of a child’s development (play, language, social, emotional and academic competence) did the Learn to Play program have the biggest impact.

3) Is there a connection between a child’s play ability and other areas of development?

Aims and Hypotheses

Aim One: To establish if there were any changes in a child’s development (pretend play, language, social and emotional skills) and learning (academic competence) in their first year of special or SDS schooling after participating in a Learn to Play Program across a seven-month period.

Hypothesis 1: Children will improve in their pretend play skills, language, social and emotional skills across the seven-month period.

Hypothesis 2: Children will improve in their academic competence across the seven-month period.
Aim Two: To determine the effect of the Learn to Play program on pretend play, language, social and emotional skills and academic competence of children participating in the Learn to Play program for seven months.

Hypothesis: The Learn to Play program will have a medium effect on the pretend play, language, social, emotional and academic skills of children across the seven-month period.

Aim Three: To determine whether pretend play predicts language, social, emotional and academic skills in a sample of children with a diagnosed disability and/or developmental delay.

Hypothesis: Pretend play predicts language, social, emotional and academic skills.

Participants

The sample in this study included special or SDS schools in Victoria, Australia, who participated in Study One, and who were interested in a Learn to Play Program in their school with children in their first year of school (prep). The seven special and SDS schools in Study One were invited by the primary researcher to participate in Study Two. Four schools consented to participate in Study Two. All four schools had previously run a Learn to Play program within their special or SDS school.

Children.

Thirty-eight children, 15 females and 23 males from four special and one SDS school across Victoria Australia participated in this study. Metro One had 9 participants, Metro Two had 8 participants, Regional One had 4 participants and Regional Two had 17 participants. Children were in their first year of schooling, and were between five and seven years of age (see Table 4.1). The mean age of children participating in the study at baseline data collection was 5 years 7 months (SD = 0.46). All children participating in the study had a diagnosed disability and/or developmental delay. Please refer to Table 4.2 for the details of
each participant’s diagnosis. All children who participated in the study had signed parental consent forms.

Table 4.1

*Mean Age of Participants at Each School (n = 38)*

<table>
<thead>
<tr>
<th>School</th>
<th>Mean Age in Years (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metro One</td>
<td>5.6 (0.33)</td>
</tr>
<tr>
<td>Metro Two</td>
<td>5.5 (0.30)</td>
</tr>
<tr>
<td>Regional One</td>
<td>6 (0.47)</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5.7 (0.49)</td>
</tr>
</tbody>
</table>

Note. (SD) = Standard deviation.
### Table 4.2

*Diagnosis of Participants in Study Two (n=38)*

<table>
<thead>
<tr>
<th>Number of Participants</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>Intellectual Disability</td>
</tr>
<tr>
<td>14</td>
<td>Autism Spectrum Disorder</td>
</tr>
<tr>
<td>7</td>
<td>Global Developmental Delay</td>
</tr>
<tr>
<td>3</td>
<td>Epilepsy</td>
</tr>
<tr>
<td>3</td>
<td>Visual Impairment</td>
</tr>
<tr>
<td>2</td>
<td>Hearing Impairment</td>
</tr>
<tr>
<td>1</td>
<td>Attention Deficit Hyperactivity Disorder</td>
</tr>
<tr>
<td>2</td>
<td>Behavioural Problems</td>
</tr>
<tr>
<td>2</td>
<td>Cerebral Palsy</td>
</tr>
<tr>
<td>1</td>
<td>Tuberous Sclerosis</td>
</tr>
<tr>
<td>1</td>
<td>Polymicrogyria &amp; Microcephaly</td>
</tr>
<tr>
<td>1</td>
<td>Acquired Brain Injury</td>
</tr>
<tr>
<td>1</td>
<td>Mosaic Trisomy 16</td>
</tr>
<tr>
<td>1</td>
<td>Sturge-Weber Syndrome</td>
</tr>
<tr>
<td>7</td>
<td>Other</td>
</tr>
</tbody>
</table>

Note. Many participants in the study had dual diagnoses, often more than two diagnoses.
Teachers.

Across the four schools participating in this study, seven prep teachers consented to participate in the study. Two were male and five were females. All teachers had been employed at the special or SDS school for over 12 months. All teachers had previous experience in the Learn to Play Program in some way in the previous year. The teacher’s role in this study was to fill out questionnaires including the Social Skills Improvement System – Rating Scale (SSIS-R) (Gresham, 2008) and the Strengths and Difficulties Questionnaire (Goodman, 1997), pre and post the Learn to Play Program Implementation. The seven teachers were involved in running the Learn to Play Program with their prep students for seven months.

Instruments

The instruments were administered with a minimum time of seven months between each administration to allow time for the schools to run two terms of the Learn to Play Program. Child participants were assessed with three instruments, which were administered by the researcher and the principal supervisor. These three instruments were: 1. the Child-Initiated Pretend Play Assessment (ChIPPA) (Stagnitti, 2007) to assess pretend play skills. 2. Clinical Evaluation of Language Fundamentals Fourth Edition (CELF-4) (Semel, 2003) to assess language skills. 3. Expression, Reception, and Recall of Narrative Instrument (ERRNI) (Bishop, 2004) to assess the child’s ability to comprehend and retell a story.

The teacher participants filled in two forms and also participated in a focus group. The forms which were filled in by the teacher participants were: 1. The Social Skills Improvement System Rating Scales (SSIS-RS) (Gresham & Elliott, 2008) to measure social skills and academic competence; 2. The Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) to assess behaviour and emotional regulation. Each of the instruments will now be described.
Instruments used to assess children.

**Child Initiated Pretend Play Assessment (ChIPPA).**

The ChIPPA (Stagnitti, 2007) was chosen for this study as it is a comprehensive, standardised and norm-referenced play assessment that measures the quality of a child’s ability to initiate and engage in pretend play (Stagnitti, 2007). There were over 400 children in the norm sample. Pretend play is important to measure as it is often delayed or non-existent in children with developmental delay and disability. The ChIPPA is targeted at children aged 3-7 years and involves an 18-minute assessment for children aged 3 years and a 30-minute assessment for children aged 4-7 years (Stagnitti, 2007). The assessment is administered in a one-on-one setting free from distraction (Uren & Stagnitti, 2009). The 30 minute 4 to 7-year-old assessment was used in this study and administered in a quiet room within each of the schools.

The assessment is divided into two 15-minute sessions where a child’s conventional-imaginative play and symbolic play skills are observed and scored (Uren & Stagnitti, 2009). Each 15-minute session is broken down into three 5-minute sections (Stagnitti, 2007). The first 5 minutes is when the play materials are presented to the child and the child is asked to play. The second 5 minutes involves the examiner modelling a set of five play actions with a doll and in the final 5-minute segment the child is encouraged to continue to play (McAloney & Stagnitti, 2009). The play materials used in the conventional-imaginative session resemble a farm set and the play materials in the symbolic session are unstructured objects such as a tin, cone, tea towel, and a box (Stagnitti, 2007). The play materials were chosen based on the choice of 36 children for developmental appropriateness and gender neutrality (Stagnitti, Rodger & Clarke, 1997).

The items that are assessed on the ChIPPA include the ‘Percentage of Elaborate Pretend Play Actions’ (PEPA), the ‘Number of Object Substitutions’ (NOS) and the ‘Number of
Imitated Actions (NIA) that the child produces during the 30 minutes of play (Stagnitti, 2007). The assessor scores each action of the child according to four codes, which are an ‘e’ for every elaborate play action, a ‘f’ for every functional play action, a ‘B’ for every non-play behavioural action and an ‘R’ for every play action or sequence that is repeated more than twice and is not part of a continuing idea (Stagnitti, 2007). The PEPA score is calculated as a percentage by dividing the number of elaborate play actions by the total number of actions. The NOS is calculated by the number of times a child uses a play material as something else and the NIA is calculated by the number of times the child imitates the play of the assessor (Stagnitti, 2007). Table 4.3 presents the measure descriptions.

Raw scores are compared to standard scores (based on z scores) or re-scaled scores (where 100 is the mean and 15 is the standard deviation) in order to compare the child’s pretend play skills to that of their peers of the same age level (Stagnitti, 2007). The ChIPPA has shown good test-retest reliability in the PEPA symbolic and PEPA combined measures (Intraclass correlation coefficient above .75) and moderate reliability for PEPA conventional, NOS symbolic and NOS combined measures (Intraclass correlation coefficient between .56 and .73) (Stagnitti & Unsworth, 2004). The other measures remained stable over time. The ChIPPA has also been shown to be valid and reliable in discriminating between children with pre-academic issues and typically developing children (Stagnitti, Unsworth & Rodger 2000).
Table 4.3  

*ChIPPA Measures and Descriptions*

<table>
<thead>
<tr>
<th>Measure Abbreviation</th>
<th>Measure Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEPA Conventional</td>
<td>Elaborate play using the conventional play materials</td>
</tr>
<tr>
<td>PEPA Symbolic</td>
<td>Elaborate play using the symbolic play materials</td>
</tr>
<tr>
<td>PEPA Combined</td>
<td>Total score of elaborate conventional and symbolic</td>
</tr>
<tr>
<td>NOS Conventional</td>
<td>Number of object substitutions with conventional play materials</td>
</tr>
<tr>
<td>NOS Symbolic</td>
<td>Number of object substitutions with symbolic play materials</td>
</tr>
<tr>
<td>NOS Combined</td>
<td>Total number of object substitutions with conventional and symbolic play materials</td>
</tr>
<tr>
<td>NIA Conventional</td>
<td>Number of imitated actions with conventional play materials</td>
</tr>
<tr>
<td>NIA Symbolic</td>
<td>Number of imitated actions with symbolic play materials</td>
</tr>
<tr>
<td>NIA Combined</td>
<td>Total number of imitated actions with conventional &amp; symbolic play materials</td>
</tr>
</tbody>
</table>

*Clinical Evaluation of Language Fundamentals Fourth Edition (CELF-4 Australian).*

The CELF-4 Australian is an individually administered standardised assessment tool used for the identification, diagnosis and outcome measurement of language and communication disorders in students aged 5-21 years (Semel, 2003). The CELF-4 Australian allows the clinician to evaluate four subtests to obtain a core language score. Once this is established and the clinician determines whether a language disorder is present, then the
CELF-4 can be used to evaluate the nature of the language disorder (challenges and strengths), clinical behaviours (e.g. working memory) and the impact that the child’s language is having on their classroom participation (Semel, 2003). The CELF-4 was chosen for this study to evaluate the participant’s language skills as it is a well-recognised, flexible assessment tool used to assess students in educational settings (Semel, 2003). When working with children with disabilities and developmental delay, it is important that the assessment tool is flexible, so that the clinician can decide on the most important sections to administer.

For the focus of this study, Level One: Identifying the language problem, and Core Language Score were completed with participants. Level one was chosen as it is a measure of general language skills and it provides information about the presence of a language disorder (Semel, 2003). Level one includes: concepts and following directions, word structure, recalling sentences and formulated sentence tasks (Semel, 2003).

The CELF-4 is sensitive to language difficulties among children who have a developmental disability, autism spectrum disorder and hearing impairment (Semel, 2003). The validity and reliability of the CELF-4 is poorly documented in the literature. Semel (2003) discusses the evidence base on special group studies and the clinical validation for children with disabilities. The diagnostic sensitivities within this group is high, but it is acknowledged that ongoing research is critical in the applicability of the CELF-4 in clinical groups (Semel, 2003).

*Expression, Reception, and Recall of Narrative Instrument (ERRNI).*

The ERRNI provides a measure of a person’s expressive language skills and story comprehension skills (Bishop, 2004). There are very few narrative assessments used in clinical research, and evidence is limited. The ERRNI is primarily used in clinical settings to evaluate the language skills of a child with a language disorder or delay (Bishop, 2004) but can be used into adulthood. A child must have some intelligible speech and English as their
first language in order to complete the standardisation process (Bishop, 2004). Participants are required to look at one of two textless stories: the Beach Story or the Fish Story. Participants view the pictures in the story before telling the story to the examiner, first with the pictures in sight, and then recalling the story 30 minutes later without the pictures in sight (Myers & Botting, 2008). The participants are also required to answer a set of comprehension questions about the story. Please refer to Table 4.4 for examples of the comprehension questions. The assessment takes approximately 15 minutes to administer, with the recall 30-40 minutes. The stories are audio-recorded for scoring purposes. Participants are then provided with four scores: the initial storytelling, the recall of the story, their comprehension of the questions and a Mean Length of Utterances (MLU) which provides information on the sentence complexity (Myers & Botting, 2008).

In order to see whether the UK standards of the ERRNI could be applied to Australian children, a sample of 146 Australian children were recruited and standard scores compared to the UK samples. The values were similar, providing confidence in the norms and their applicability to an Australian sample (Bishop, 2004). In terms of reliability of the ERRNI assessment, internal consistency was measured using the co-efficient alpha for the ideas scores and comprehension score and using Pearson correlation between story-telling and recall of MLUw. Acceptable internal consistency was reached for the ERRNI indices (Bishop, 2004). Concurrent validity of the ERRNI was compared with other comprehension measures including the CELF-Preschool and TROG-2. The strongest correlations were found between the comprehension items, but all other correlations were weak. This provides evidence that the language skills measured on the ERRNI are independent of those measured on alternative language measures (Bishop, 2004).
Table 4.4

Examples of the Comprehension Questions and scoring criteria on the ERRNI assessment:

The Fish Story

<table>
<thead>
<tr>
<th>Question</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. Why did the boy’s mother give him money?</td>
<td>2 points: implicit or explicit statement of the goal to get a new fish&lt;br&gt; 1 point: so he could get his pet&lt;br&gt; 0 points: to buy an ice-cream/buy a doll/buy food for his mother&lt;br&gt;-1 point: the dog was sleeping on the carpet</td>
</tr>
<tr>
<td>Q6. How did the boy feel when he found the doll?</td>
<td>2 points: shocked or surprised and disappointed&lt;br&gt; 1 point: annoyed/angry&lt;br&gt; 0 points: a bit weird/funny&lt;br&gt;-1 point: he picked it up</td>
</tr>
</tbody>
</table>

Instruments completed by teachers for each of the children.

Social Skills Improvement System – Rating Scales (SSIS-RS).

The Social Skills Improvement System – Rating Scales (SSIS-RS) was chosen for this study as it is a reliable standardised assessment which analyses common social skills across seven subdomains, including Communication, Cooperation, Assertion, Empathy, Responsibility, Engagement and Self- control (Gresham, Elliott, Vance, & Cook, 2011). Table 4.5 highlights examples from each of the seven subdomains. The SISS-RS includes a parent form and a teacher form. As the performance of children within the school setting was being evaluated in this study, only the teacher forms were used. The teachers were able to complete the SSIS on a child at the beginning of the school year as it is based on the child’s
current behaviour (therefore they were not required to have known the child for an extended period of time prior to assessment). The same teacher completed the baseline and follow up assessments. The forms include problem behaviours such as Externalising, Bullying, Internalising, Hyperactivity/Inattention and Autism Spectrum. The teacher form also assesses Academic competence in maths, cognitive skills, reading and motivation (Gresham et al., 2011).

Each item on the SSIS-RS is evaluated using a four-point scale (0=never, 1= Seldom, 2 = Often, 3 = Almost Always) with scoring based on the teacher’s interpretation of the frequency of the social skill (Gresham et al., 2011). In addition to the four-point scale, teachers also rated the importance of each skill (0= not important, 1 = Important, 2 = Critical) as a way to prioritise the social skills in need of the most immediate intervention (Gresham et al., 2011). Overall scores in Social Skills, Academic Competence, and Problem Behaviours are presented as standard scores (Gresham et al., 2011). The SSIS-RS shows strong test-retest reliability and internal consistency. Gresham et al. (2011, p.37) stated that “Median scale reliabilities of the Social Skills and Problem Behaviour Scales are in the mid- to upper .90s for every age group on each form”. Test-retest indices of correlation are good with .82 for Total Social Skills on the teacher form, .83 for problem behaviours and .92 for Academic Competence (Gresham et al., 2011).
Table 4.5

*SISS-RS Examples from each of the Seven Sub-Domains for the Teacher Form 5-12 years*

<table>
<thead>
<tr>
<th>Seven sub-domains</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Takes turns in conversations</td>
</tr>
<tr>
<td>Cooperation</td>
<td>Follows your directions</td>
</tr>
<tr>
<td>Assertion</td>
<td>Asks for help from adults</td>
</tr>
<tr>
<td>Empathy</td>
<td>Tries to comfort others</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Is well-behaved when unsupervised</td>
</tr>
<tr>
<td>Engagement</td>
<td>Makes friends easily</td>
</tr>
<tr>
<td>Self-control</td>
<td>Stays calm when teased</td>
</tr>
</tbody>
</table>

*Strengths and Difficulties Questionnaire (SDQ).*

The Strengths and Difficulties Questionnaire (SDQ) is a behavioural screening questionnaire for children and adolescents aged 4-16 years (Goodman, 1997). The SDQ was chosen for this study as it assesses a child’s psychosocial attributes in order to evaluate whether these attributes are impacting child/adolescents behaviour (Kersten et al., 2016), an important developmental component for children participating in play, social interactions with their peers and learning within a school environment. The SDQ was also chosen due to its widespread and valued clinical use, particularly with children who have Attention Deficit Hyperactivity Disorder (ADHD) (Carballo, Rodríguez-Blanco, García-Nieto, & Baca-García, 2014; Pritchard, 2012; Rimvall et al., 2014) and emotional disorders (Johnson, Hollis, Marlow, Simms, & Wolke, 2014; Kersten et al., 2016). The questionnaire was designed to be
easily administered (one assessment form) by parents or teachers, or a self-reported questionnaire for adolescents where both strengths and difficulties are evaluated (Goodman, 1997). For Study Two only the teachers filled out the form seven months apart for each child in the study.

The SDQ includes 25 psychological attributes, divided into five scales: 1. emotional symptoms, 2. conduct problems, 3. hyperactivity/inattention, 4. peer relationship problems and 5. prosocial behaviour. Table 4.6 highlights examples of questions included in the questionnaire. Items 1-4 are added together to get a total difficulties score (Information for researchers and professionals about the Strengths and Difficulties Questionnaires n.d. retrieved from http://www.sdqinfo.com/).

In a systematic review completed by Kersten et.al (2016) the five scale structural validity of the SDQ was noted as strong. The systematic review included published studies reporting on the validity and reliability of the SDQ parent and teacher questionnaires for preschool age children (3-5 years) (Kersten et.al 2016). Overall, the review confirmed strong convergent validity and internal consistency for the SDQ (Kersten et.al 2016). The authors addressed the lack of evidence for other psychometric properties including test-retest reliability, cultural validity and criterion validity which need to be evaluated in the future due to the SDQ’s wide spread clinical use (Kersten et al., 2016). Other researchers also agree on the convergent validity and strong internal consistency reliability of the SDQ (Ezpeleta, Granero, de la Osa, Penelo, & Domènech, 2013; Niclasen, Skovgaard, Andersen, Somhovd, & Obel, 2013; Williamson et al., 2014) and its valued use in clinical practice (Johnson et al., 2014; Williamson et al., 2014). Mellor and Stokes (2007) undertook a comprehensive study on the factor structure of the SDQ using a sample of 904 children and youth. Results showed that although the psychometric properties are supported through various studies, the structures of the subscales do not adequately address the items. Mellor and Stokes (2007)
suggested further investigation of the SDQ and suggest using it with other assessment measures not merely on its own.

Table 4.6

*Examples of SDQ Questions and Rating Scales included in the Teacher Questionnaire 4-10-year olds*

<table>
<thead>
<tr>
<th>Examples</th>
<th>Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considerate of other’s feelings</td>
<td>Not true, somewhat true or Certainly true</td>
</tr>
<tr>
<td>Helpful if someone is hurt, upset or feeling ill</td>
<td>Not true, somewhat true or Certainly true</td>
</tr>
<tr>
<td>Has at least one good friend</td>
<td>Not true, somewhat true or Certainly true</td>
</tr>
<tr>
<td>Kind to younger children</td>
<td>Not true, somewhat true or Certainly true</td>
</tr>
<tr>
<td>Good attention span, sees tasks through to the end</td>
<td>Not true, somewhat true or Certainly true</td>
</tr>
</tbody>
</table>
Procedure

**Ethical approval.**

Approval for this study was sought and obtained through the Deakin University Human Research Ethics Committee (DU-HREC) (see Appendix F) and the Department of Education and Training (see Appendix G) prior to the commencement of the study. All participants gave written consent with parents giving written third-party consent for their child. Children were asked for consent before the assessment.

**Recruitment.**

The six special schools and one Special Development School (SDS) who participated in Study One were approached and invited by the researcher to participate in Study Two. The contact person for Study One was contacted via email by the researcher to ask if they would be interested in participating in Study Two. Out of the seven schools, 3 schools declined to participate in the study as they were unable to implement and run a Learn to Play program due to limited time within their curriculum. Out of the four schools remaining, all schools had previously conducted a Learn to Play program within their school curriculum, based on a training session that a staff member or a group of staff members had attended in previous years.

**Teachers.**

Once approval was confirmed from Deakin University and the DEECD research ethics committees, and the invited schools consented to participate in the study, Plain Language Statements (PLS) and consent forms (see Appendix H) were provided to school teachers who were completing the SDQ and SSIS questionnaires. These teachers were also involved in running the Learn to Play program in Study Two. Seven teachers across the four schools returned consent forms. The consent forms were mailed in reply paid envelopes from
Children.

Plain Language Statements (PLS) and consent forms (Appendix I) were provided to the key contact at each of the schools, to distribute to all potential parents/guardians of participants who met the inclusion criteria. The inclusion criteria were children in their first year of school, and who were involved in the weekly Learn to Play Program within their school setting.

The PLS and consent forms were distributed to parents by the consenting teacher at the school. The parents of children who met the inclusion criteria were advised by teachers at the time of drop off/pick up, by mail or by phone contact that the research was taking place. The PLS and consent forms were then distributed to the parents of eligible children at drop off/pick up or via the mail. Verbal explanation by teachers as well as the written explanation of the study contained in the PLS ensured that parents with poor literacy skills understood the study. Parents were assured that if they did not wish to participate, their child would still be involved in the Learn to Play program. Parents who provided verbal consent to school teachers for their child to participate in the study at the time of pick up/drop off received a follow up phone call by their child’s teacher at the school if they had not returned the consent form within two weeks of distribution. Overall, across the four schools, 61 PLS and consent forms were sent home to all children eligible to participate in the Learn to Play program throughout the year. Forty-one prep students across the four schools were given consent by their parents to participate in the study. The consent forms for these children were returned by the parents at the time of drop off or pick up. Each school created a box at the office which stated ‘Learn to Play consent forms’. Parents were asked by school staff to place the consent forms into the box. School staff then collected the consent forms at the end of each day. Once
the deadline was reached for all consent forms to be returned (two weeks after being distributed to parents), the school mailed the consent forms in a reply-paid envelope to the researcher at Deakin University. Of the 41 prep students who were given consent by their parents, 38 participated in the study. Three prep students did not return their consent forms.

**Data collection.**

**Baseline.**

The researcher coded each child prior to the completion of assessments. No names or identifying information were used on the assessment forms. Prior to the commencement of the study, the researcher was extensively trained in the administration and scoring of the ChIPPA assessment. The researcher also had experience in using the ChIPPA assessment in her practice as an occupational therapist. The researcher conducted training with her supervisor in the administration and scoring of the CELF-4 and ERRNI language assessments. Consultation was also carried out with a language specialist during training.

The researcher, the principal supervisor and the teachers within each school administered the instruments. Baseline assessments were completed in April and May 2015 on all 38 child participants in this study. Data was collected on children’s play skills (ChIPPA), language skills (CELF-4) and narrative skills (ERRNI) by the researcher. Social skills and academic competence (SSIS) and emotional regulation (SDQ) data were completed by teachers for the children in the study as they were most familiar with the children in each of their classes. Teachers were encouraged to have the SSIS and SDQ forms back within two weeks of receiving the forms, sent in the mail by reply paid envelopes to the researcher at Deakin University. If the forms were not received within the two-week time frame, the researcher phoned the school to remind the teacher.

The teacher’s arranged a quiet room free from distraction for the researcher to complete the assessment. The ChIPPA, CELF-4 and ERRNI assessments were completed by
the researcher and principal supervisor in a quiet room away from distraction within each school setting. Times were arranged with each teacher prior to the researcher attending the school, for example a morning, after recess or after lunch time period for the researcher to assess students. Each teacher had a list of children in their classrooms at the beginning of each day. The teacher then used the list to call the next participant. The researcher then walked the child to the room where the assessment was taking place. Once the assessment took place, the researcher walked the child back to their classroom and the teacher crossed the child’s name from the list. The three assessments (The ChIPPA, the CELF-4, and ERRNI) were randomised using a Latin Square to account for a child’s test order fatigue. If a child was away on the day of assessment, the researcher/s returned on an alternative day to assess the child.

The administration of the SDQ and the SSIS forms were discussed with all seven teachers involved in this study. All eight teachers consented to completing the SDQ and the SSIS forms pre and post Learn to Play Program (at a seven-month interval).

**Follow-up data collection.**

Follow up data collection occurred in December 2015, approximately seven months after the initial baseline assessment. December was chosen as it was the last month of the school year when assessments could be completed. The same procedure for data collection at baseline took place at follow up, using the same assessments. Thirty-six children out of 38 children were assessed at follow up. Two children were away for the whole month of December when the researcher returned to complete the follow up assessments. Children were assessed at similar times in the day to their baseline assessments to ensure that the conditions of the assessment were as similar to baseline as possible. The times were arranged with the teachers at each school as per baseline assessments. Teachers were again asked to complete the SSIS and SDQ for each of the 38 children who had been given written parental
consent to be in the study. Teachers were not given copies of the children’s baseline assessments they had completed 7 months prior, nor were they given any information relating to the baseline assessments.

After follow-up data collection, feedback reports (see Appendix J for a template) were then provided to the parents of the children and teachers involved in the study, outlining the child’s progress from baseline to follow up in all five assessments, along with a summary of the assessments (ChIPP, CELF-4, ERRNI, SSIS and SDQ) completed on each child (Appendix J).

**The Learn to Play Program.**

The Learn to Play Program is a play-based program aimed at assisting children to develop their imaginative play skills, ability to self-initiate their own play and to develop pretend play skills similar to their expected developmental level for their age, so that they can socially engage with their peers (Stagnitti, 2009).

Four schools had previously run a Learn to Play Program within their curriculum. These four schools were interested to continue running the program for the new students coming into the school, which corresponded to the start of Study Two. The four schools who consented to participate were offered training in the Learn to Play Program in January 2015, prior to the school year commencing. The training was open to all staff involved in the Learn to Play Program, including therapists, teachers, principals, and integration aides who would be involved with the prep students in their first year of school. The researcher and principal supervisor conducted training at a metropolitan school (where two metropolitan schools and one regional school attended) and training in a regional area (where one regional school and one rural school attended). The training focused on increasing participant’s knowledge of the development of pretend play and the principles of Learn to Play and provided strategies for engagement and play-based interactions. The researchers were cautious not to provide strict
guidelines for the implementation of the program, as this research aimed to explore the commonalities and differences between schools in the way they implement the Learn to Play Program (stage three of this program evaluation).

The guidelines for program fidelity provided to each school included:

- The Learn to Play Program is to run at minimum 1 hour each week.
- The Learn to Play activities are to be chosen by the school, with reference to the Learn to Play Manual (Stagnitti, 1998) as a guide to play activities for different developmental levels of play.
- Play activities are based on the play ability of the children.
- Staff are to use the 10 key skills for Learn to Play in each session (clearly communicated to schools in the training).
- Staff are co-players with the children.
- Staff are to provide repetition and modelling of play ideas to assist children to understand the play.
- Schools can determine how many children they include in each play session.
- At the school’s discretion they can decide how many play activities are chosen for each session.
- Schools to choose whether they set up the program in the classroom or in a designated play space.
- The Learn to Play Program is run from Term 2 - Term 4 (OR begin immediately after the baseline assessments).

Schools must follow the 10 key skills in the Learn to Play Program (Stagnitti, 1998). School staff were trained on the 10 key skills and how to integrate the key skills into their play sessions. The 10 key skills to the Learn to Play Program include:

- Play Sequences
- Describing and explaining the play
- Object Substitution
- Recognising and describing decentration (use of doll)
- Recognising and facilitating play scripts
- Joining the child in role play
- Talking about the play: Attributing properties to objects
- Referring to absent objects and actions
- Adding problems in the play narrative
- Predicting what will happen next

All four schools followed the 10 key play skills and used similar play ideas, many based on ideas from the Learn to Play: A practical program to develop a child’s imaginative play (Stagnitti, 1998). Examples of play themes adopted by schools included: zoo play, fishing, doctors, shops, doll play, building and aeroplane trips. The researcher monitored treatment fidelity (that is, the implementation of Learn to Play) throughout the seven months by maintaining regular contact with schools through phone and email and if required, visits to schools. The researcher answered questions and asked questions relating to the fidelity guidelines. The researcher did not discuss individual children with the staff.

**Data Analysis**

Data were analysed using the Statistical Package for Social Sciences (SPSS) Version 22 software. As children in the sample had Intelligence Quotient’s (IQ) below 70, the data were not likely to meet the assumptions of normality because there was not expected to be a spread of scores. Therefore, it was expected that non-parametric statistics would be used. Exploration of the data occurred first by calculating descriptive statistics for the baseline and follow up data. To establish whether there were any differences between genders, age and schools, a Mann Whitney U was conducted. A Mann Whitney U was chosen for this analysis.
as it involves the comparison of two independent groups, conditions or treatments to be compared without making the assumption that the values are normally distributed (Stangroom, 2015). Listed below is the specific analysis performed to address each of the study aims.

**Aim One.** To establish if there are any changes in a child’s development (play, language, social and emotional skills) and learning (academic competence) in their first year of specialist schooling after participating in a Learn to Play Program across a seven-month period.

A Wilcoxon Signed-Ranks Test was used to compare the baseline and follow-up results on each of the five assessment measures (the ChIPPA, SSIS, SDQ, CELF-4 and ERRNI). The Wilcoxon Signed-Rank Test is a non-parametric test that includes two sets of data based on the same sample (Rosner, Glynn & Lee, 2006). This test was chosen to analyse this aim as it is used in situations in which there are multiple sets of data and the scores come from the same participants (children participating in the Learn to Play Program) at two different points in time (baseline and follow up). Alpha was set at .05. Raw scores were used, as these scores were more sensitive to change than the standard scores in this sample of children.

**Aim Two.** To determine the effect of the Learn to Play program on pretend play, language, social and emotional skills and academic competence of children participating in the Learn to Play program for seven months.

In order to ascertain the impact of the Learn to Play program, that is effect size, Cohen’s $d$ was calculated as this is applicable to small sample sizes based on paired samples. Cohen’s $d$ uses the square root of the average of each measurement (baseline and follow up) to estimate the effect (Peng & Chen, 2014). Cohen’s $d$ can be interpreted as having a small
(\(d=0.2\)), medium \((d=0.5)\) or large \((d=0.8)\) effect, which is particularly relevant in the behavioural sciences (Cohen, 2013). This measured the effect of the play program (using baseline and follow up scores) on the variables (language, social, emotional and cognitive skills) (Trusty, Thompson & Petrocelli, 2004). Measuring the effect size is an important statistic in communicating change (Trusty et al., 2004) and showing the impact of an intervention.

**Aim Three.** To determine whether pretend play predicts language, social, emotional and academic skills in a sample of children with a diagnosed disability and/or developmental delay.

A Generalised Estimation Equation (GEE) (Liang & Zegler, 1986) was used to investigate if play predicted changes in language, social, emotional and academic skills. A GEE is a statistical approach that is used to fit a model for repeated data analysis (Wang, 2014) which in this study included base line and follow up over a seven-month period. The GEE was chosen as the preferred data analysis method as it is suitable for samples under 100 and the GEE can account for co-variates (Wang, 2014) such as time and age. The GEE was also chosen as it’s a model which can account for many factors and helps to understand the relationship between play and areas of development, including language, social, emotional and academic skills. The GEE was conducted on all variables in the ChIPPA, CELF-4, ERRNI, SSIS-R and SDQ. The results of the GEE on each of these variables will be discussed in Chapter Five. Age was included in the GEE as a co-variate to account for the children’s natural maturation over the seven-month period.
Conclusion

Chapter Four presented the methodology for Study Two. The first aim of this study was to determine whether any changes occurred in a child’s development (pretend play, language, social and emotional skills) and learning (academic competence) over a seven-month period. In order to determine this, assessments were conducted on the 38 children participating in this study. In order to determine whether the hypothesis was supported, a Wilcoxon Signed-Ranks Test was used to compare the baseline and follow-up results on each of the five assessment measures (ChIPPA, CELF-4, ERRNI, SSIS-R and SDQ). Cohen’s d was used to determine the effect of the Learn to Play Program on a child’s play, language, social skills, emotional regulation and academic competence. A GEE was used to determine whether pretend play predicts language, social, emotional and academic skills in a sample of children with a diagnosed disability and/or developmental delay. The following chapter, Chapter Five presents the results of this study in relation to these three aims. This will build on part two of Moscoso et al. (2013) program evaluation process.
CHAPTER FIVE

STUDY TWO: RESULTS

The previous chapter, Chapter Four presented the methodology for Study Two. Chapter Five will present the results of this study. The results are set out by study aim.

Aim One Results

Aim One was to establish if there were any changes in a child’s development (pretend play, language, social and emotional skills) and learning (academic competence) in their first year of special or SDS schooling after participating in a Learn to Play Program across a seven-month period.

Hypothesis 1: Children will improve in their pretend play skills, language, social and emotional skills across the seven-month period.

Hypothesis 2: Children will improve in their academic competence across the seven-month period.

The sample of children in this study included those with an Intelligence Quotient’s (IQ) below a score of 70. The data were examined to determine if the data violated the assumptions of normality. The results displayed skewness and kurtosis across the sample, indicating that the data did not meet the assumptions of normality, therefore the Wilcoxon Signed Ranks Test was chosen as the most suitable statistic to assess changes in the participants’ scores from baseline to follow up on all five measures.

A Wilcoxon Signed-Ranks Test was chosen to analyse the changes in scores as this test can be used when there are repeated measurements of the same item (the five assessments completed in this study at baseline and follow up) (Ahad et al., 2014). Because the parametric tests were not valid for this sample, the Wilcoxon Signed-Ranks Test was
more powerful in detecting change between the two points of time (baseline and follow up) (Ahad et al., 2014).

**Play and language assessments.**

To examine changes between the baseline and follow up scores on the ChIPPA, raw scores were used, as these scores were more sensitive to change than the standard scores in this sample of children (children with developmental delay and disability). Appendix K-O present the individual school results on all assessment items on the ChIPPA (appendix K), CELF-4 (appendix L), ERRNI (appendix M), SDQ (appendix N), SSIS (appendix O) including the difference between baseline and follow up scores for each item.

Table 5.1 presents the descriptive statistics (including mean and standard deviation) for all children assessed at baseline and follow up and the \( p \) values and Cohen’s \( d \) for the matched data between baseline and follow up for the ChIPPA assessment. The results of Cohen’s \( d \) will be addressed under Aim Two.
Table 5.1

Baseline and Follow Up Descriptive Statistics (Including Mean, SD and p Values) for the raw scores of the ChIPPA of Children in the Sample, including Cohen’s d

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>N</th>
<th>Baseline</th>
<th>N</th>
<th>Follow up</th>
<th>p value</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>PEPA Raw Conventional</td>
<td>38</td>
<td>27.73</td>
<td>24.45</td>
<td>32</td>
<td>32.9</td>
<td>31.13</td>
</tr>
<tr>
<td>PEPA Raw Symbolic</td>
<td>38</td>
<td>17.04</td>
<td>22.00</td>
<td>32</td>
<td>24.3</td>
<td>28.61</td>
</tr>
<tr>
<td>PEPA Raw Combined</td>
<td>38</td>
<td>44.14</td>
<td>44.16</td>
<td>32</td>
<td>57.2</td>
<td>57.47</td>
</tr>
<tr>
<td>NOS Raw Conventional</td>
<td>38</td>
<td>.44</td>
<td>1.13</td>
<td>32</td>
<td>1.03</td>
<td>2.87</td>
</tr>
<tr>
<td>NOS Raw Symbolic</td>
<td>38</td>
<td>3.55</td>
<td>5.48</td>
<td>32</td>
<td>3.56</td>
<td>5.36</td>
</tr>
<tr>
<td>NOS Raw Combined</td>
<td>38</td>
<td>4.02</td>
<td>6.09</td>
<td>32</td>
<td>4.60</td>
<td>6.39</td>
</tr>
<tr>
<td>NIA Conventional</td>
<td>38</td>
<td>.23</td>
<td>.67</td>
<td>32</td>
<td>.10</td>
<td>.305</td>
</tr>
<tr>
<td>NIA Symbolic</td>
<td>38</td>
<td>.18</td>
<td>.46</td>
<td>32</td>
<td>.20</td>
<td>.55</td>
</tr>
<tr>
<td>NIA Combined</td>
<td>38</td>
<td>.42</td>
<td>.97</td>
<td>32</td>
<td>.30</td>
<td>.70</td>
</tr>
<tr>
<td>Typical Play Indicators</td>
<td>38</td>
<td>7.84</td>
<td>6.02</td>
<td>32</td>
<td>9.23</td>
<td>6.55</td>
</tr>
<tr>
<td>Play Deficits Indicators</td>
<td>38</td>
<td>13.97</td>
<td>6.53</td>
<td>32</td>
<td>12.8</td>
<td>7.63</td>
</tr>
<tr>
<td>Total Time Playing (seconds)</td>
<td>38</td>
<td>715.62</td>
<td>666.17</td>
<td>32</td>
<td>878.68</td>
<td>609.52</td>
</tr>
<tr>
<td>Total Play Actions</td>
<td>38</td>
<td>46.13</td>
<td>33.97</td>
<td>32</td>
<td>43.1</td>
<td>34.44</td>
</tr>
</tbody>
</table>

Note. M= Mean; SD = Standard Deviation; PEPA Combined= Percentage of elaborate play actions in the conventional and symbolic session; NOS Combined = Number of object substitutions in the conventional and the symbolic session; Typical Play Indicator = Number of typical play indicators recorded on the ChIPPA clinical observations; Play deficit indicators= Number of play deficits recorded on the ChIPPA clinical observations; Total Time Playing = the number of seconds the child played for within the 30 minute duration of the ChIPPA assessment; Total Play Actions = The total number of play actions that the child performed within the assessment.

*p<.05
**p<.01
***p<.001
There was a significant difference between the baseline and follow up scores in PEPA combined ($p=.03$) and NOS conventional ($p = .047$). However, when looking at the raw data, increases in all PEPA scores, NOS Combined, Typical Play Indicators and Total Time Playing from baseline to follow up were noted (see Table 5.1). There was a decrease in play deficits. Thirty-two children completed the baseline and follow-up ChIPPA assessments. The assessment was unable to be completed on six participants due to 2 children being absent during the follow-up time period, and 4 children displaying behaviours such as: non-compliance, children requesting to finish the assessment and leave the room, or the play materials being too complex for the children to engage with.

To examine changes between the baseline and follow up scores on the CELF-4, raw scores were used. Table 5.2 presents the descriptive statistics (including mean and standard deviation) for all children assessed at baseline and follow up and the $p$ values and Cohen’s $d$ for the matched data between baseline and follow up on the CELF-4.
### Table 5.2

**Baseline and Follow Up Descriptive Statistics (Including Mean, SD and p Values) of Children in the sample (n=38) with matched data on the baseline and follow up CELF-4 – Raw Scores**

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>N</th>
<th>Baseline</th>
<th></th>
<th>N</th>
<th>Follow up</th>
<th>p value[^]</th>
<th>Cohen's d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td></td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Concepts and Following Directions</td>
<td>38</td>
<td>1.31</td>
<td>2.87</td>
<td>30</td>
<td>2.34</td>
<td>4.12</td>
<td>.09</td>
</tr>
<tr>
<td>Word Structure</td>
<td>38</td>
<td>.52</td>
<td>1.86</td>
<td>30</td>
<td>.07</td>
<td>.27</td>
<td>.29</td>
</tr>
<tr>
<td>Recalling Sentences</td>
<td>38</td>
<td>.00</td>
<td>.00</td>
<td>30</td>
<td>2.78</td>
<td>5.84</td>
<td>.02*</td>
</tr>
<tr>
<td>Formulated Sentences</td>
<td>38</td>
<td>.00</td>
<td>.00</td>
<td>30</td>
<td>.92</td>
<td>2.74</td>
<td>.07</td>
</tr>
</tbody>
</table>

*Note. M= Mean; SD = Standard Deviation; Recalling Sentences= Expressive language item on the CELF-4 assessment.*

[^]p value based on Wilcoxon Signed Ranks Test with matched data (n = follow up)

*p<.05
**p<.01
***p<.001

There was a significant difference between the baseline and follow up scores in Recalling Sentences (*p* =.02). The number of children with baseline and follow-up scores in the CELF-4 was 30. Of the eight children who did not have complete scores, 2 children were away during the follow-up assessment time period, and six children displayed behaviours such as: non-compliance, children requesting to finish the assessment, or children requesting to leave the room.

To examine changes between the baseline and follow up scores on the ERRNI, raw scores were used. Table 5.3 presents the descriptive statistics (including mean and standard deviation) for all children assessed at baseline and follow up and the *p* values and Cohen’s *d* for the matched data between baseline and follow up on the ERRNI.
Table 5.3  

**Baseline and Follow Up Descriptive Statistics (Including Mean, SD and p Values) of Children in the sample (n=32) with matched data on the baseline and follow up on the ERRNI**

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>N</th>
<th>Baseline M</th>
<th>SD</th>
<th>N</th>
<th>Follow up M</th>
<th>SD</th>
<th>p Value</th>
<th>Cohe n’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLU</td>
<td>38</td>
<td>.95</td>
<td>2.54</td>
<td>32</td>
<td>2.05</td>
<td>3.74</td>
<td>.053</td>
<td>2.72</td>
</tr>
<tr>
<td>Recall</td>
<td>38</td>
<td>.00</td>
<td>.00</td>
<td>32</td>
<td>.22</td>
<td>.79</td>
<td>.109</td>
<td>-</td>
</tr>
<tr>
<td>Forgetting</td>
<td>38</td>
<td>.33</td>
<td>6.54</td>
<td>32</td>
<td>.03</td>
<td>3.89</td>
<td>.575</td>
<td>0.59</td>
</tr>
<tr>
<td>Comprehension</td>
<td>38</td>
<td>.59</td>
<td>2.27</td>
<td>32</td>
<td>.78</td>
<td>2.13</td>
<td>.915</td>
<td>0</td>
</tr>
<tr>
<td>Ideas</td>
<td>38</td>
<td>1.24</td>
<td>3.44</td>
<td>32</td>
<td>1.81</td>
<td>4.00</td>
<td>.342</td>
<td>1.26</td>
</tr>
</tbody>
</table>

*Note. M= Mean; SD = Standard Deviation; *p value based on Wilcoxon Signed Ranks Test with matched data (n = follow up)*

* p<.05  
** p<.01  
*** p<.001  

There were no significant differences on the ERRNI, including MLU, recall, forgetting, comprehension and ideas as highlighted in Table 5.3. The number of children with scores for baseline and follow-up was 32. The 6 children who did have complete data included 2 children who were away at the time of follow up data collection and 4 children who indicated they did not wish to complete the assessment.

**Teacher completed assessments.**

The following two assessments, the SDQ and the SSIS were completed by the classroom teachers who consented to be part of this study. To examine changes between the baseline and follow up scores on the SDQ, raw scores were used. Table 5.4 presents the descriptive statistics (including mean and standard deviation) for all children assessed at baseline and follow up and the p values and Cohen’s d for the matched data between baseline and follow up on the SDQ.
Table 5.4

Baseline and Follow Up Descriptive Statistics (Including Mean, SD and \( p \) Values) of Children in the sample (\( n=33 \)) with matched data on the baseline and follow up SDQ

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>N</th>
<th>Baseline</th>
<th>N</th>
<th>Follow up</th>
<th>( p ) Value</th>
<th>Cohe n’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( M )</td>
<td></td>
<td>( M )</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( SD )</td>
<td></td>
<td>( SD )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Problem Scale</td>
<td>38</td>
<td>1.87</td>
<td>33</td>
<td>2.64</td>
<td>.095</td>
<td>-0.35</td>
</tr>
<tr>
<td>Conduct/Behaviour</td>
<td>38</td>
<td>2.06</td>
<td>33</td>
<td>2.18</td>
<td>.732</td>
<td>-0.07</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>38</td>
<td>7.54</td>
<td>33</td>
<td>6.85</td>
<td>.194</td>
<td>0.09</td>
</tr>
<tr>
<td>Peer Problems</td>
<td>38</td>
<td>3.39</td>
<td>33</td>
<td>2.80</td>
<td>.328</td>
<td>0.13</td>
</tr>
<tr>
<td>Prosocial Behaviour</td>
<td>38</td>
<td>3.42</td>
<td>33</td>
<td>4.79</td>
<td>.135</td>
<td>-0.22</td>
</tr>
<tr>
<td>Total Difficulties Score</td>
<td>38</td>
<td>1.72</td>
<td>33</td>
<td>1.49</td>
<td>.670</td>
<td>-0.06</td>
</tr>
</tbody>
</table>

Note. \( M = \) Mean; \( SD = \) Standard Deviation; \( ^* p \) value based on Wilcoxon Signed Ranks Test with matched data (\( n = \) follow up).

\( ^* p < .05 \)
\( ^{*} p < .01 \)
\( ^{**} p < .001 \)

There were no significant results between the baseline and follow up scores on the SDQ as shown in Table 5.4. The number of children in this sample who had completed baseline and follow-up data was 33. Five children did not have completed data due to teachers not returning the completed assessment forms to the researcher.

To examine changes between the baseline and follow up scores on the SSIS, raw scores were used. Table 5.5 presents the descriptive statistics (including mean and standard deviation) and the \( p \) values and Cohen’s \( d \) for the matched data between baseline and follow up on the SSIS.
Table 5.5

*Baseline and Follow Up Descriptive Statistics (Including Mean, SD and p Values) of Children in the sample (n=34) with matched data on the baseline and follow up SSIS*

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>N</th>
<th>Baseline</th>
<th></th>
<th></th>
<th>Follow up</th>
<th></th>
<th>P values</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSIS Communication</td>
<td>38</td>
<td>8.68</td>
<td>6.22</td>
<td>34</td>
<td>10.59</td>
<td>4.61</td>
<td>.07</td>
<td>-0.22</td>
</tr>
<tr>
<td>SSIS Cooperation</td>
<td>38</td>
<td>8.27</td>
<td>5.21</td>
<td>34</td>
<td>10.46</td>
<td>3.31</td>
<td>.13</td>
<td>-0.39</td>
</tr>
<tr>
<td>SSIS Assertion</td>
<td>38</td>
<td>6.57</td>
<td>5.22</td>
<td>34</td>
<td>10.00</td>
<td>5.00</td>
<td>.001*</td>
<td>-0.54</td>
</tr>
<tr>
<td>SSIS Responsibility</td>
<td>38</td>
<td>6.59</td>
<td>4.47</td>
<td>34</td>
<td>8.34</td>
<td>3.79</td>
<td>.016*</td>
<td>0.35</td>
</tr>
<tr>
<td>SSIS Empathy</td>
<td>38</td>
<td>6.71</td>
<td>5.37</td>
<td>34</td>
<td>8.56</td>
<td>4.93</td>
<td>.002*</td>
<td>0.31</td>
</tr>
<tr>
<td>SSIS Engagement</td>
<td>38</td>
<td>9.40</td>
<td>6.54</td>
<td>34</td>
<td>11.09</td>
<td>4.42</td>
<td>.25</td>
<td>-0.15</td>
</tr>
<tr>
<td>SSIS Self-Control</td>
<td>38</td>
<td>6.76</td>
<td>4.62</td>
<td>34</td>
<td>8.50</td>
<td>3.30</td>
<td>.13</td>
<td>-0.25</td>
</tr>
<tr>
<td>Total SSIS score</td>
<td>38</td>
<td>54.72</td>
<td>34.74</td>
<td>34</td>
<td>67.56</td>
<td>24.68</td>
<td>.022*</td>
<td>0.27</td>
</tr>
<tr>
<td>SSIS Externalising</td>
<td>38</td>
<td>9.31</td>
<td>10.48</td>
<td>34</td>
<td>11.05</td>
<td>5.05</td>
<td>.036*</td>
<td>-0.43</td>
</tr>
<tr>
<td>SSIS Bullying</td>
<td>38</td>
<td>1.63</td>
<td>2.65</td>
<td>34</td>
<td>2.11</td>
<td>2.31</td>
<td>.57</td>
<td>-0.09</td>
</tr>
<tr>
<td>SSIS Hyperactivity/Inattention</td>
<td>38</td>
<td>7.28</td>
<td>6.32</td>
<td>34</td>
<td>10.64</td>
<td>4.35</td>
<td>.004*</td>
<td>-0.55</td>
</tr>
<tr>
<td>SSIS Internalising</td>
<td>38</td>
<td>3.15</td>
<td>3.39</td>
<td>34</td>
<td>4.85</td>
<td>3.79</td>
<td>.002*</td>
<td>-0.40</td>
</tr>
<tr>
<td>SSIS Problem Behaviours Total</td>
<td>38</td>
<td>18.34</td>
<td>18.32</td>
<td>34</td>
<td>27.91</td>
<td>13.79</td>
<td>.007*</td>
<td>-0.50</td>
</tr>
<tr>
<td>Academic Competence</td>
<td>38</td>
<td>7.79</td>
<td>8.20</td>
<td>34</td>
<td>12.44</td>
<td>7.96</td>
<td>.012*</td>
<td>0.50</td>
</tr>
</tbody>
</table>

*Note. M= Mean; SD = Standard Deviation; SSIS= Social Skills Improvement System. *p value based on Wilcoxon Signed Ranks Test with matched data (n = follow up).*

*p<.05
**p<.01
***p<.001
There was a significant difference between the baseline and follow up scores in SSIS Assertion ($p=.001$), SSIS Responsibility ($p=.006$), and SISS Empathy ($p=.002$). There was a significant difference between the baseline and follow up scores in the Total SSIS score, that is the Total Social Skills score ($p=.022$). There were significant differences between baseline and follow up in SSIS Problem Behaviours, including Externalising ($p=.036$), Hyperactivity/Inattention ($p=.004$), SSIS Internalising ($p=.002$) and SSIS Problem Behaviours total score ($p=.007$). There was a significant difference between baseline and follow up scores in SSIS Academic Competence ($p=.012$). The number of children who had complete baseline and follow-up data was 34. Of the four children with no complete data, two children were away during the follow-up data collection period and two assessment forms were not returned to the researcher from the teacher.

**Hypotheses**

Hypothesis 1: Children will improve in their pretend play skills, language, social and emotional skills across the seven-month period was partially supported through these findings. Children significantly improved in their elaborate play (measured by the PEPA combined score on the ChIPPA) as well as their object substitution with conventional toys (measured by the NOS conventional score on the ChIPPA). This demonstrates that children improved in their pretend play skills over the seven-month period. Children significantly improved in their expressive language (as measured by recalling sentences on the CELF-4), therefore supporting the language aspect of the hypothesis. Children significantly improved in their social skills (as measured by the SSIS), therefore supporting the hypothesis. Children did not improve in their emotional regulation as measured by the SDQ, therefore this aspect of the hypothesis was not supported.

Hypothesis 2: Children will improve in their academic competence across the seven-month period was supported. Children significantly improved in their academic competence
as measured by the SSIS over the seven-month period. Therefore, this hypothesis was supported.

Aim Two Results

Aim Two: To determine the effect of the Learn to Play program on pretend play, language, social and emotional skills and academic competence of children participating in the Learn to Play program for seven months.

Hypothesis: The Learn to Play program will have a medium effect on the pretend play, language, social, emotional and academic skills of children across the seven-month period.

In order to ascertain the effect of the Learn to Play Program on the changes in the children’s play, language, social skills and academic competence, the effect size was measured using Cohen’s $d$. Cohen’s $d$ can be interpreted as having a small ($d=0.2$), medium ($d=0.5$) or large ($d=0.8$) effect, which is particularly relevant in the behavioural sciences (Cohen, 2013). Cohen’s $d$ works best when sample sizes are similar (as per this study). The effect sizes using Cohen’s $d$ are reported in Table 5.1-5.5. The variables which had a medium – high effect will now be discussed.

SSIS Assertion ($d=0.65$), ERRNI Forgetting ($d=0.59$) and SSIS Academic Competence ($d=0.50$), had a medium size effect which indicates that the Learn to Play Program had a positive effect on the children’s development of assertion and academic skills from baseline to follow up. The largest effect size was the ERRNI Mean Length of Utterance in words (MLU) ($d=2.72$) followed by ERRNI Ideas ($d=1.26$). It can be concluded that the Learn to Play Program had a high effect on the narrative skills of children participating in the study.

The hypothesis was partially supported: The Learn to Play program will have a medium effect on the pretend play, language, social, emotional and academic skills of
children across the seven-month period as the results showed that the Learn to Play Program had an effect on some variables of the SSIS and ERRNI.

**Aim Three Results**

Aim Three: To determine whether pretend play predicts language, social, emotional and academic skills in a sample of children with a diagnosed disability and/or developmental delay.

Hypothesis: Pretend play predicts language, social, emotional and academic skills.

Following on from Aim Two, it was important to determine whether a child’s play skills were predictive of language, social, emotional and academic skills. The researcher hypothesised that play would predict social skills and language skills, based on prior research of the link between pretend play and social and language skills (Ashiabi, 2007; Christie & Roskos, 2006; Drewes & Schaefer, 2010; O’Connor & Stagnitti, 2011; Uren & Stagnitti, 2009). As NOS and PEPA variables were strongly correlated (.809**), these play skills were analysed separately. PEPA combined and NOS combined scores were used as this accounts for both conventional and symbolic play.

To examine whether play ability (that is object substitution or elaborateness of play) predicted narrative skills, language, social, emotional and academic skills a Generalised Estimation Equation (GEE) (Liang & Zegler, 1986) was carried out because a GEE is suitable for samples under 100. A GEE was chosen to investigate the predictive nature of play on narrative, language, social, emotional and academic skills as GEE is a statistical approach that is used to fit a model for repeated data analysis (Wang, 2014). The GEE was chosen as the preferred data analysis method as the GEE can account for co-variates (Wang, 2014) (time, age, and baseline scores). The results are displayed in Tables 5.6-5.12 and include the statistics B (accounts for change over time), std. Error (approximate standard
deviation of the sample population (Phast, 2017), confidence intervals (a range of values which are likely (95% sure) to contain the mean (Phast, 2017), Wald Chi-Square (a test to determine whether explanatory variables are significant (Dallal, 2003), df (degree of freedom the number of independent variables assigned to one distribution) (Dallal, 2003) and Sig. (Significance).

A GEE was conducted with the variables that showed a significant change from baseline to follow up in Aim One to see whether elaborate play and/or object substitution (an important component of the Learn to Play Program) at baseline predicted any of the changes in ERRNI MLU, Recalling Sentences, SSIS Total Score and SSIS Academic Competence at follow up. This analysis was conducted to determine whether pretend play is a predictor of certain areas of development over time. The GEE was also completed based on the results of Aim Two which showed that Learn to Play had a large effect on EERNI MLU. Age was also included in the GEE to take into account the natural maturation of the participants in this study over the seven-month period. Tables 5.6-5.12 present the results of the GEE.

A GEE was carried out with PEPA combined raw score (elaborate play at baseline) as the independent variable and ERRNI MLU (narrative) as the dependent variable at follow up. The subject variable was the ID of the child, the Factor was Time, the co-variate was age. ERRNI MLU follow up score was chosen due to the large effect of the Learn to Play Program on the EERNI MLU (narrative) in Aim Two.
Table 5.6

**GEE: PEPA Combined (pre) Prediction on ERRNI MLU (post): (n=32)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>Lower</th>
<th>Upper</th>
<th>Wald Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>age in years</td>
<td>.033</td>
<td>.013</td>
<td>-.003</td>
<td>.004</td>
<td>.016</td>
<td>1</td>
<td>.89</td>
</tr>
<tr>
<td>PEPA combined</td>
<td>.000</td>
<td>.001</td>
<td>.006</td>
<td>.059</td>
<td>5.80</td>
<td>1</td>
<td>.016</td>
</tr>
</tbody>
</table>

Table 5.6 demonstrates that elaborate play (as measured through the PEPA combined score, taking into account both conventional and symbolic play) was significant in predicting a child’s narrative skills MLU at follow up \( (p=.016) \).

Table 5.7 presents the GEE carried with PEPA combined raw score (elaborate play at baseline) as the independent variable and the SSIS total raw score (social skills) as the dependent variable at follow up. The subject variable was the ID of the child, the Factor was Time, the co-variates were age and the baseline score for SSIS Total raw score.

Table 5.7

**GEE: PEPA Combined Raw Score (pre) Prediction of SSIS Total Raw Score (post) (n=26)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Std. Error</th>
<th>Lower</th>
<th>Upper</th>
<th>Wald Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time * PEPA combined pre score</td>
<td>.403</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>age in years</td>
<td>1.65</td>
<td>1.80</td>
<td>-1.891</td>
<td>5.19</td>
<td>.835</td>
<td>1</td>
<td>.360</td>
</tr>
</tbody>
</table>

Note. PEPA combined pre = The number of elaborate play actions in the conventional and the symbolic session at baseline; sig. = significance ≤0.05

Note. PEPA Combined pre score = Percentage of elaborate play actions in the conventional and symbolic session at baseline; sig. = significance ≤0.05

145
Highlighted in Table 5.7, PEPA Combined raw score at baseline together with time (between baseline and follow up assessments) was predictive of SSIS Total raw scores at follow up ($p = .000$). This is interpreted as the changes in the participant’s overall social skills (measured through SSIS Total raw scores) was predicted by the participant’s elaborative play skills (measured by the PEPA) over time (that is, over the seven-month period). Age was not significant.

Table 5.8 presents the GEE carried with PEPA combined raw score (elaborate play at baseline) as the independent variable and the CELF-4 (recalling sentences) as the dependent variable at follow up.

Table 5.8

<p>| GEE: PEPA Combined Raw Score (pre) Prediction on Recalling Sentences (post) (n=29). |
|-----------------------------------------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>95% Wald Confidence Interval</th>
<th>Hypothesis Test</th>
<th>Wald Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEPA combined pre score</td>
<td>.063</td>
<td>.0242</td>
<td>.016</td>
<td>.111</td>
<td>6.820</td>
<td>1</td>
<td>.009</td>
</tr>
<tr>
<td>age in years</td>
<td>.755</td>
<td>1.980</td>
<td>-3.126</td>
<td>4.636</td>
<td>.145</td>
<td>1</td>
<td>.703</td>
</tr>
</tbody>
</table>

Table 5.8 highlights that the PEPA Combined score was predictive of the post recalling sentences score ($p = .009$). Therefore, elaborate play (as measured by the PEPA Combined score) was predictive of a child’s language in terms of recalling sentences at follow up. Age was not significant.
Table 5.9 presents the GEE carried with PEPA combined raw score (elaborate play at baseline) as the independent variable and the SSIS Academic Competence raw score as the dependent variable at follow up. The subject variable was the ID of the child, the Factor was Time, the co-variates were age and the baseline score for

Table 5.9

GEE: PEPA Combined Raw Score (pre) Prediction on SSIS Academic Competence (post)
(n=34).

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>Lower</th>
<th>Upper</th>
<th>Wald Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEPA combined pre score</td>
<td>.082</td>
<td>.0250</td>
<td>.033</td>
<td>.131</td>
<td>10.817</td>
<td>1</td>
<td>.001</td>
</tr>
<tr>
<td>age in years</td>
<td>-.008</td>
<td>.0093</td>
<td>-.026</td>
<td>.010</td>
<td>.784</td>
<td>1</td>
<td>.376</td>
</tr>
</tbody>
</table>

*Note. PEPA Combined pre score= Percentage of elaborate play actions in the conventional and symbolic session at baseline; sig.= significance ≤0.05

Table 5.9 shows that the PEPA Combined score was predictive of the post SSIS academic competence score (p = .001). Therefore, a child’s elaborate play at baseline predicted a child’s academic competence score as measured on the SSIS. Age was not significant.
Table 5.10 presents the GEE for NOS combined raw score (elaborate play at baseline) as the independent variable and ERRNI MLU (narrative) as the dependent variable at follow up. The subject variable was the ID of the child, the Factor was Time, the co-variate was age.

Table 5.10

**GEE: NOS Combined (pre) Prediction on ERRNI MLU (post) (n=32)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>Lower</th>
<th>Upper</th>
<th>Wald Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOS combined pre</td>
<td>.208</td>
<td>.0852</td>
<td>.041</td>
<td>.375</td>
<td>5.958</td>
<td>1</td>
<td>.015</td>
</tr>
<tr>
<td>age in years</td>
<td>.025</td>
<td>.7070</td>
<td>-1.361</td>
<td>1.411</td>
<td>.001</td>
<td>1</td>
<td>.972</td>
</tr>
</tbody>
</table>

*Note.* NOS combined pre = Number of object substitutions in the conventional and the symbolic session at baseline; sig. = significance ≤0.05

In Table 5.10, NOS combined raw score at baseline was strongly predictive of Post ERRNI MLU scores at follow up \( (p = .015) \), thus narrative skills (measured through MLU) was predicted by a child’s number of object substitutions used in play (measured through the NOS combined raw score).
Table 5.11 presents the GEE carried out with NOS combined raw score (the number of object substitutions at baseline) as the independent variable and the SSIS Academic Competence raw score as the dependent variable at follow up.

Table 5.11

**GEE: NOS Combined Raw Scores (pre) Prediction on Post SSIS Academic Competence (post) (n = 34).**

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Std. Error</th>
<th>Lower</th>
<th>Upper</th>
<th>Wald Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>age in years</td>
<td>-.008</td>
<td>.009</td>
<td>-0.26</td>
<td>.009</td>
<td>.882</td>
<td>1</td>
<td>.348</td>
</tr>
<tr>
<td>NOS combined pre</td>
<td>.652</td>
<td>.1544</td>
<td>.350</td>
<td>.955</td>
<td>17.856</td>
<td>1</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 5.11 highlights that the NOS combined raw score was predictive of the post SSIS academic competence score \((p = .000)\). Therefore, the number of object substitutions performed in play at baseline predicted a child’s academic competence score as measured on the SSIS. Age was not significant.
Table 5.12 presents the GEE carried with NOS combined raw score (the number of object substitutions at baseline) as the independent variable and the SSIS total raw score (social skills) as the dependent variable at follow up.

Table 5.12

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>Lower</th>
<th>Upper</th>
<th>Wald Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>age in years</td>
<td>1.49</td>
<td>1.89</td>
<td>-2.217</td>
<td>5.19</td>
<td>5.19</td>
<td>1</td>
<td>.431</td>
</tr>
<tr>
<td>NOS combined pre</td>
<td>2.266</td>
<td>0.508</td>
<td>1.20</td>
<td>3.262</td>
<td>19.89</td>
<td>1</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note. NOS Combined pre score = Number of object substitutions in the conventional and symbolic session at baseline; sig. = significance ≤0.05

Table 5.12 highlights that the NOS combined raw score was predictive of the post SSIS total score \( (p = .000) \). Therefore, the number of object substitutions performed in play at baseline predicted a child’s social skills at follow up. Age and the pre score for SSIS Total score were not significant.
Table 5.13 presents the GEE carried with NOS combined raw score (the number of object substitutions at baseline) as the independent variable and the recalling sentences raw score (language) as the dependent variable at follow up.

Table 5.13

GEE: NOS Combined Raw Score (pre) Prediction on Recalling Sentences (post) (n = 29).

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>95% Wald Confidence Interval</th>
<th>Wald Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>age in years</td>
<td>.646</td>
<td>1.48</td>
<td>-2.26 - 3.55</td>
<td>.189</td>
<td>1</td>
<td>.664</td>
</tr>
<tr>
<td>NOS combined pre</td>
<td>.574</td>
<td>.1299</td>
<td>.320 - .829</td>
<td>19.54</td>
<td>1</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note. NOS Combined pre score= Number of object substitutions in the conventional and symbolic session at baseline; sig.= significance ≤0.05

Table 5.13 highlights that the NOS combined raw score was predictive of the post recalling sentences score on the CELF-4 (.000). Therefore, the number of object substitutions performed in play at baseline predicted a child’s expressive language at follow up. Age and the pre score for recalling sentences were not significant, therefore did not have an impact on the results.

The results demonstrate that NOS was highly significant in predicting expressive language (measured through the CELF-4), narrative (ERRNI MLU), social skills (total SSIS score) and academic competence (measured through the SISS). Elaborate play (measured through the PEPA score) and time were predictive of social skills (total SISS score). Elaborate play (measured through the PEPA score) was highly predictive of academic competence (measured through the SSIS). The Hypothesis: pretend play predicts language, social, emotional and academic skills was therefore supported.
Gender

A Mann Whitney U Test was completed to determine any difference between gender (male and female) in play, language, social, emotional and academic skills. A Mann Whitney U Test was chosen as it allows two groups or more to be compared without making the assumption that the values are normally distributed (Stangroom, 2015). Gender differences in Post Raw PEPA combined scores were significant ($p = 0.25$). Table 5.14 highlights that females were significantly stronger in their elaborative play skills than boys at follow up. There were no significant differences between males and females in language, social, emotional and academic skills.

Table 5.14

<table>
<thead>
<tr>
<th>Gender differences in Post Raw PEPA Combined Scores: Males ($n=21$) and Females ($n=11$) (total $n = 32$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>SD</td>
</tr>
<tr>
<td>P value</td>
</tr>
<tr>
<td>Post Raw PEPA Combined Score</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>37.88</td>
</tr>
<tr>
<td>44.11</td>
</tr>
<tr>
<td>0.25*</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>91.54</td>
</tr>
<tr>
<td>60.50</td>
</tr>
</tbody>
</table>

Note. M= Mean; SD = Standard Deviation; Post Raw PEPA Combined Score= Percentage of elaborate play actions in the conventional and symbolic session at follow up assessment.

* $p<.05$

** $p<.01$

*** $p<.001$

Clinical Observations

During the play and language assessments, it was difficult to engage some children with the toys/materials. When participating in the ChIPPA assessment, some children would not sit on the floor with the examiner, but would try to leave the room. Other children would pack up the toys early when they had enough, thus indicating a shorter time in play. Children who had higher play ability, tended to sit for longer periods on the floor, and play with the
toys for longer periods. Some children on the CELF and ERRNI walked away from the table when they did not understand the task asked of them. Other children remained at the table with the examiner, but when they did not understand a question or a task would stare at the examiner.

Conclusion

Aim One in Study Two investigated if there were any changes in a child’s development (pretend play, language, social and emotional skills) and learning (academic competence) in their first year of special or SDS schooling after participating in a Learn to Play Program across a seven-month period. The researcher hypothesised that children would improve in their pretend play skills, language, social, emotional and academic skills across the seven-month period. This hypothesis was partially supported as demonstrated through the significant changes in a child’s pretend play, expressive language, social skills and academic competence. There was no significant difference in a child’s narrative language skills or emotional development.

Aim Two focused on the effect of the Learn to Play program on pretend play, language, social and emotional skills and academic competence of children participating in the Learn to Play program for seven months. The hypothesis was that The Learn to Play Program will have a medium effect on the pretend play, language, social, emotional and academic skills of children across the seven-month period. The Learn to Play program had a large effect on the narrative skills of children participating in the study, therefore partially supporting the hypothesis.

Aim Three was to determine whether pretend play ability at the beginning of the year predicted language, social, emotional and academic skills in a sample of children with a diagnosed disability and/or developmental delay. The hypothesis was that pretend play predicts language, social, emotional and academic skills. The results demonstrated that NOS
predicted language (recalling sentences), narrative MLU, social skills and academic competence. Elaborate play plus time predicted social skills, elaborate play predicted narrative MLU, language (recalling sentences) and academic competence. The hypothesis was therefore supported.

Figure 5.1 presents Study Two findings in relation to the Gervais Framework. The main findings that emerged from Study Two were that child’s development and learning improved from baseline to follow up in the areas of play, expressive language, social skills, academic competence and narrative development which aligns with the Specific Dimension of the Framework. A child’s object substitution skills were predictive of their narrative and social skills and females had higher level play skills than the male participants. The Structural dimension highlights that the Learn to Play Program was to be run for a minimum of one hour once a week, with play materials chosen by the schools. The Strategic Dimension highlights that the policies and management practices of the schools needed to be consistent in terms of management support for the Learn to Play Program particularly with integrating the Learn to Play Program within the existing school curriculum. The Operational Dimension highlights how the program was structured at each school, in terms of the duration of the play program (run from Term 2- Term 4), assessments conducted at baseline and follow up and support and training provided to staff involved in the Learn to Play Program. The Needs that arose from this study include an assessment of children’s play, language, social skills and academic competence pre and post participation in a Learn to Play Program (at the start of the year and the end of the school year) as well as a sensitive language assessment relevant for children with developmental delay and disability. The Constraints included an increase in problem behaviours (for example hyperactivity) exhibited by some children participating in the study from baseline to follow up and difficulty engaging some children in the standardised assessments. This chapter has supplemented stage two of
Moscoso et al., (2013), the evaluation of the implementation of the program evaluation process, with results and outcomes presented within the Gervais Framework. The following chapter, Chapter Six will present the discussion.
Constraints
The problem behaviours (including externalising, internalising, hyperactivity/inattention and problem behaviour total score) increased on the SSIS from baseline to follow up assessment.

During the play and language assessments, it was difficult to engage some children with the toys/materials.

Resources & Structure
- The Learn to Play Program was to run at minimum 1 hour each week. Schools decided on the play activities chosen for the children.
- Schools used their own play materials.
Children spent between 10-15 minutes (depending on the school) at each play station completing 3-4 play stations in one session.

Policies and Management Practices
- Management allowed each school to run a Learn to Play Program
- Safe environment for children to play
- Monitoring of the program by researchers
- Learn to Play model linked to learning goals
- Learn to play fits within the school’s learning program

Processes, Activities & Behaviours
Staff Training provided on the Learn to Play Program at the start of the study
Children assessed developmentally pre and post program by researcher (term 1 and term 4 2015)
The Learn to Play activities are to be chosen by the school, or through the use of the Learn to Play Manual (Karen Stagnitti, 1998).
To the school’s discretion they can decide how many play activities are chosen for each session.
Staff are to use the Learn to Play principals in each session.
The Learn to Play Program is run from Term 2 - Term 4 (OR begin immediately after the baseline assessments).
Schools were able to choose whether they set up the program in the classroom’s or in a designated play space.
The researcher was available throughout the school year to answer any questions.

Needs
Pre and post assessment of children’s play, language, social and academic performance skills each year to support an ongoing Learn to Play program within the school setting.
A Standardised language assessment which is sensitive to the needs of children with Developmental Delay/Disability.

External Environment
Some children were away or were not able to complete follow up assessments.

Figure 5.1. The Model of the Dimensions of a Program: Study Two Findings

Results/Impacts
Significant differences between the baseline and follow up scores in PEPA raw combined (elaborate play) and NOS raw combined
Significant difference between the baseline and follow up scores in Recalling Sentences
Significant difference between the baseline and follow up scores in SSIS Assertion, Responsibility, Empathy (p=.002), Total SSIS score, SSIS Problem Behaviours, including Externalising, Hyperactivity/Inattention, SSIS Internalising and SSIS Problem Behaviours total score. There was a significant difference between baseline and follow up scores in SSIS Academic Competence.

Learn to Play Program had a positive effect on the children’s development of assertion and academic skills from baseline to follow up.
The most significant result was the ERRNI Mean Length of Utterance in words (MLU) with the Learn to Play Program, demonstrating that children improved in the amount of words they used within their stories, from baseline to follow up.
Changes in the participant’s overall social skills (measured through SSIS Total raw scores) was predicted by the participant’s elaborative play skills (measured by the PEPA) Play, including a child’s ability to use objects to represent abstract things (object substitution) is predictive of a child’s narrative skills and social skills.
Females were significantly stronger in their elaborative play skills than boys at follow up.
CHAPTER SIX

STUDY TWO: DISCUSSION

The previous chapter, Chapter Five presented the results for Study Two. Chapter Six will discuss the findings from Study Two and conclude part two of this program evaluation (Moscoso et al. 2013). This chapter will firstly begin by discussing play skills and the changes and the impact of the Learn to Play Program. Discussion on social skills, language and narrative and academic competence and the impact of the Learn to Play Program on these areas of development follows. This chapter will conclude with strengths, limitations and conclusions to Study Two.

Play Skills: Changes and the impact of the Learn to Play Program

Elaborate play.

The significant difference between baseline and follow up PEPA combined scores demonstrated a positive increase in children’s ability to sequence their play actions. PEPA reflects how well a child can elaborate, that is use their imagination and spontaneously develop play ideas during play (Stagnitti, 2016). Elaborate play on the ChIPPA is a measure of a child’s ability to extend ideas in pretend play and the two terms – pretend play and elaborate play will be used interchangeably throughout the discussion. Elaborate/pretend play involves sequencing ideas and actions, constructing stories, organisation, developing language and planning skills (Rutherford, 2003; Stagnitti, Unsworth & Rodger, 2000). During the ChIPPA, a child’s elaborate play is assessed in both the conventional play section (using toys with meaning, e.g. uses the toys as a farm set) and during the symbolic play section (unstructured objects in which the child imposes meaning, e.g. boxes, tins and cloth dolls). PEPA combined is a combination of the elaborateness scored in both the conventional
play section and the symbolic play section for a child. For children to score a play action as ‘elaborate’ they must be imposing meaning on a particular object or action, for example during the conventional play section, if a child is walking the doll over to the farm animal or verbally telling a story, this is scored as an elaborate play action (Stagnitti, 2007). During the symbolic play section, if a child is making a house for the cloth doll out of boxes, or putting the cloth doll to bed in a box this is scored as an elaborate play action (Stagnitti, 2007). An increase in elaborate play scores means that a child has developed their pretend play skills, being able to extend their play to include more complex sequences, use of character and impose imagination.

Children were participating in a Learn to Play Program for a minimum of one hour each week over the seven-month period in between baseline and follow up assessments, at every school. Age was considered as a co-variate in the GEE analysis to account for natural maturation of a child. Age was not significant, therefore the play ability of the child changed, independent of age. These results demonstrate that children have improved in their ability to add more complexity to their play stories, extend their play longer than one play action and have developed the ability to show imagination. For children with developmental delay and disability, the complexity of play (elaborateness) is delayed, as well as their play sequences (Barton, 2008). Therefore, the shifts demonstrated in the elaborate play of children in this study are very important and have implications for the Learn to Play program in specialist schools.

Malone (1999) describes play as an experience that a child can participate in which provides meaning to things that they may not have experienced before. The Learn to Play Program within each of the school settings, provided children with the opportunity to participate in a number of play scenarios (for example, zoo play, fishing, doctors, shops, doll play, building, aeroplane trips) through rotating play stations several times over the period of
The sessions were focused on supporting children to develop their pretend play ideas and step outside of reality and impose meaning on what they were playing. The Learn to Play Program within each school was also based on the 10 key skills to Learn to Play (Stagnitti, 1998; Stagnitti, 2015) as presented in Chapter Four. The 10 key skills include: Play sequences, describing and explaining the play, object substitution, recognising and describing decentration (use of doll), recognising and facilitating play scripts, joining the child in role play, talking about the play: attributing properties to objects, referring to absent objects and actions, adding problems in the play narrative and predicting what will happen next. This means that all schools were running Learn to Play sessions based on developing the same skills in children, creating consistency throughout the program.

Nicolopoulou (2010) argue that for play to be included in an educational setting, it must be systematically integrated into the curriculum in structured ways that promote their engagement and imagination. Therefore, structuring the Learn to Play within the school settings with the 10 key skills and guidelines for staff, meant that children were provided with similar opportunities to develop their elaborate play. In 2015, Nicolopoulou, Cortina, Ilgaz, Cates, and de Sá studied the impact of a story telling/acting program on a child’s narrative/oral language skills, emergent literacy, pretend play and social skills. It was a structured program where children were encouraged to act out stories that they had previously developed with their peers. This allowed for play and imagination as well as social skills to be developed. Within the Nicolopoulou (2010) study, children in the experimental group improved in all areas when compared to the control group therefore supporting the link between a structured play program and the development of pretend play. Nicolopoulou (2010) further builds on the views of Vygotsky (1976) around the ‘Zone of Proximal Development’, explaining that pretend play from a developmental point of view involves sharing imaginative play situations with peers, collaborating in a role that is voluntary, but
also governed by ‘rules’. These rules are set by the child, not an adult, and are structured around the play. Rakoczy, Tomasello and Striano (2006) studied the ability of typically developing two (24 children) and three-year olds (24 children) to act accordingly to implicit rules during pretence. Findings of Rakoczy et al., (2006) revealed that children at this age, can understand the implied ‘rules’ of a pretend play scenario, and act appropriately. Children would often ‘protest’ if the examiner/adult did something outside of the ‘rules’ e.g. forgetting to cook the carrots before eating them (Rakoczy et al., 2006). This research supports the guidelines for Learn to Play, including both peer and adult involvement as co-players with children.

Typical Play Indicators, Total Time Playing and Total Play Actions were not found to show significant differences from baseline to follow-up assessment, however the raw scores did increase, showing a positive change. Typical Play Indicators involve the assessor completing the clinical observations following the administration of the ChIPPRA assessment. Typical Play Indicators consider variables such as whether children complete both the conventional and symbolic play sessions, whether they use a narrative in the play, use of property attributions and refer to absent objects in play. Total Time Playing indicates whether a child has increased in the time spent playing during the ChIPPRA from baseline to follow up.

A study by Gmitrova and Gmitrov (2003) found that an increased time spent engaged in play was associated with pretend play when the organisation of play increased and this was also argued to be an indication of increase in cognition. Children with developmental delay and/or disability were observed to spend less time involved in pretend play, as it is cognitively challenging and requires attention to remain engaged. Children with developmental delay and/or disability often packed away the toys early or removed themselves from the play scenario or room. Children in this current study demonstrated an increase in time spent playing when comparing baseline and follow up scores. This was also
in line with increases in their elaborate play (which was significant), increases in the number of objects used in substitution (NOS), particularly in conventional-imaginative play and the Typical Play Indicators on the ChIPPA. The Total Play Actions refer to how many actions were recorded on the ChIPPA assessment form. Play actions on the ChIPPA are scored under four different codes, which are elaborate actions (PEPA score), functional play actions (f), repetitive play actions (R) and behavioural play actions (B). Due to the sample group of children with developmental delay and disability it is critical that the smallest changes are also considered within the analysis and discussion. Children with developmental delay and disability make slower changes to pretend play due to their delays in development and learning (Barton, 2015). Elaborate play skills reflect cognitive capacity, in that for children to engage in pretend play they are required to solve problems, think creatively, sequence their play actions logically and develop concepts to play (Reynolds, Stagnitti, & Kidd, 2011). Considering this, when looking at the changes in the Typical Play Indicators and the time spent playing post Learn to Play Program, children had improved their play skills and perhaps if provided with a longer time frame, these results may have been significant.

Elaborate play (as measured by the PEPA) was found to be predictive of a number of other developmental components including narrative (ERRNI MLU score), social skills (SSIS Total score) (with time being a factor), language (CELF-4, recalling sentences) and academic competence (SSIS academic). Age was not significant in influencing this result, nor were the pre scores for the social or language variables. Therefore, elaborate/pretend play, the foundation to the Learn to Play Program and the key area focused on within this program was highly influential in supporting child development, including narrative, social skills (over time), language and academic competence. These findings will be further explored in this chapter under each developmental component. This finding supports the need for a Learn to Play program to be embedded into special and SDS school settings in order to
support the development of children’s pretend play skills so that they can engage in appropriate occupational roles as a player, learner and a student, all expected roles within childhood. Research shows that for children with developmental delay and disability, their pretend play and social play is limited. These findings suggest that although their pretend play is limited, this program can shift their development and learning, therefore is a critical consideration of school curriculum programs in specialist schools.

**Object substitution.**

There was an increase in the ChIPPA NOS conventional-imaginative raw score from baseline to follow up assessment, demonstrating a big shift in conventional imaginative play. This demonstrated changes in spatial use of objects (e.g. using a fence to represent a train track). Conventional imaginative object substitution is the most complex object substitution as the toys/materials already represent a specific purpose, therefore to change this purpose means that a child must use their imagination. Object substitution is a cognitive skill involved in pretend play and reflects a child’s ability to step outside reality, into imaginative play and use symbols in play (Stagnitti et al. 2000). Object substitutions have a close relationship with elaborate play actions (McCune 1981; Stagnitti et al., 2000). For a child to score an object substitution on the ChIPPA, they must impose meaning on an object to represent something else, for example, a box as a boat, a stick as a spoon, a fence as a train track. As most children participating in this study had an expressive and/or language delay paired with disability and/or developmental delay, it was expected that object substitutions may be difficult for children to improve. However, in the Learn to Play Program object substitution forms part of the 10 key skills. Therefore, when participating in the Learn to Play Program children were guided to increase their object substitutions and impose more meaning on their play. As all schools were using the 10 key skills, it is justified that the Learn to Play Program influenced the children’s development of object substitution, which was then
reflected in the significant follow up results on the ChIPPA assessment. Although increases in object substitutions in conventional play is more challenging than in symbolic play, Abbey, Sualy, Yount, Kelly-Vance, and Ryalls (2011) also found this result in their study which examined the impact of a play program on children over an 8-week program in early education settings. The sample consisted of 11 children, five in the control group and six in the intervention group. All participants had a verified language delay (diagnosed) with two out of the six children in the intervention group also having a diagnosed developmental delay. The results of this study demonstrated that the participants increased in their play skills including their object substitution skills with conventional toys.

Results of the GEE showed that NOS was highly predictive of social skills (SSIS Total score) expressive language (CELF-4, recalling sentences), academic competence (SSIS academic) and narrative (ERRNI MLU score). This has huge implications for the Learn to Play Program, as through the opportunities provided in the program to develop object substitutions, changes occurred across other developmental areas. This is consistent with the findings related to elaborate play (PEPA scores), demonstrating that both elaborate play and object substitution are key factors in a program aimed at enhancing the development and learning of children with developmental delay and disability. Although there is no current literature related to children with developmental delay and disability, these findings are supported by Stagnitti and Lewis (2005) who found that object substitution was predictive of narrative language in typically developing children. As this finding is new for children with developmental delay and disability, replicates that found for typically developing children.
Social Skills: Changes and the Impact of the Learn to Play Program

Hypothesis three was supported in the results of this study, that is, children will significantly improve in their social skills over the seven-month period. Children significantly increased in all areas of the SSIS (social skills) over the seven-month period including: assertion, responsibility, empathy, total SSIS score, problem behaviours, hyperactivity/inattention, and academic competence. It is important to note that teachers completed the pre and post assessments on the children using the SSIS. While this was pre and post Learn to Play program, children were participating in a range of schooling activities at the time of this research. Therefore, although age can be ruled out by the GEE, the impact of other school activities and programs cannot be, for example, teachers who were implementing Learn to Play skills within their classroom activities throughout the week, not just in a designated play session time.

The changes in social skills demonstrated across the seven-month period were significant. The Learn to Play Program had a medium effect on the development of assertion, a key component of social skill development. Children were exposed to a range of play situations throughout the Learn to Play Program, all of which included at least one or two peers. During the pre-school years, children are developing their ability to negotiate, cooperate and play with their peers (Fung & Cheng, 2017), for children with developmental delay and disability, this often comes much later, in their school years. The Learn to Play Program provided opportunities for children to practice their ability to talk to peers, play with peers, co-operate and negotiate all within a structured play environment with adult support. This enabled adults to facilitate the groups through prompting, modelling and guidance to children to encourage them to socially participate with their peers. Therefore, with the changes seen in social skills across the seven months, the Learn to Play Program was a
valuable contributor to developing these skills due to the supportive nature of the program, facilitated by adult whilst interacting with peers.

Pretend play and social skills are widely studied in typically developing preschool children (Li, Hestenes & Wang, 2016; Stagnitti, 2009), however there is less research carried out in school aged children or for children with developmental delay or disability. For children with Autism Spectrum Disorders, developmental delay and/or disability, social skills are reported as being delayed, including difficulty expressing emotion, empathising and lack of understanding of social cues (Laugeson, Frankel, Gantman, Dillon, & Mogil, 2012). These children also show delayed or absent pretend play (Chaundry & Dissanayake, 2015) which is also linked with a decrease in expressive language, imitation and social play (Knox & Mailloux, 1997). Children with Autism Spectrum Disorders, developmental delay and/or disability require appropriate programs within the school curriculum to support their play, language, social skills and cognition (Barton, 2008). Within special and SDS schools, the curriculum is adjusted to meet the learning needs of these children. Programs such as the Learn to Play Program, which can enhance social skills (O’Connor & Stagnitti, 2011) are beneficial for children with developmental delay and disability and for special and SDS schools to include within their curriculum.

The results of this study demonstrated that children significantly improved in their ability to be assertive across the course of the seven-month period. Assertiveness is the ability to express one’s feelings in a way which is acceptable in social situations (Han-Jong, 2014). Assertiveness is a key skill in being able to participate and engage with peers, particularly in play situations where children may need to negotiate play roles and themes. Therefore, children participating in this study have developed their skills in expressing their feelings in a socially acceptable manner. For children with developmental delay and disability changes in the ability to be assertive would be lower, as their social skills are delayed (Laugeson et al.,
Research is limited in this area, therefore can only be compared to typically developing children. A study by Li et al. (2016) examined the relationship between pretend play and social skills in a childcare environment with typically developing children using a pretend play observation checklist and the SSIS rating scales. The results of Li et al. (2016) demonstrated that pretend play was positively correlated with assertion (a skill which involves being able to say no, being able to ask favours and make requests, expressing both positive and negative feelings) (Lazarus, 1973). Li et al. (2016) found that abstract pretend play (more advanced pretend play) was positively correlated with the SSIS assertiveness score, cooperation and total SSIS score. Social pretend play was positively correlated with self-control, assertiveness and SSIS total score (Li et al. 2016). Although participants in the current study did not have abstract (or more advanced pretend play) and had developmental delay and/or disability, the results in terms of the relationships between assertiveness, social skills and play social reflected the results of Li et al’s study.

**Pretend play, object substitution and social skills.**

Elaborate play at the beginning of the program was found to be a strong predictor of social skills at the end of the program, with time being a significant factor. This means that children needed time to develop their elaborate play and social skills, which suggests that it often takes a number of sessions of Learn to Play before changes in play occur (Casey, Stagnitti, Taket, & Nolan, 2012). The number of object substitutions was also a strong predictor of social skills at the end of the program. This result demonstrates that elaborate play and object substitutions (both of which showed significant change over time) influenced a child’s development of social skills. This result is influenced by a number of factors. As seen by the significant changes in elaborate play and object substitutions, children in this study have begun to develop more complexity in their pretend play. Children developed the ability to impose meaning on objects and engage in various play scripts (stories in the play).
When a child spends longer playing, they are more engaged in the play and are often creating more complex pretend play ideas and stories. Children participated in the Learn to Play Program with children from their prep class, therefore they had the opportunity to model (copy) from their peers and learn through watching the actions of peers and staff as well as joining in with shared play. Hence, within the special/SDS school settings, teachers had set up a ‘proximal zone of development’ through shared peer play as well as capable adults modelling the play. In joining in with another child to play, a shared meaning to play together is developed and play can therefore be maintained for longer (Stagnitti, 2016).

Within the Learn to Play Program in this current study, play activities were designed to promote social engagement, firstly including modelling from a peer (e.g. if a child is pushing a truck, a peer might copy this), parallel play (play stations which allow children to play next to a peer), associate play (play activities such as doctors and shopping which include role play are used to encourage children to join in with their peers), and finally for children with a four year old level of play, the Learn to Play Program allows children to take over the play themes, cooperating and negotiating around roles (e.g. who will be the mother, father, child, grandma).

For children with developmental delay and disability, social and play skills can take a lot longer to develop due to their intellectual disability (Nader-Grosbois & Vieillevoye, 2012). In the current study, children became more social over the seven months of the Learn to Play Program. Nader-Grosbois and Vieillevoye (2012) studied whether the self-regulation of children with intellectual disability and typically developing children varied depending on the pretend play situation children were engaging in. The study found that the pre-schoolers with intellectual disability showed decreases in social engagement and involvement in pretend play, as well as difficulties with joint attention, understanding of tasks, and self-regulated requesting in play (Nader-Grosbois & Vieillevoye, 2012). The less structured the
play situation, the more challenged the children with intellectual disability were in terms of understanding the objectives of the play, cooperating with peers and engaging in pretend play (Nader-Grosbois & Vieillevoye, 2012). Therefore, embedding a Learn to Play Program using guidelines and the 10 key skills of Learn to Play (including object substitution) within the school curriculum has meant that children participating in the current study were provided with the opportunity to engage in a social play within a supported and structured way (e.g. through playing at a station, with the support of a teacher to assist them with play ideas). The children in the current study were exposed to social play situations on a regular basis (minimum once a week) thus, participation in the Learn to Play Program has provided children with the opportunity to develop their pretend play skills and social engagement with their peers. The results of the current study concur with a study by O’Connor and Stagnitti (2011) on a Learn to Play Program within a specialist school setting, which found significant differences in social skills between the Learn to Play group and the control group. However, these findings in terms of the predictive nature of pretend play on social skills, is new and significant within this field of research.

Responsibility.

Significant changes in the responsibility scores of the children were found in the current study. Responsibility can be linked to pretend play, as the responsibility score on the SSIS measures a child’s ability to make decisions for themselves (Gresham, 2008). Child-initiated play is a key component in Learn to Play in the development of a child’s pretend play skills (Stagnitti, 2009) and is the aim of the Learn to Play program. In order for a child to use their imagination to create stories in play, they need to make decisions, for example, who is going to be the shopkeeper, who is going to play the customer and what play materials are they going to use. Pretend play is argued to facilitate children to develop their ability to sequence, plan and organise their play in a logical manner (Uren & Stagnitti, 2009). As
children developed their pretend play skills throughout the Learn to Play Program, they significantly increased their ability to sequence, plan and organise their play as evidenced by the significant increase in the PEPA combined score. Linking back to the study by Nader-Grosbois and Vieillevoye (2012), who found that planning and understanding of play is challenging, Whitebread et al. (2009) emphasised the importance of pretend play and its connection with cognition, including the ability to problem-solve and self-regulate. Whitebread et al. (2009) studied the problem-solving abilities of 3-5-year-old children who were involved in either a ‘play’ condition or a ‘taught’ condition. Results showed that children who engaged in the ‘play’ condition were more likely to be able to self-regulate and problem solve (Whitebread et al. 2009). This can be linked to the ‘responsibility’ score of the SSIS, as for children to make decisions for themselves they need to be able to make decisions within the play.

**Empathy.**

Empathy refers to the ability to perceive, relate and respond appropriately to other’s feelings and experiences emotionally (McDonald, Baker, & Messinger, 2016). Children improved in empathy over the course of the seven-month Learn to Play Program. In typical development empathy usually starts to emerge around the age of one to two years of age (McDonald et al., 2016), at a similar time to pretend play. Early pretend play (e.g. children between 12 – 18 months) revolves around the child and events that are happening to the child at that particular time (e.g. eating, sleeping, bathing) (Fenson & Ramsay, 1981). After 18 months – 2 years typically developing children begin to understand that other people have feelings and thoughts) and they begin to develop empathy along with this increase in understanding (Fenson & Ramsay, 1981). When children are developing roles, such as mother and baby, they are referencing somebody outside themselves, which refers to decentration (Fenson & Ramsay, 1981). For children with developmental delay and/or
disability this does not often occur spontaneously, and therefore needs to be fostered. Many of the play scripts in the Learn to Play Program were nurturing roles (e.g. playing a parent, being a doctor and being a vet) which involved a sense of empathy (e.g. cuddling the baby when it’s crying, helping the sick patient or animal). These play scripts may have influenced children in this study to be empathetic, through their experiences in pretend play.

**Joint attention and social skills.**

As well as language development, joint attention is related to the social skills of children (Schietecatte, Roeyers, & Warreyn, 2012), with many studies focusing on the difficulty for children with Autism Spectrum Disorders to engage in joint attention behaviours with peers (Charman et al., 2003; Schietecatte et al., 2012). Children with ASD or deficits in play, often have limited joint attention and difficulty maintaining social relationships, therefore making social play challenging (Campbell, 2018). Freeman et al. (2015) studied the connection between early joint attention skills (in three-year-old children with autism) and how this impacted on friendship development five years later (when children were eight-years-old). The findings revealed that children who had better joint attention had stronger friendships (more closeness and less conflict with peers) five years later. An important aspect in the development of social skills is that of friendships.

Friendships are more difficult for children with disability, and in particular Autism Spectrum Disorder to develop (Freeman, Gulsrud, & Kasari, 2015). Therefore, in developing social skills in children within the special and SDS school settings, the importance of establishing joint attention (between the child, a peer and a play object/event) cannot be overestimated.

Joint attention involves shifting attention between a person and an object/toy or action (Wong & Kasari, 2012).

Joint attention (also called focussed attention in Learn to Play) is a focus of the Learn to Play Program through the key skills of – describing and explaining the play and joining the
child in role play. These skills involve engaging a child with toys or objects through shared attention and gaze. This allows the adult to initiate moments with a child, show interest and engage with them. Being critical skills involved in the Learn to Play Program, this helped to develop children’s joint attention throughout their participation in the play program.

Although the link between the Learn to Play program and joint attention has not been researched, findings in the literature have shown that pretend play and joint attention can significantly impact on other areas of development, including expressive language in children with Autism Spectrum Disorder (Wong & Kasari, 2012).

**Problem behaviours and hyperactivity.**

The results of the current study reveal that the problem behaviours (including externalising, internalising, hyperactivity/inattention and problem behaviour total score) increased on the SSIS from baseline to follow up, meaning that the children’s behaviour got worse from baseline to follow up. This result was unexpected, particularly with the significant positive changes in play, social skills, expressive language and academic competence. An explanation for the increase in the problem behaviours in the children participating in the study is that as the children progress through prep (their first year of school), the demands and expectations that the school curriculum places on a child’s behaviour, learning and attention increases. At the beginning of the school year, teachers were focused on ensuring children were feeling comfortable in the school environment. As the year progressed, children were expected to participate in more structured learning tasks, as observed by the researcher upon follow up data collection. As the follow up assessments were completed in December, at the end of the school year, children may have been tired from the demands of schooling throughout the year. Although there is no research discussing the link between the Learn to Play Program and problem behaviours, literature reported by Norbry (2015) with a sample of typically developing children in their first year of schooling
in England, revealed that younger children (children who were 4 years and 9 months compared with those who were 5 years 10 months) presented with more problem behaviours, poorer academic skills and language delay at the end of the first year of school. This was associated with less maturity and school readiness skills, which is seen in children with developmental delay and disability. Janus (2011) investigated the school readiness of children with developmental delay/disability across Mexico, Australia and Canada. The results were similar across the three countries, with children who have physical impairment, visual and hearing impairments and behavioural problems having most difficulty with their readiness and transition into the school learning environment when compared to typically developing peers (Janus, 2011). The connection with the current study can be made in terms of children with disability and developmental delay presenting with delayed school readiness skills and maturity (Janus, 2011), as well as delayed cognition.

Language and Narrative: Changes and the impact of the Learn to Play Program

Expressive language.

The findings in this study demonstrated that children significantly improved in their expressive language (through the recalling sentences component on the CELF-4 assessment) from baseline to follow up, post Learn to Play Program. Age was not significant. This will be discussed in relation to the opportunities that the Learn to Play program provides in developing language. The development of language and play are closely related. Children learn to express themselves, use facial expressions and gesture to get their messages across to others during play (McCune, 1995). One-way children express this is through pretend play and the opportunity to engage in narration, social conversation with peers as well as negotiation (Bergen, 2002). Children participating in the Learn to Play Program engaged in a number of play scenarios with their peers. These play scenarios were designed to allow shared spaces, social conversation as well as negotiation in roles (e.g. shop keeper and
customer). There is evidence on the link between pretend play and typical development within the literature, however like social skills, language in children with developmental delay and disability is less reported. Conner, Kelly-Vance, Ryalls and Friehe (2014) conducted a play intervention with ten two year old children over a four week period, with the aim of enhancing the children’s play and language skills. Five participants received the play intervention (reading a book and playing with a toy set) and five children were in the comparison group (no intervention). All children were assessed using the Preschool Language Scale (PLS), a vocabulary assessment and the Play in Early Childhood Evaluation System (PIECES). Results demonstrated that children who received the play intervention improved in their pretend play skills, as well as their expressive language skills and comprehension when compared to the comparison group (Conner et al., 2014). In a study by O’Connor and Stagnitti (2011) using the Learn to Play Program in specialist schools found that over a six-month period, children improved in their language skills compared to children participating in traditional classroom learning. This finding demonstrates that across a similar period, children showed the same shifts in language by participating in the Learn to Play Program. This has implications for the results of the GEE which showed elaborate play at baseline was found to be a significant predictor of expressive language at follow up, independent of age. This suggests through the development of pretend play and participation in the Learn to Play Program, children significantly improved their expressive language ability. This has implications for future research based on the link between pretend play and language development for children with developmental delay and/or disability.

**Joint attention and expressive language.**

The task of recalling sentences involves the child listening to a sentence and repeating it without changing the sentence or meaning of the words (Semel, 2003). This involves cognitive capacity (understanding instructions), receptive and expressive language skills as
well as the ability to understand instructions and relay information back to the researcher, hence a close relationship with cognition and joint attention. As discussed previously, joint attention refers to the ability to maintain a connection between themselves, another person and an object or experience (Charman, 1997), in this case the task of recalling a sentence to the researcher. A number of researchers support the link between joint attention and language development (Murray, 2008). Research suggests that joint attention is closely related to pretend play, language and social cognitive processes (Charman et al., 2003; Delinicolas & Young, 2007; Hobson, Hobson, Cheung, & Calo, 2015; Murray et al., 2008). In a study by Hobson, Hobson, Cheung and Calo (2015) they found that children with Autism Spectrum Disorder who were able to spend longer in joint attention, showed higher levels of symbolic play skills than those with limited joint attention. The study measured four groups of children, those with Developmental Disabilities, Autism Spectrum disorders, Social Communication Disorders and typically developing children. Outcomes revealed that most symbolic play occurred when children were engaged in joint attention with an adult as the co-player (Hobson et al, 2015). Guidelines for the Learn to Play Program within this study included ‘staff are to be co-players with children’. This is an important component of the Learn to Play Program in order for staff to scaffold a child’s play skills. Therefore, in reference to Hobson et al., 2015 findings, the engagement of staff as co-players with children in the Learn to Play Program can improve a child’s elaborate play and joint attention. Joint attention is linked with play very early in typical development, with social engagement and joint attention with parents being a crucial element in advancing a child’s pretend play (Campbell, 2018). In the Learn to Play program this is referred to as focussed attention. Children who have a social partner (whether a sibling or parent) are more likely to have more advanced pretend play according to Campbell et al. (2018). The Learn to Play Program
encouraged the development of joint attention, through engagement with toys and play materials in a social context.

Children were required to engage in pretend play whilst at the same time maintaining a connection with their co-player (adult or child), hence this can be linked to the changes in joint attention and expressive language.

**Narrative Skills: Changes and the Impact of the Learn to Play Program**

The Learn to Play Program was found to have a high positive impact on the narrative skills of children participating in this study (assessed through the ERRNI MLU and ERRNI ideas scores). As mentioned previously, the ERRNI MLU assesses the amount of words a child reproduces in a story including the grammatical complexity (Bishop, 2004). The forgetting scores are an indication of how much a child has forgotten from the story over the 10-30 minute delay in recall (Bishop, 2004). The forgetting score in this study demonstrates that the Learn to Play Program had a medium impact on a child forgetting the story over the 10-30-minute time delay. This means, that a child’s forgetfulness decreased through participating in the Learn to Play Program (Refer to Appendix M for the difference between baseline and follow up scores). Bishop (2004) highlights that the forgetting score is not relevant for children who have low initial story telling scores or who are below the age of 6 years old. As all of the children participating in this study had low initial story telling scores due to their developmental delay or disability, and many of the children were below the age of 6, therefore the forgetting score is not relevant for consideration based on Bishop’s findings. However, in saying that the Learn to Play Program did have a positive, medium impact on a child’s forgetting scores showing an improvement for children with developmental delay and disability.

Although changes were not significant in children’s MLU scores from baseline to follow up on the ERRNI assessment, the Learn to Play Program was found to have a high
positive impact on the changes in the MLU scores, which are representative of narrative skills. As well as this high impact of the Learn to Play Program, elaborate play (as measured by the PEPA) and object substitutions (as measured by NOS) at baseline was found to significantly predict narrative skills (measured on the ERRNI MLU) at follow up. These findings demonstrate that through participating in the Learn to Play Program within their school settings, developing their elaborate play skills and ability to substitute objects, in turn, developing their narrative competences. One of the key skills of Learn to Play was ‘joining children in role play’. This skill meant that all staff who were co-playing with children were also scaffolding and supporting children through different role plays (e.g. a shopkeeper, fairy, postman). This allowed staff to model play ideas to children, providing them with more ideas that they can add to their stories. Through repetition of play ideas and joint attention with a child, staff are able to scaffold play and add more complexity to a child’s story, when engaged in a Learn to Play session. Object substitution is also a key skill in the Learn to Play Program and one that significantly improved in children in relation to conventional play. Staff facilitating object substitution would model a substitution (e.g. using a box to represent a bed). Like with role play, when children were engaged in joint attention with a staff member, they were provided the opportunity to learn the skill. This means that children participating in this study were exposed to a range of role play narratives and object substitutions, which in turn led to the development of their own narrative skills, which includes being able to use an object to represent something else and verbalise this. When children developed their pretend play, they were able to add more complex story lines and start to build their object substitution. This is seen through the GEE results and the predictive nature of pretend play on narrative development.

Within the literature, narrative skills and pretend play are closely related and develop in parallel with one another in early typical childhood development (Stagnitti, 2016). Like
other developmental domains, pretend play and narrative for children with developmental delay and disability are under studied. By five to six years of age, typically developing children can form stories using a sequential format with characters, problems and symbols (Stagnitti 2016). Literature supports the strong connection between pretend play and narrative development. In a study by Sook-Yi (1999) pretend play and narrative structure was examined in children aged 4-5 years old. Results demonstrated that children in the pretend play group told more elaborate narratives than children in the story telling group (Sook-Yi, 1999). In a more recent study by Stagnitti and Lewis (2015), investigations of 4-5-year-old children’s pretend play were predictive of their semantic organisation and narrative re-tell skills four years later, when children were aged 8 – 9 years. A child’s use of symbols in play (object substitution) was found to predict up to 20% of a child’s narrative re-tell abilities. Object substitution was found to be predictive of a child’s re-tell narrative language skills as assessed by the School Age Oral Language Assessment (Stagnitti & Lewis, 2015), hence supporting this current research in terms of the effect of the Learn to Play program on a child’s narrative skills.

Following the two year Learn to Play program with a child with Autism Spectrum Disorder, Stagnitti (2016) found that his narrative skills had developed to the point of writing stories with his mother, sequencing the actions logically and including problems and solutions. The child’s narrative also included a structure with a beginning, middle and end to the story (Stagnitti 2016). The Learn to Play Program within each school in this study encouraged children to develop their story telling skills, social skills (through shared play stations) and expressive language skills (through sharing and talking with peers). The findings of the current study show that the adaptation of the Learn to Play program impacted positively on children’s expressive language skills and their narrative skills. The more play ideas children developed, the better organised and sequenced their play became, the more
they were able to tell stories associated with roles, use object substitution, characters and play scenarios in each school setting.

Although children were participating in a number of school curriculum subjects and learning tasks during the seven-month period that the Learn to Play program was running, the Learn to Play Program was the one consistent program across all schools participating in this study. Schools had a slightly different curriculum running for the children in their first year of school, however each curriculum was based on the Victorian Curriculum, therefore students were supported in similar ways within a structured learning environment. The Learn to Play Program within the special/SDS School curriculum, was the only play-based program within each school that had a play-based approach to learning over the seven-month period. That is, children were encouraged to learn through play, develop language, social and cognitive skills. It is suggested that, based on the findings the Learn to Play program positively contributed to the changes in the children’s scores across the seven-month period. This finding reflects that of previous research, O’Connor and Stagnitti (2011) and Stagnitti et al. (2012) found a significant difference in a child’s play skills after participating in a Learn to Play Program within a Specialist School Setting over a six month period. The impact of the Learn to Play Program on narrative is a promising finding for future implementation of play-based programs in special and SDS school settings, to positively influence the language, social skills, play skills, narrative skills and academic competence of children with developmental delay and disability.
Academic Competence: Changes and the impact of the Learn to Play Program

Academic competence.

Participants in this study significantly developed in their academic competence skills from baseline to follow up. Elaborate play (measured by the PEPA) and number of object substitutions (measured by NOS) at baseline were strongly predictive of academic competence (measured through the SSIS) at follow up. The academic competence was evaluated on the SSIS through teacher ratings. Academic competence includes: math, reading, motivation, and general intellectual functions and are assessed on seven questions using a 5-point Likert scale (Gresham, 2008). The Learn to Play Program was based on the 10 key skills, as discussed in previous sections. The key skills 8, 9 and 10 include: Referring to absent objects and actions, adding problems in the play narrative and predicting what will happen next. These key skills require a child to use their cognitive skills to imagine, think of ideas and make predictions. As staff were scaffolding these key skills, providing modelling and repetition in play (as outlined in the guidelines), children had the opportunity to develop their cognitive skills, through problem solving, making predictions within the play and using their imagination to add in absent objects and actions, which in turn led to the result of elaborate play and object substitutions predicting academic competence over the seven-month period.

As discussed in Chapter Two, there is a vast amount of research supporting the link between pretend play and learning in typical childhood development (Fung and Cheng, 2017; Nicolopoulou, 2010; Suchy, 2015; Thibodeau et al., 2016), however it is limited for children with developmental delay and disability. In order for children to develop the ability to solve problems and create solutions, they engage in play to act out ways of dealing with real life situations (Whitebread, 2009). For children with developmental delay or disability such as those in the current study, this is even more crucial as their development was delayed in the
skills to play and problem solving, which as demonstrated through the key skills of Learn to Play, is facilitated in this program. Nicolopoulou (2010) supported the need for play to be integrated into educational curriculums, not merely in the form of free play, but play that is intertwined with learning experiences supported by an adult. This supports the Learn to Play Program in that staff are co-players with children and must follow the 10 key skills to Learn to Play which allows for modelling and repetition of play to aid a child’s understanding.

In the current study, two schools adapted the Learn to Play program by adding a method called the “reporter” where they invited one child per play session to take photos of the group playing at each station and report back at the end of the play session (when all children had returned to the mat). The reporter took photos of the other children playing and any problems that they saw in the play. The teachers would then ask the children questions about the photos they took during the play session and would encourage other children to ask questions about the photos. This is a cognitive process which involves the children recalling their experiences and coming up with answers to questions, particularly linking with the general cognitive function of the academic competence scale. Narrative competence and language development are closely related to cognition (Stagnitti, 2010) as demonstrated through the results in the current study.

Whitebread (2009) explored the metacognitive and self-regulatory development associated with pretend play, due to the important role in the development of academic competence such as problem solving, creativity and learning through three studies (one observational and two experimental). A play-based learning group was compared to a traditional teaching group in 3-5-year-old children. Children who participated in the play-based learning group showed more resolutions to problems and their stories were of higher quality than those in the control group (Whitebread, 2009). Children in the play-based group were more confident in their oral storytelling skills than children in the traditional teaching
group (Whitebread, 2009). This again, links with cognitive, narrative and language development changes seen in this current study and the fact that these opportunities are provided through the Learn to Play Program and the 10 key skills.

**Emotional Development: Assessed through the SDQ**

The Strengths and Difficulties Questionnaire (SDQ) was completed by teachers of children participating in this study, at baseline and again at follow up. When analysing the results there was no significant difference in the SDQ categories including: emotional problems, conduct/behaviour, hyperactivity, peer problems, prosocial behaviours or the total difficulties score. Although no results were found to be significant, when looking at the changes in raw scores children improved in their prosocial behaviour and displayed less hyperactivity. Factors influencing the non-significant result could be the fact that changes in children with developmental delay and disability are challenging to shift across a short time frame. These findings could also be attributed to the fact that follow up assessments were completed in the last month of the school year. All children involved in this study were completing their first year of primary school, therefore due to the demands on their development and learning throughout the year they may have been tired by the last month when the follow up assessments were completed. This may have meant that their self-regulation of emotions was challenging to achieve, due to these high demands within the first year of school. The differences in the findings between the SSIS hyperactivity/inattention score increasing from baseline to follow up (significant) and the SDQ hyperactivity score (non-significant) decreasing from baseline to follow up could be due to the fact that the two instruments measure slightly different aspects of hyperactivity. The SISS includes factors associated with inattention which be a contributing factor to the difference between the findings.
Gender Differences in Elaborate Play

Girls had significantly higher PEPA combined scores at follow up, when compared to boys in this study. There was no significant difference between girls and boys scores at baseline. This result reflects the majority of literature which supports girls in having more developed pretend play skills when compared to boys (Gleason, 2005; Li, Hestenes, & Wang, 2016; Lindsey & Colwell, 2013). Brėdikytė, Brandišauskienė and Sujetaitė-Volungevičienė (2015) studied the differences in pretend play among typically developing boys and girls in a kindergarten setting. Questionnaires for teachers were used with the following pretend play domains to analyse children’s play: play actions, objects used in play, social play, play space, narrative and play themes. Results showed that girls showed stronger pretend play actions and social play than boys (Brėdikytė et al., 2015).

When analysing the differences in pretend play, it is important to consider the style, content and the material preferences which differ between boys and girls (Jones & Glenn, 1991). Studies have shown that boys are inclined to use real life objects in play whereas girls prefer to use ideational methods (fantasy) play (Matthews, 1977). Jones and Glenn (1991) investigated the differences between boys and girls in a kindergarten setting (22 children aged 4 years) through observation during free play. All children were exposed to the same play materials which included home corner (shops, bed, pretend kitchen), dress ups, dolls and soft toys. Other materials were available such as colouring in, puzzles and blocks. They investigated two types of pretend play, role play and object substitution. Results showed that girls participated in more role play than boys, and boys participated in more object substitution than girls (Jones & Glenn, 1991). This reflects the findings of Matthews (1977) in relation to girl’s participation in more fantasy roles than boys. In contrast to these findings, Li et al. (2016) investigated the pretend play of boys and girls in an outdoor childcare environment, and found no significant differences in pretend play between boys and girls. As
the outdoor environment was a factor in Li et al.’s study, this may have led to the observed
play (e.g. the use of animals masks, capes and wings) being of more interest to boys to
participate in more fantasy play (Li et al., 2016).

Overall the findings in this study reflect those of the majority of literature in that girls
engage in more elaborate pretend play than boys.

**Strengths and Limitations of the Study**

The strengths of this study include the variation between schools allowed a range of
geographical regions therefore results could be generalised to a wider population. Another
strength of this study was that the researcher completed the play and language assessments,
limiting the potential bias of a teacher knowing the child. However, this could have been a
potential bias for the social skills and emotional regulation assessments, pre and post. This
bias was limited as teachers were not provided with the assessment forms that they completed
at baseline (therefore they could not refer to these during follow up). The range of
assessments conducted with children in Study Two was a strength as it allowed the researcher
to gain information on a range of developmental areas including play, language, social skills,
narrative, academic competence and emotional regulation. The variation in the way schools
implemented the Learn to Play Program allowed for the analysis of a variety of
implementation strategies. These strategies informed the recommendations for the future use
of the Learn to Play Program within specialist schools.

There was no control group in this study and it is a limitation of this research. This
meant that not possible to determine whether the changes in child development and learning
could be attributed solely to the Learn to Play Program or to other factors within the school
program. To account for this limitation, the design of the research study triangulated several
sources of data across more than one site. Also, due to the nature of a program evaluation it
was important to focus on the qualitative differences between schools and evaluate all aspects of the Learn to Play Program.

A potential limitation of this study was experimental bias, as the researcher was conducting the play assessments at baseline for Study Two. In order to reduce experimental bias from occurring, the principal supervisor conducted the play assessments at follow up. This potential bias was minimised through the use of coding children’s names. The researcher’s supervisor had no prior knowledge of the assessment results or identifying information. The researcher’s supervisor had not seen the baseline scores on the assessment measures. As classroom teachers were completing both the baseline and follow up SSIS and SDQ assessments, there was a potential for bias. The researcher minimised this potential by not providing the teachers with a copy of the baseline assessment results until after they had completed the follow up assessments with the children involved in this study. The length of time between the teacher’s assessments was more than seven months.

It is possible that the time of day that the children were seen may have enhanced or limited their performance on assessments. For example, some children were assessed during class, before or after recess and lunch or during recess and lunch, therefore the activities in which they were previously involved in before the assessments may have impacted on their level of attention and concentration during the assessments. Furthermore, to try and reduce the impact of fatigue, no assessments were completed after 2:30 in the afternoon. In order to provide consistency of the assessment situation and to limit confounding variables such as the alertness of the child, assessment at baseline and follow-up were completed at a similar time. The fidelity of this research was maintained by the researcher checking in with schools throughout the implementation to ensure that they were using the 10 key skills to Learn to Play and following the guidelines set out by the researcher.
Conclusion

This chapter has explored the findings in relation to: 1. Changes in development across a seven-month period in which children participated in a Learn to Play Program, 2. the impact of the Learn to Play Program on developmental components including play, language, social skills, emotional regulation, and academic competence and lastly, the prediction of pretend play on narrative, social skills, language and academic competence. Firstly, the changes in child development over the course of the Learn to Play Program included significant improvements in elaborate play, object substitutions (conventional), language, social skills and academic competence. These findings supported the results found in the GEE in that pretend play was found to predict language, social skills, academic competence and narrative development. Therefore, it is reasonable to suggest that the experiences and skills that children learnt through participating in the Learn to Play Program significantly impacted on a child’s development in these areas. The Learn to Play Program influenced changes in a child’s narrative skills (as measured by Cohen’s $d$). The findings of this study have ramifications not only for future research but for the implementation of Learn to Play Programs to support children with developmental delay and disability in special/SDS school settings. This chapter concludes stage two of Moscoso et al. (2013) program evaluation process.

Chapter Seven will present Study Three of this research which enters stage three of a program evaluation (evaluation of the outcomes).
CHAPTER SEVEN

STUDY THREE

The previous chapters outlined the first two studies in this research. Study One explored the perceptions of school staff in relation to pretend play and its role in childhood development, as well as play-based programs within special/SDS school settings. The findings from Study One showed a need for further evaluation of the Learn to Play program as it was being adapted for use in special/SDS school settings. This led to Study Two where the aim was to investigate the outcomes for children when they had been involved in the Learn to Play Program for seven months. Study One and Study Two equated to the first two stages of Moscoso et al.’s (2013) program evaluation of establishing needs at the beginning of an evaluation and what occurred during the program. This chapter presents Study Three (post program), which involved evaluating the qualitative outcomes of the Learn to Play program (Moscoso et al., 2013), an important component in contributing to the qualitative evidence of a program evaluation (Owen & Rogers, 1999). This study also re-evaluated staff perspectives of their view on the importance of pretend play in learning and development, post participation in a Learn to Play Program to ascertain if the perspectives of staff had shifted (either positively or negatively) towards the importance of play in specialist schools, adding to the program evaluation. From the interviews and questionnaires in Study One, it was evident that staff were not confident in being co-players with children, that is, being able to support a child’s play through modelling the play with them. This was therefore re-evaluated in Study Three, in order to see if experience in a Learn to Play Program had shifted their confidence levels.

This chapter will firstly discuss the research questions and aims of this study followed by the methods including participants, instruments, the procedure and the data analysis
process. Finally, this chapter will present the results of Study Three followed by the conclusion. The research questions and aims are discussed below.

**Research questions**

1) What were the experiences of school staff in implementing the Learn to Play Program within their school settings;

2) Do school staff value pretend play in a child’s development and learning within a special/SDS setting, post implementation of a Learn to Play Program;

3) Were school staff confident in implementing and running a Learn to Play Program within their school setting.

**Aims**

1) To explore the impacts of the Learn to Play program and its implementation in special/SDS schools, post program implementation.

2) To explore any changes in the views of school staff on the importance of play in enhancing the development and learning of children with developmental delay and disability within special/SDS schools, post program implementation;

3) To explore the confidence of school staff in implementing a Learn to Play Program within their school settings.

**Research Design**

Due to the nature of a program evaluation, both quantitative and qualitative methods are beneficial (Owen & Rogers, 1999) in order to cover a wide scope of information, thoughts, feelings and outcomes. Questionnaires were used along with focus groups to gain a deeper understanding of the school staff experiences in the Learn to Play Program. For the qualitative methods, a phenomenology approach was used. Similar to Study One the phenomenon is the experience of staff in relation to play-based programs within special/SDS
school settings. Phenomenology is therefore relevant to this study in order to gain insight and explore the participants views in relation to pretend play and childhood development. The semi-structured focus groups were also chosen for Study Three so that the researcher could explore the experiences of participants in the Learn to Play Program, their feelings about participation in the program and how comfortable they were in being co-players with children.

**Participants**

The four schools who participated in Study Two, were invited to participate in Study Three by the researcher. All four schools consented to participating in Study Three and had previously implemented a Learn to Play Program within their schools in Study Two. The sample consisted of 14 staff members employed across four Special/SDS schools across Victoria, Australia. The 14 staff members included six teachers, one assistant principal, two speech pathologists, one occupational therapist and four integration aide staff members. The sample size was lower than that in Study One (31 staff members) because seven schools participated in Study One, compared to only four schools in Study Three. The sample size also differed from Study Two (seven teachers) because only teachers were involved in completing the SSIS and SDQ assessments in Study Two.

**Inclusion criteria.**

The inclusion criteria included staff who were involved with the prep students (first year of schooling) and who participated in a Learn to Play Program in Study Two. Teachers of prep students were included in this study as they had now spent most of the year teaching them, were often running the Learn to Play programs and could comment on any generalisation of skills outside of the play room. Therapists (including speech pathologists and an occupational therapist) were included in this study as they were often involved in assisting with the play programs as well as working with the children individually outside the
classroom and could comment on any generalisations of skills outside of the play room. The therapists were also trained in supporting child development, therefore their opinions of the value of play in learning and development was crucial. Integration aides were included in this study as they were often involved in running the play programs alongside teachers and therapists. Integration aides also spend a lot of time supporting children’s needs and development in the classroom setting, therefore their views were important. An assistant principal was included in this study as she had an active role in imbedding the play program within the curriculum.

**Exclusion criteria.**

Staff members who were not involved with the Learn to Play Program (that is, they were not specifically involved in running the program with the students) or who were not a classroom teacher of the students participating in Study Two.

**Instruments**

A questionnaire of 18 questions and a semi-structured focus group were the instruments used to collect data in Study Three. Strategic plans from the schools’ public websites were accessed online by the researcher following the completion of the staff interviews for Study Three. The Strategic plans were accessed so that the researcher could explore the values, purpose and mission statements for each of the schools.

**Questionnaire.**

As per Study One, there was no existing questionnaire that would match the aims of this study, therefore this questionnaire was developed in line with the principles from Fink and Kosecoff (1985) on survey design. The principles followed: writing questions in English, making questions as specific as possible to ensure that the participant could answer the question, making sure the questions were meaningful to the participant, avoiding bias through the choice of appropriate words and phrases and finally and having the questions
reviewed for any bias which was conducted by the principal supervisor (Fink & Kosecoff, 1985).

The questionnaire included four multiple choice questions, seven open ended questions and seven questions using a seven-point Likert Scale (1 being the lowest and 10 being the highest rating). Appendix P outlines the questions included in the questionnaire. The open-ended questions asked participants to comment on their comfort levels in being a co-player with children, their experience of parent views on Learn to Play, linking play goals with learning goals, any barriers experienced by schools, any unexpected changes in children’s development that exceeded maturation over the year, any resources that the participant felt would be necessary for the program to continue to run and any further comments.

For the Likert scale questions, the participant rated their view on the importance of play in relation to a developmental component, similar to Study One. The developmental components included: overall development, language, social interaction, cognitive development and learning. The three remaining Likert questions included the value of play for children with a disability or developmental delay and the value of play in a special or SDS school setting, as well as the importance of play for children with developmental delay/disability and play within the school environment. The multiple-choice questions included the structure (duration and frequency) of play sessions per week, whether they used a designated play space (e.g. a spare classroom or a playroom), the challenge of matching the play activities for the developmental level of children, and comfort levels in assessing a child’s play skills. The questionnaires were developed by the researcher based on the aims of the research and the results from Study One and Two. The questionnaire took approximately 30 minutes to complete (see Appendix P for a copy of the questionnaire).
Focus group.

The participants also partook in a semi-structured focus group conducted by the researcher in a designated room within their school setting, as per Study One. The focus groups took approximately 30 minutes for each group. The focus groups were conducted at a time that suited each school, usually once the school day had finished. Due to the time constraints of school staff, focus groups were chosen over individual interviews, as per Study One (see Appendix Q for a copy of the nine questions on the semi-structured focus group running sheet). Two examples of the semi-structured focus group questions included:

1. Tell me about the play program you have been running over the past year with the prep students.

2. Tell me about your experiences in targeting the play so that it works for a range of developmental levels.

Strategic plans.

The researcher sourced each school’s strategic plan from the schools’ public websites. Metro One did not have a strategic plan accessible to the public. Metro Two, Regional One and Regional Two’s strategic plans were easily accessible on each website.

Procedure

Ethical approval.

Approval for this study was sought and obtained through the Deakin University Human Research Ethics Committee (DU-HREC) (see Appendix F) and the Department of Education and Training (see Appendix G) prior to the commencement of Study Two.
Recruitment.

Once ethical approval was confirmed from Deakin University and the DEECD potential participants were recruited through purposive sampling. The participants were invited into the study by the researcher contacting the key contact at each school (the staff member communicating with the researcher in Study One and Study Two). Teachers, therapists and integration aides who worked in a special or SDS were approached to participate in this study by the key contact at each school. The researcher then provided the Plain Language Statements (PLS) and consent forms (Appendix H) to the key contact at each school to distribute to the staff members involved in the Learn to Play Program conducted in Study Two and the management staff (including principals and assistant principals in each school). All 14 participants gave their consent through the return of written consent forms to the key contact at each school, which were then passed onto the researcher.

Data collection.

Before the commencement of Study Three, the researcher developed the questionnaire based on the aims of the study and in conjunction with the findings from Study One and Two. After consent forms were received, the researcher asked schools to identify a suitable time for a focus group with participants. The focus groups occurred after school when staff had finished teaching. The key contact for the researcher at the schools organised a space within the school for data collection. The focus groups were completed in a quiet location, away from noise and distraction so that confidentiality could be maintained and clear audio recordings made. Each focus group was audio-recorded. The researcher informed all participants that privacy and confidentiality would be assured as codes would be used instead of participant names. The questionnaire was sent to the key contact at each school to distribute to staff two weeks prior to the focus groups. The staff members were asked by the key contact to bring the questionnaire along to the focus groups. Staff were informed that
they could complete the questionnaire prior to the focus group (in their own time) if they wished, however the researcher would allow 30 minutes to complete the questionnaire prior to the focus group starting. Once the 30 minutes was finished, the focus group commenced, lasting up to 30 minutes. All audio files were then transferred to a secured network file. The researcher made field notes after visiting each school for the focus group. The field notes included the impressions and feelings of the researcher and observations noted of the interactions within the focus groups. Field notes were recorded in a journal, which was later used in the analysis for triangulation. Member checking was conducted by sending summaries of the findings of each focus group to the appropriate school. School staff could comment, change or delete any of the summary findings if they did not agree with the summary. No participants asked for changes, therefore the summary findings that the researcher presented remained.

**Data analysis.**

Study Three was a mixed methods study that included a questionnaire and focus group. Quantitative data from the questionnaires were analysed using descriptive statistics (mean, standard deviation and mode) calculated through SPSS version 22.

Similar to Study One, Study Three used thematic analysis. The thematic analysis was conducted on the open-ended questions from questionnaires at an individual level, and the focus group data (transcripts) on a group level to determine the major themes in order to convey the qualitative narrative of the findings (Creswell, 2009). The researcher used mind maps, comparison tables and visual displays of categories to make connections and identify themes. To ensure that the researcher’s analysis was inductive to the emerging data, the researcher would often review the findings and analyse the themes again, to see if any new findings had emerged from the data. Peer checking occurred between the researcher and the principal supervisor to ensure confirmability of the data analysis. All of the transcripts were
read and responses were then categorised. As the researcher looked deeper into the findings, categories continued to emerge and be refined and similarities and differences emerged from the data.

Along with the thematic data analysis, the Gervais Framework was also used in the data analysis process. Once themes were identified, the data were then analysed in relation to the Structural, Operational, Strategic, Specific and Systemic dimensions as well as the Needs and Constraints of the program of the Gervais Framework. The results of the Gervais Framework will be presented in the following chapter, Chapter Eight.

Results

Quantitative Data

Table 7.1 presents the descriptive statistics for the participant responses for questions one to seven on the questionnaires. These questions focused on the participants’ views on the importance of play in childhood development, importance of play for children with developmental delay and disability, the impact of pretend play on language, social, cognition and learning in the school environment. All participants valued play in childhood development and recorded a rating above nine for the importance of pretend play for children with developmental delay and disability (see Table 7.1). The importance of play and its relationship with language, social skills and cognition was also highly rated.
Table 7.1

*The Importance of Play in Childhood Development and Learning (n = 14)*

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>Importance of play in childhood development</th>
<th>Importance of play for children with development delay/disability</th>
<th>Importance of play in language development</th>
<th>Importance of play in social development</th>
<th>Importance of play in cognitive development</th>
<th>Importance of play in relation to learning in the school environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>0.49</td>
<td>0.83</td>
<td>0.74</td>
<td>0.49</td>
<td>0.74</td>
<td>0.98</td>
</tr>
</tbody>
</table>

Note. Std. Deviation = Standard Deviation; Likert scale rating: 10 = Highest rating of the importance of play in development; 1 = lowest rating of the importance of play in development.

Tables 7.2, 7.3, 7.4, 7.5 and 7.6 present the results in relation to each school participating in the study, in the areas of: the importance of play in childhood development, importance of play for children with developmental delay and disability, the impact of pretend play on language, social, cognition and learning in the school environment. Metro Two had the highest ratings in all six categories, followed by Regional One and Regional Two. From field notes collected throughout, it was interesting to note that these three schools are the schools who had been running the Learn to Play Program within their school curriculum prior to this research.
Table 7.2  
*The Importance of Play in Childhood Development: Individual School Results*

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>4</td>
<td>9.75</td>
<td>.50</td>
</tr>
<tr>
<td>Metro One</td>
<td>3</td>
<td>9.33</td>
<td>.57</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5</td>
<td>9.80</td>
<td>.45</td>
</tr>
<tr>
<td>Metro Two</td>
<td>2</td>
<td>10.00</td>
<td>.00</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>9.72</td>
<td>0.28</td>
</tr>
</tbody>
</table>

*Note. N = Number of participants; Std. Deviation = Standard Deviation; Likert scale rating: 10 = Highest rating; 1 = lowest rating.*

Table 7.3  
*The Importance of Play for Children with Developmental Delay and Disability: Individual School Results*

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>4</td>
<td>9.75</td>
<td>.50</td>
</tr>
<tr>
<td>Metro One</td>
<td>3</td>
<td>9.33</td>
<td>.57</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5</td>
<td>9.40</td>
<td>1.34</td>
</tr>
<tr>
<td>Metro Two</td>
<td>2</td>
<td>10.00</td>
<td>.00</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>9.62</td>
<td>.48</td>
</tr>
</tbody>
</table>

*Note. N = Number of participants; Std. Deviation = Standard Deviation; Likert scale rating: 10 = Highest rating; 1 = lowest rating.*
Table 7.4

*The Importance of Pretend Play in Language Development*

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>4</td>
<td>9.75</td>
<td>.50</td>
</tr>
<tr>
<td>Metro One</td>
<td>3</td>
<td>9.33</td>
<td>.577</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5</td>
<td>9.20</td>
<td>1.09</td>
</tr>
<tr>
<td>Metro Two</td>
<td>2</td>
<td>10.00</td>
<td>.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>9.57</td>
<td>.38</td>
</tr>
</tbody>
</table>

*Note.* N = Number of participants; Std. Deviation = Standard Deviation; Likert scale rating: 10 = Highest rating; 1 = lowest rating.

Table 7.5

*The Importance of Pretend Play in Social Skill Development*

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>4</td>
<td>9.75</td>
<td>.50</td>
</tr>
<tr>
<td>Metro One</td>
<td>3</td>
<td>9.33</td>
<td>.56</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5</td>
<td>9.80</td>
<td>.45</td>
</tr>
<tr>
<td>Metro Two</td>
<td>2</td>
<td>10.00</td>
<td>.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>9.72</td>
<td>.22</td>
</tr>
</tbody>
</table>

*Note.* N = Number of participants; Std. Deviation = Standard Deviation; Likert scale rating: 10 = Highest rating; 1 = lowest rating.
Table 7.6

The Importance of Pretend Play in Cognitive Development

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>4</td>
<td>9.75</td>
<td>.50</td>
</tr>
<tr>
<td>Metro One</td>
<td>3</td>
<td>9.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5</td>
<td>9.60</td>
<td>.89</td>
</tr>
<tr>
<td>Metro Two</td>
<td>2</td>
<td>10.00</td>
<td>.00</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>9.58</td>
<td>.39</td>
</tr>
</tbody>
</table>

*Note. N = Number of participants; Std. Deviation = Standard Deviation; Likert scale rating: 10 = Highest rating; 1 = lowest rating.*

Table 7.7

The Importance of Pretend Play in Relation to Learning in the School Environment

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>4</td>
<td>9.75</td>
<td>.50</td>
</tr>
<tr>
<td>Metro One</td>
<td>3</td>
<td>9.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5</td>
<td>9.00</td>
<td>1.41</td>
</tr>
<tr>
<td>Metro Two</td>
<td>2</td>
<td>10.00</td>
<td>.00</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>9.43</td>
<td>.53</td>
</tr>
</tbody>
</table>

*Note. N = Number of participants; Std. Deviation = Standard Deviation; Likert scale rating: 10 = Highest rating; 1 = lowest rating.*

Table 7.8 highlights the value staff placed on play programs for each school setting. Among the schools, Metro Two had the highest rating of the value of a play-based program in a Special/SDS school setting.
Table 7.8

The Value of a Play-Based Program in a Special/SDS School Setting

<table>
<thead>
<tr>
<th>School</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>9.75</td>
<td>4</td>
<td>.50</td>
</tr>
<tr>
<td>Metro One</td>
<td>9.33</td>
<td>3</td>
<td>.58</td>
</tr>
<tr>
<td>Regional Two</td>
<td>9.00</td>
<td>5</td>
<td>1.00</td>
</tr>
<tr>
<td>Metro Two</td>
<td>10.00</td>
<td>2</td>
<td>.00</td>
</tr>
<tr>
<td>Total</td>
<td>9.52</td>
<td>14</td>
<td>.35</td>
</tr>
</tbody>
</table>

Note. N = Number of participants; Std. Deviation = Standard Deviation; Likert scale rating: 10 = Highest rating; 1 = lowest rating.

Table 7.9, 7.10, 7.11, 7.12, and 7.13 present the results from the multiple-choice questions. The multiple-choice questions offered a choice of answers from a selection of 3-5 options, depending on the specific question. For example, some multiple-choice questions included the following options a) yes b) no c) somewhat; while others included a) really well b) okay c) not very well d) not sure. This allowed the researcher to create multiple choices relevant to the question being asked.

Table 7.9 presents the capacity of each school to implement the Learn to Play Program in relation to the duration and the number of play sessions they conducted per week. Overall, schools ran the Learn to Play program for 45 minutes – 1 hour sessions once a week. Interestingly, Metro Two (who had the highest ratings of the importance of play in childhood development and the value of play in a special/SDS school setting) was the only school who ran the Learn to Play Program for two one-hour sessions per week.
Table 7.9  

The Duration and the Number of Play Sessions Per Week to Implement a Learn to Play Program

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Duration and number of sessions per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>4</td>
<td>Other</td>
</tr>
<tr>
<td>Metro One</td>
<td>3</td>
<td>45 minutes-1 hour sessions once a week</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5</td>
<td>45 minutes-1 hour sessions once a week</td>
</tr>
<tr>
<td>Metro Two</td>
<td>2</td>
<td>45 minutes-1 hour sessions twice a week</td>
</tr>
</tbody>
</table>

Note: N = Number of participants. Other = less than 45 minutes.

The setting in which the play program was conducted (classroom, designated play space or both settings) is presented in Table 7.10. The majority of play sessions were run in a designated play space.

Table 7.10

The Setting in Which the Play Sessions Were Run

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Setting for play sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>4</td>
<td>Designated play space</td>
</tr>
<tr>
<td>Metro One</td>
<td>3</td>
<td>Designated play space</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5</td>
<td>Classroom</td>
</tr>
<tr>
<td>Metro Two</td>
<td>2</td>
<td>Designated play space</td>
</tr>
<tr>
<td>Mode response across the schools</td>
<td>14</td>
<td>Designated play space</td>
</tr>
</tbody>
</table>

Note. N = Number of participants; Std. Deviation = Standard Deviation; Mode= the Majority.

The challenges of participants in matching play activities to the developmental level of children is presented in Table 7.11 Metro One and Metro Two found it most challenging in
matching play activities to the developmental level of children. Overall staff felt challenged in matching play activities at the right level for the children.

Table 7.11

*The Challenges for Participants in Matching Play Activities to the Developmental Level of Children*

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>The level of challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>4</td>
<td>Somewhere in between</td>
</tr>
<tr>
<td>Metro One</td>
<td>3</td>
<td>Challenging</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5</td>
<td>Somewhere in between</td>
</tr>
<tr>
<td>Metro Two</td>
<td>2</td>
<td>Challenging</td>
</tr>
</tbody>
</table>

*Note.* N = Number of participants; Std. Deviation = Standard Deviation.

Table 7.12 highlights how comfortable participants were in assessing a child’s current pretend play skills. Participants were asked to evaluate how comfortable they were in assessing child’s current pretend play skills. The majority (when considering the number of participants) indicated that overall, staff did not feel comfortable in assessing children’s pretend play skills.

Table 7.12

*Comfortability of Participants in Assessing a Child’s Current Pretend Play Skills*

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Comfort level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>4</td>
<td>No</td>
</tr>
<tr>
<td>Metro One</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5</td>
<td>No</td>
</tr>
<tr>
<td>Metro Two</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>No</td>
</tr>
</tbody>
</table>

*Note.* N = Number of participants; Std. Deviation = Standard Deviation; 1= Yes; 2=No; 3= Somewhere in between.
Finally, participants were asked how the Learn to Play Program was received by parents, that is, whether parents had asked any questions about the program, made any positive or negative comments or engaged in discussions with the staff about the play program. Table 7.13 highlights individual school responses, demonstrating that three out of four schools stated that the Learn to Play Program was very well received by parents. Regional Two was the only school which said they were unsure how well the program was received by parents.

Table 7.13

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Reception by parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional One</td>
<td>4</td>
<td>Really well</td>
</tr>
<tr>
<td>Metro One</td>
<td>3</td>
<td>Really well</td>
</tr>
<tr>
<td>Regional Two</td>
<td>5</td>
<td>Not sure</td>
</tr>
<tr>
<td>Metro Two</td>
<td>2</td>
<td>Really well</td>
</tr>
</tbody>
</table>

Note. N = Number of participants; Std. Deviation = Standard Deviation; 1 = Really well; 2 = Okay; 3 = Not very well; 4 = Not sure.

Along with the rating scales and multiple-choice questions, the questionnaires also included open ended questions (see Table 7.14). The open question responses of participants were included in the analysis with the data from the focus groups.
Table 7.14

*Open Ended Questions on the Participant Questionnaires*

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>Overall, do you feel comfortable being a co-player with children? (i.e. playing alongside the child, modelling the play actions and engaging in role play)</td>
</tr>
<tr>
<td>14.</td>
<td>Were your play goals linked with the learning goals of each child? And if so, was this a challenging or an easy link?</td>
</tr>
<tr>
<td>15.</td>
<td>Were there any barriers to the school’s play program this year? If so please explain the barriers.</td>
</tr>
<tr>
<td>16.</td>
<td>Did you see any changes in the children’s skills in relation to their play, social skills, language or behaviour through participating in the school’s Learn to Play Program? If so, what were they?</td>
</tr>
<tr>
<td>17.</td>
<td>Please list any resources you feel as though your school needs to be able to run the program successfully (if any)?</td>
</tr>
<tr>
<td>18.</td>
<td>Any further comments.</td>
</tr>
</tbody>
</table>

**Qualitative Data**

For the qualitative methods a Thematic Analysis was used for this study. Five themes emerged from the focus group transcripts and the open questions from the questionnaires.

The five themes, along with the corresponding sub-themes were:

- Schools create successful programs;
  - Management support;
- Staff need to be motivated to play;
- Staff skills in linking learning goals;
- Learn to Play has created shifts in the children’s development;
- Assessing pretend play is really important;
- Structuring Learn to Play to allow for the challenge of play with children with developmental delay and disability;
- Parents must value play.

Each of these themes will now be discussed in detail.

Schools create successful programs.

Schools participating in the study highlighted that in order for the Learn to Play Program to be successfully integrated into a school’s curriculum, school management needs to be supportive in relation to a budget for the play program, timetabling play into the curriculum, and understanding about the importance of play for childhood development and learning. Staff need to be motivated to play with children and have the skills to implement a play program.

Management support.

This sub-theme that emerged from the data analysis was in relation to the ‘Policies and Management’ and the ‘Resources and Structure’ of the Model of a Dimensions of a Program (Gervais, 1998). More specifically, the support that staff received from their management team was in relation to budgets for resources, staff allocation, timetabling as
part of the curriculum, and how management felt about play within the curriculum. These themes are critical to determine the factors which contributed to a successful implementation of the Learn to Play Program in a special/SDS school and also the factors that may hinder a program.

Overall, most of the schools felt supported from their management teams in implementing a play program and the value of play with the curriculum. The strategic plans from the schools revealed that two out of four strategic plans listed play as a priority in their school (Metro One and Regional Two). Metro Two highlighted social programs within their strategic plan but Regional One had no mention of play or social programs. This will be further discussed in Chapter Eight. Support from management fell short when staff were not given time allowances of timetabling for specific Learn to Play sessions or time release from other duties to coordinate or be part of the Learn to Play Program. Therefore, although Learn to Play was supported by all school management teams, this was not always reflected in the school processes.

Metro One felt supported by their management system,

“We’ve got heaps of resources and a big budget. It’s okay if they [management] come in and we’re playing on the floor. The whole curriculum is really good”.

Metro One emphasised the importance of leadership within the school as explained below:
“Our leadership has already determined that it was important and have said it was important for a long period of time. I don’t think you could do it if you didn’t have leadership interested and involved. You’d feel like an idiot if you were playing and the principal walked past if they didn’t know anything”.

Metro Two had a similar level of support by management as Metro One, explaining that

“It’s one of our priorities as a school... When you’re trying to get a program like this off the ground, which is quite foreign to people, it can be a little bit scary, it’s really important to have leadership and everyone behind you”.

For Regional One, the biggest issue in running the Learn to Play Program was that staff were allocated to other programs within the school curriculum and the Learn to Play Program was not structured into the timetable. Therefore, they lacked staff to run the program. This highlights how support from management may exist but is not reflected through the school processes. With the increases in programs running at Regional One, an integration aide was left to run the play program on her own, taking pairs of children for 20 minutes or a group of three children for half an hour. “With the shift in programming this year... the kids have a lot on their plate”. ....“There is a whole lot of sessions running... [play] was involved for a bit, but now that’s shifted. The integration aide stated
“I just wing it… I followed on from what we were doing with the videos last year. We just go from one activity to the next. I only do two activities in that time now because I don’t have time to get to three”. Due to the limited support that this integration aide member had, the play program appeared to become a process and not an enjoyable play program for the staff member.

A teacher from Metro Two highlighted that a barrier to their successful implementation of the program was the support from other staff. Some staff did not understand what was involved in the Learn to Play Program, nor did they understand its link with the curriculum. This was challenging for this teacher when he was trying to gain support from management and the whole staff team.

Metro Two noted the difficulty in time for staff to run and maintain the Learn to Play Program within their current hours, “I know the school supports it, but trying to find more time in the week is very difficult”. Regional One were faced with issues when staff left the school. For example, “two of our best staff members who could operate everything [the play program] left”. Regional One explained the staff issues they faced, “It was just unfortunate that our two best staff members who could operate everything left… it was a bit of a juggle and trying to get the best out of a not-best situation and offering what we could”. They described the difficulty in new staff members stepping into the program, “it’s hard, you need training… especially to the level of what it is”.
Staff need to be motivated to play.

Just like management support, participants highlighted the need for staff to be motivated and invested in the Learn to Play Program, otherwise it could be challenging for staff who were involved in the play program. In order for staff to create a successful program, they needed to be able to step back and enjoy playing with children. They needed to be able to step out of reality and immerse themselves into play. Metro Two explained:

“You want the teacher to want to be there as well and want to enjoy the Learn to Play program with the kids… If your head’s not in it, then the kids can see it”.

“I am not saying that not everyone here wants to do it, but there have been some people who rather just not. It’s hard when you’re trying to run a program and there’s not that support there”. “It’s really hard for a lot of teachers to let go. Unless they have the right education and support in that area, that’s not going to happen. I think because of that it’s hard to get the whole primary team to embrace the program”.

Regional Two had good communication between staff and offered peer support to each other which assisted in staff being invested in the program.

“I think it [peer support] really helped the enthusiasm of the staff. It’s been fabulous… The educators here have been completely engaged… it was really awesome”.

In contrast to this response in the focus group, an individual response by an occupational therapist on the questionnaire from Regional Two stated that a barrier to the implementation of the Learn to Play Program was “some staff members lack of investment
into the Learn to Play Program compared to play based learning”, demonstrating his/her view that this made the program challenging. As well as leadership support, Metro One had staff invested in the play program, which made its implementation run smoothly, “the support and the encouragement [to use play] has been there for a while…. We structure lots of things around play, which is how we see what they’re [the children] are interested in as well”.

**Staff skills in linking learning goals.**

The motivation of teachers to participate in the Learn to Play Program closely links with the skills of staff. For staff who were able to link the Learn to Play Program goals with the school-based learning goals of the children, found it much easier to run the program and see its link with the curriculum as well as having an increased motivation to participate in Learn to Play.

For Regional One, the integration aide who ran the play program was not confident in linking the play program to children’s goals. When describing her experience, it sounded as though the program was more of a process than an integrated play program.

“I wasn’t sure if I was doing it right with the kids’ goals, but I just followed on from what we were doing with following the [play] videos. We just go from one activity to the next”.

Metro One and Metro Two were both able to link the Learn to Play goals with the overall learning goals of children, for example behaviour and social development, “Last year
or the year before they would have really specific things, like they need to do three action sequences. We were told not to put those in... and they [staff] would go, ‘Well if it’s not in there that’s all that gets targeted’”.

Regional One and Two highlighted the need for the Learn to Play Program to have a coordinator running the program (Regional Two) and set staff members working with the play program (Regional One) so that examples such as understanding the link between play goals with overall learning goals were understood by staff. Having a coordinator within the Learn to Play Program would mean that this one person is skilled in understanding play and how it links with children’s goals.

**Learn to Play has created shifts in the children’s development.**

All of the schools participating in the study saw changes in the children’s development through participating in the Learn to Play Program. This was supported in both the focus groups and the questionnaires. The importance of play and its relationship with language, social skills and cognition was highly rated in the questionnaires.

Metro One described the fact that the children had

“come so far and in so many different levels...play has been obviously a huge piece, especially in the prep year with just social interaction and exposure to lots of new things.... Imaginary play has just grown and their communication with different things. It’s really nice”.
Staff also described the greater awareness children now have for their peers, with more functional play and interaction.

Metro Two have also seen positive outcomes,

“They’re so much more imaginative now. Even in their drawings.... It’s amazing and it’s really great to seeing what they’ve learned in the play room and then transferring it to the classroom”.

“They’re talking a lot more and they’re interacting a lot more...with the opportunity in the play room for them to actually play together, I don’t think they would have interacted like that outside the classroom”.... “It’s extending their language. There’s literacy skills that are incorporated into it [the play program]. It’s really great to see them extend their interests and be a bit more open-minded, playing with other things”.

Regional One, although presented with challenges in the structure of their Learn to Play Program (staff were involved in other programs, therefore an integration aide was in charge of running the program by herself), still saw changes in the children’s development, including a shift in interpersonal skills, particularly problem solving as well as social skills such as sharing, turn-taking, listening, some children playing more appropriately. A teacher from Regional One stated that “I think the skills improved at a faster rate due to smaller groups”. They noted changes in one particular child
“he is now more likely to sit beside [his peers] and he’s trying to interact”.

“Language, communication and taking turns have all improved”.

Staff also stated that “all the kids have come a long way”. Generalisation from the play room to the classroom was also seen by Regional One (as seen by Metro Two), “He often does that [uses symbolic boxes and tins] in the classroom. He’ll have boxes of Duplo and brings in a mix... He was cooking today with the cardboard box as a frypan”.

Regional Two also saw positive shifts in the children’s development “their imagination skills just exploded”. Object substitution has improved “we had yellow blocks as cheese and he was turning it into other things, like chips”. Turn-taking and social interaction had improved and generalisation outside of the Learn to Play Program and school was also occurring “[child] was offering her friends her biscuits and I was amazed, because it was in real life”.

**Assessing pretend play is really important.**

Assessment is an important consideration in the implementation of the Learn to Play program. Two schools who were quite confident in running the Learn to Play Program and who both had previous experience in the Learn to Play program were thinking about measuring the outcomes of children. This demonstrates that these two schools were thinking about the broader considerations to a successful program. In order for their Learn to Play program to be sustainable over time as a key program within the curriculum, it would need to
be evaluated. This was considered within the focus groups around where they could enhance child development and how this could be measured.

Metro Two are a school who has been running Learn to Play prior to this study and were now thinking about how to measure outcomes of children,

“We’ve had a great beginning. I think where do we go next? How do we take children to the next level? Some of that is about assessment”.

“We see how wonderful this program is and we can see the benefits of it, but we need to be able to explain it”.

Metro One uses the Symbolic Imaginative Developmental Play Checklist (SIPDC) (Stagnitti, 1998) to assess children at the beginning of each year, however they discussed the need to evaluate at the end of the school year to evaluate outcomes, “We could do post SIPDCs”.

Regional One and Regional Two did not currently assess their children pre and post Learn to Play, but expressed interest to the researcher in having more support around this so that they could be measuring the outcomes in children.
Structuring Learn to Play to allow for the challenge of play with children with developmental delay and disability.

When engaging children with developmental delay and disabilities in play, there are a range of considerations. Staff need to be able to decide what play activities would be appropriate for a child or children to engage with, and if unsuccessful they must be able to think on the spot and be able to alter a play scenario to keep the child engaged in play. Staff need to be confident in co-playing with children, whilst also managing any behaviours (such as unwillingness to participate) in play. Staff also had to manage a child’s reduced attention span, as many children with developmental delay and disability disengage and remove themselves from a play scenario. It was also challenging for staff to know how to support self-initiated pretend play whilst also scaffolding a child’s play so that they could build on their current play skills. Staff, who had more skill and confidence in matching play activities to a child’s developmental level, were more confident in running a Learn to Play Program. Finally, structuring Learn to Play sessions for children with developmental delay and disability created a more successful program as children were more likely to understand the play program.

One teacher from Metro Two acknowledged the difficulties staff often face when involved in a play program with children with developmental delay and disabilities.

“I think just as teachers the most challenging thing is really for staff to feel confident in that room. I think it’s very scary for a lot of staff. We’re not trained in play. We spend all
of our day trying to control these children and working with their behaviours and it’s really hard for a teacher to go into that room and just let go for a little bit”.

Another issue was highlighted by Metro Two in terms of training of integration aides, “integration aide staff is another issue for me. I think they should be just as trained in the program as teachers. I worry about that. The integration aides just don’t quite understand what they’re meant to be doing”.

Metro Two identified the challenge of staff to be involved in play when they spent a lot of the day controlling behaviours which was also identified as a challenge by Regional Two,

“Modelling was difficult because you found your attention was drawn from playing to having to chase the child. That was a challenge”.

One particular staff member who had an integration aide role at Regional Two and was new to play-based learning and the Learn to Play Program found the skills involved in play-based programs challenging,

“One difficult thing is knowing whether to just let them play and knowing when you need to step in. Knowing what to say and what to encourage them to do. If you encourage them, are you changing what they wanted to do? It’s hard to know”.

This was also highlighted by an integration aide within the school who had difficulty with the spontaneity element of play and wanted play ideas written down on a list to refer to,
“They’re [the children] are the lucky ones because their imagination is there. We [adults] are the old ones being manipulated, so our innocence is lost... If you get old, you lose that... a laminated piece of paper with ideas would be good. If you run out of basic ideas, you have a list to get through the rest of the time”.

These statements reflect the challenges posed by a teacher at Metro Two, in relation to integration aide staff needing more training and support in the Learn to Play Program.

In contrast, another teacher at Regional Two was quite confident in supporting children’s play skills “As soon as you come down to their level, they engage more. You ask if they want to do an activity with you, and they might have never had that before’.

One teacher highlighted the importance of understanding play development so that you can target children’s play skills appropriately,

“I think having that knowledge of the developmental continuum means you can really pick out what you’re aiming at”.

The differences of staff skill level in pretend play highlighted that some who understood how to engage in pretend play with children well, and others who found it more difficult and needed that sense of control that Metro Two discussed.

Metro One staff, two teachers and a speech pathologist were comfortable in tailoring the Learn to Play Program to suit the developmental level of their children. Metro One had been involved in a Learn to Play Program in previous years, which helped the staff to feel
comfortable with play. Play was also used to determine what class children entered into,

“...their play level was a big determiner in which class they would enter into...”, Therefore

play must be understood by staff. Metro One being an SDS school, had children with the

lowest IQ levels in the study. This impacted on the way they ran the program,

“Babies came with us around the school. We integrated them into lessons. They

became part of a day, which helped and then we honed in on that a little more during the day

sessions. We were just trying to keep them engaged because they're all very different

individuals”.

Staff demonstrated their understanding of including sensory-motor play with pretend

play for children with lower developmental levels,

“Baby came into play, so we would put the baby in the spin dish, which then spun

around which gave him that visual thing that he needed and just trying to use the props in his

space in a comfortable way, which helped”.

Metro One were also flexible in the way they integrated Learn to Play into their

curriculum and described play as “it’s fun, it’s been good. There’s no other way [than being

a co-player with children].

Metro One did highlight the difficulty in engaging children with low level IQ’s and

play skills, particularly in the Learn to Play Program,
“Sometimes we withdraw them and sometimes we work together as a three…there’s only so much you can do together…with the kids in my class this year”.

Regional One faced the issue of limited staff to run the Learn to Play Program in this study, and it was up to the integration aide to run the play sessions with two children, or a small group of three on her own. The staff explained that this challenged the way they were able to engage in with the children,

“We don’t do it [co-playing with children] as much as we used to when we were in our individual groups. We could have one [staff member] who organises it and one who does the play side”.

Overall, Metro One and Metro Two had staff with strong skills in running a Learn to Play Program, including confidence and comfortability in co-playing with children. Regional Two had a mix of staff, some who were confident and some who were not. Through the lack of support behind Regional One’s play program, the one staff member struggled on her own.

Schools who were adaptable with the Learn to Play Program and integrated it to suit the needs of the children showed most success, for example staff at Metro Two who had implemented it in both the classroom and the Learn to Play sessions had appeared the most confident in play. Metro One adapted the program to suit the needs of children with lower developmental levels, highlighting the need for sensory-motor play to be combined with pretend play. Regional One needed more support behind the Learn to Play program so that it
could be enjoyable for staff and children, instead of what staff described a “process”, that is they went in, ran the program and that was that, no new ideas or planning meetings.

Staff at Metro Two were comfortable in supporting children to engage in pretend play, including play into their classroom curriculum outside of the allocated time for the Learn to Play Program, Schools who were able to structure the Learn to Play Program with a designated time and space within the curriculum found the implementation much smoother.

“We have structured play in the morning. I’ve got sets of toys similar to what we have in the ... [play] room... It’s been really good, because they’ll do hairdresser or doctor for about five or ten minutes, and then they’ll move off and they’ll want to do some building with Lego”.

Staff could recognise children’s abilities and were able to demonstrate their skills in providing support to children who needed it,

“There’s really only one or two [children] that require a lot of support. The ones that drift away [walk away or disengage from the play] and need to be brought back [re-directed to join in the play] .... The majority of the others can either just play with the toys or play with each other quite freely without a lot of teacher support”.

Regional Two implemented their Learn to Play Program in the classrooms, by including sensory motor stations with pretend play stations,

“We then had one station set up in a back room where we did pretend play. We went back to using video modelling. We found we were getting so much more out of them [children] in that
15 minute block [of pretend play] than we were in the 45 minutes we were trying [at the start of the year]”.

Parents must value play.

The value of parental understanding about play and the use of the Learn to Play Program within a school setting was a critical aspect to the program implementation. All schools informed the parents of the Learn to Play Program and what the aim of the program was to differing levels. Some schools invited their parents into view the program, other schools relied on written communication about the program.

A teacher at Metro Two with a good understanding of the Learn to Play Program described the process of communicating goals with parents,

“The Learn to Play Program is a really good way to say, “This is how we’re dealing with that. It might just look like we’ve got a room full of games, but this is why we are doing it. That’s really powerful as a teacher, because there are so many behavioural issues”.

This supports Learn to Play as a program suited to enhancing the development of children with developmental delay and disability, where behavioural, social and emotional issues are often present which impacts on a child’s learning. Metro Two described their positive comments from parents,

“A lot of them [parents] have reported back saying ‘so-and-so has been playing better; playing nicer with their siblings’, which has been really positive”.


This was reflected through parent reports at Metro One stating that they have only received general feedback but it has been positive, “Only just generally, they are going really well and that they’ve seen improvements in their behaviour”. Metro One has a range of cultural backgrounds of families being in a lower socioeconomic area. Metro One explain

“Parents don’t come in and have a look or anything like that generally”.

“I thought if they saw this Learn to Play timetable for 12 months, they wouldn’t be happy, but when they knew exactly what it was for, what it did and the benefits, we haven’t had any criticism” (Regional One).

Regional One placed a strong emphasis on the importance of educating parents about the Learn to Play Program, so that they understood the program and were able to link play with learning,

“At the beginning of the year, I gave them all a handout. With our preppies [children in their first year of school], a lot of those meetings are taken up explaining what these skills are. So initially, they just thought it was play and wondered why we were doing that…. When they knew exactly what it was for, what it did and the benefits, we haven’t had any criticism”. In contrast, Regional Two stated that they were not sure how parents received the program said “I just mention it at parent teacher interviews, but I don’t think I’ve had any feedback as such”. A teacher stated, “We brought it up in a PowerPoint when transitioning last year, but the parents were a bit overwhelmed and it was too much to take in”. The staff did recognise
that it was important to have the parents understanding of the program, “We could maybe get their opinions of what they see at home. That might be good, so we can provide feedback”.

Although Regional Two had no specific feedback from parents on the Learn to Play Program, they did have a situation where a child’s play at home had changed, “His mum came in crying the other day because he’s now playing in his bedroom, which he’d never done before”.

Conclusion

The results of Study Three demonstrate that staff valued play in childhood development and this was similar across all four schools in relation to the importance of pretend play for children with developmental delay and disability. The importance of play and its relationship with language, social skills and cognition was also highly rated. Overall the Learn to Play program was implemented using a designated play space within the school setting for 45-1-hour sessions at least once a week. School management practices and policies had a critical role in the success of a Learn to Play Program. School staff needed to be supported not only by management views of play but also through the processes such as timetabling and time release. Findings also revealed that staff needed to be motivated and skilful in Learn to Play in order to feel comfortable within a play program. Overall, staff did not feel comfortable in assessing children’s pretend play skills which was reflected in the focus groups where the need for assessment was critical in relation to evaluating the effectiveness of the Learn to Play Program, as well as any changes in a child’s development.
Numerous challenges were presented when engaging children with developmental delay and disability. Staff who felt more confident in engaging with children in play, were more comfortable in matching play activities to a child’s developmental level. Staff and parent feedback to the staff participating in this study reported positive results in relation the changes they observed in children throughout the program, including an increase in pretend play skills, more social play such as sharing, turn-taking, listening, communication and language and positive changes in behaviour.

Chapter Eight will now continue part three of the program evaluation (post evaluation) (Moscoso et al., 2013) with the presentation of Study Three discussion and the Gervais Framework.
CHAPTER EIGHT

STUDY THREE DISCUSSION

Study Three was designed to explore the views of staff on the importance of play in enhancing development and learning, and staff experience in running a Learn to Play Program, which will be discussed in this chapter. Following this, Chapter Nine will include an integration of all three studies to explore the commonalities and differences amongst schools in the way that they implemented the Learn to Play Program, and the changes observed in the children. The analysis of the commonalities and differences will inform the recommendations for a sustainable Learn to Play Program within special/SDS schools which will conclude this thesis in Chapter Ten.

This current chapter reflected Moscoso et al.’s (2013) stage three of program evaluation (post program) where the outcomes of the program are explored. This study also informed stage two, which was the experience of implementation of the Learn to Play program for staff. The opinions of staff were critical because they were key informants and were responsible for implementing and running the Learn to Play Program within their current school curriculums.

The Model of the Dimensions of a Program (Gervais, 1998) was the framework for the evaluation of the Learn to Play program within special/SDS schools. The previous chapter, Chapter Seven presented the results of Study Three with the focus groups and questionnaires, post implementation of the Learn to Play Program. In this discussion, the findings will be discussed under the Gervais Framework headings. The themes presented in the results in Chapter Seven will be integrated within the Gervais Framework headings throughout the discussion in this chapter.
This chapter will firstly present the findings of Study Three through the presentation of the Model of the Dimensions of a Program (Gervais, 1998). Table 8.1 shows how the Gervais Framework will be presented across two figures in order to display the information suitably. This Figure will be divided into Figure 8.1 (the Structural, Operational and Strategic components) and Figure 8.2 (the External Environment, Constraints, Needs and the Results/Impacts) as displayed in the table. Following the presentation of the Gervais Framework in Figure 8.1, the Structural Dimension of the Gervais Framework (that is, the resources and structure of the Learn to Play Program) will be discussed based on the findings from Study Three. Then findings to inform the Operational (processes, activities and behaviours) and the Strategic Dimension (policies and management practices). Figure 8.2 will then be presented followed by a discussion related to the Systemic (external environment) and the Needs and Constraints of the Learn to Play Program. Finally, the Specific dimension (results and impacts) will be discussed based on the findings from Study Three. The strengths and limitations, recommendations for future research and the conclusion will conclude this chapter.

Table 8.1

The Presentation of the Gervais Framework in Figure 8.1 and 8.2

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Figure 8.1. The Model of the Dimensions of a Program: Study Three Findings

**Resources & Structure**
Overall schools felt as though they had enough play materials/toys. The average was 45-1 hour sessions once a week amongst the schools. A mix between a designated play room and the Learn to Play program running in the classrooms. Sensory motor play included for children with lower developmental levels.

**Processes, Activities & Behaviours**
A mix between Learn to Play specific goals and goals imbedded into a child’s learning goals. Staff need to be confident in matching play activities to the developmental levels of children. Motivation of staff is critical.

**Policies and Management Practices**
A budget for the Learn to Play program is required. Staff felt more supported when management listed Learn to Play as a priority for the school. Two out of the four schools listed play programs within their strategic plans. Allocated time for staff to participate in the Learn to Play Program.
Structural Dimension (Resources and Structure)

The Structural Dimension includes the important aspects of a program’s structure which make it possible to implement within a particular setting, including physical, material and financial resources (Gervais, 2010). The Structural Dimension is important to consider in this program evaluation as it provides information about how each school set up their individual Learn to Play programs. The Structural Dimension is highlighted in Figure 8.1. A school structure which allowed for physical resources such as toys and materials and a space for the play program to run was the most effective. The Structural dimension closely intertwined with the Strategic dimension as the school’s management and policies inform the structural component of the program (e.g. the availability of resources and a space to play).

Schools all implemented Learn to Play to varying degrees within their existing school curriculums. All schools reported that they had enough physical resources (e.g. play materials) to support the Learn to Play Program. Most schools used a designated play space to run their Learn to Play sessions (e.g. a room set up with the materials they needed for each session). One school, Regional Two, ran the Learn to Play Program within their classroom settings. This was because their children had a mix of play abilities and they found it easier to set up the classroom rather than shifting the students elsewhere. Metro One and Metro Two demonstrated their flexibility in running a Learn to Play Program by integrating it in both their classrooms and designated play space. Schools who were able to structure the Learn to Play within their timetable, for example Metro Two, were more confident in running their play programs. This may have been due to the fact that staff were aware of the routine and prepared for play sessions. This allowed staff to be organised and the routine predictable, not only for staff but also for the children.

For lower level players, play was imbedded into their classroom activities. For higher level players who could “cope” with the play room, they were withdrawn from the
classroom. This demonstrates that the Learn to Play Program was implemented in a flexible way in school settings, which was also demonstrated in the way that staff used sensory motor play as well as pretend play, to support the varying levels of play of the children. Staff recognised that they needed to be flexible in the way they implemented the program, otherwise they would run the risk of children disengaging.

Interestingly, Metro Two was the only school which implemented Learn to Play for two x one-hour sessions per week, (as opposed to one session or in Regional One’s case 2-3 short 30-minute sessions (which included 15 minutes of pretend play and 15 minutes of sensory motor play) with school staff discussing strong beliefs in understanding play, being able to facilitate a program and engage as co-players with children. Regional One ran their Learn to Play Program twice a week with 30 minutes each session with two-three children as this was all that they could fit into the curriculum. This therefore limited their ability to run a successful program as they did not have the time nor the opportunity to invest in the Learn to Play Program. Metro Two, who had strong support from staff found that they could invest a lot of time into the program.

It was found in Study Three that although the resources and structure of play sessions can look differently depending on the school, there was a requirement that school staff felt supported by management (allowing resources and time). Therefore, the structural and strategic components of the Gervais Framework intertwine closely. For schools who had a clear structure of Learn to Play (e.g. regular set sessions throughout the week), they tended to be supported by management and the school policies extremely well. For schools who lacked structural components, such as resources and staff, management was not as supportive at integrating the Learn to Play Program into the school system. For schools such as Regional One, because they lacked time and staff, this impacted on the structural components of the program as the integration aide at the school ran short sessions with minimal students as she
had to run the Learn to Play Program on her own. In this school, no other staff were involved due to time constraints. This will be further analysed when the strategic component is discussed further in this chapter. Learn to Play needs to be structured within the school curriculum and supported within the strategic dimensions in order for a program to run effectively. When considering the structural dimensions of all four schools participating in this study, schools were supported well in order to implement a Learn to Play Program, despite some challenges with time constraints and staffing.

**Operational (Processes, Activities and Behaviours)**

The Operational dimension refers to the activities, processes and behaviours involved in the implementation of a program (Gervais, 2010). The Operational components of the Learn to Play program are highlighted in Figure 8.1

The qualitative data showed that schools were using a mix between specific Learn to Play goals and integrating goals within the curriculum goals for existing students. Metro One and Metro Two were both able to link the Learn to Play goals with the overall learning goals for children, rather than making them two separate goals. These schools found this beneficial, as otherwise staff would tend to only focus on one specific area in play (e.g. object substitution). This could lead to fragmented play, where staff may be unable to be immersed in an enjoyable play situation with the children, as they would be thinking about one particular goal. This also made it challenging for schools to link changes in development and learning (for example the changes seen in a child’s social skills, highlighted in Chapter two) to the Learn to Play Program as play was viewed separately to the learning goals. The way that Metro One and Metro two integrated the Learn to Play goals with the overall learning goals worked well for those two schools. The two schools did not view the Learn to Play Program as something separate, but something which complimented the learning and curriculum already supporting the children, which is why both of these schools found it easier
to communicate with parents about the benefits of the Learn to Play Program. This led to more confident and motivated staff involved in the play program as they were able to justify the use of play to meet developmental and learning outcomes. Within the literature, although motivation and confidence are not directly linked to justifying play and development, the study by Nolan and Paatsch (2018) identified that more professional development was required for teachers, in order to be able to understand how to integrate a play-based program within their curriculum, including support around structure, activities and justification of meeting learning requirements.

The Operational dimension of the Gervais Framework play a crucial role in the running of the Learn to Play Program. For this to run effectively, staff need to be confident, motivated and knowledgeable in matching play activities to developmental play levels of the children. Schools recognised the need for a Learn to Play coordinator or key staff member who could be involved with the structural and operational components of the program, for example organising play themes, activities, a space to play and session outlines. Schools viewed the importance of a Learn to Play coordinator in not only running the day to day processes but also having a high level of understanding into the program. Schools also discussed this in relation to the Strategic Dimension of Learn to Play in time release for staff.

**Strategic (Policies and Management Practices)**

The Strategic Dimension refers to the practices behind the program, such as management and policies (Gervais, 2010). The key policies and practices for the schools participating in this study are highlighted in Figure 8.1. Metro One and Two identified that they have strong support from management to implement the Learn to Play Program within their school curriculum and play was highlighted as a priority for the school. The strategic plans for each school was considered in relation to the value that was placed on play programs within their curriculums. Metro one and Regional Two highlighted play as a
specific focus within their curriculum. The strategic plans will be discussed further in Chapter Nine.

For the Learn to Play Program to be successfully integrated into a school’s curriculum it was found that management allocation of a budget for Learn to Play, time release for staff, a Learn to Play co-ordinator or staff member overseeing the program. Another important consideration was the motivation and understanding of staff within the whole school setting. In order for the program to run effectively, staff members needed to be invested in the program. Continued investment in the program was difficult to achieve if staff left a school setting (Regional One), or did not enjoy play (Metro Two). For Metro One, one of the staff members involved in Learn to Play had left at the beginning of the year. This was challenging for the Integration aide running the program on her own. She had no one to share knowledge with or ask about certain play activities or ideas. For Metro Two, the difficulty was around some staff members not understanding play and why it was in the curriculum. Therefore, staff engagement and understanding is a key priority which would be an area of focus for professional development in the future.

Schools discussed a budget for Learn to Play in relation to accessibility of resources. Metro One explained that they had a big budget for Learn to Play, which meant that designing and conducting activities were much easier as they had access to a range of play materials and toys. Metro Two supported this notion, discussing the ‘budget’ in terms of the overall support from management in relation to supporting a play program, including accessibility of resources and staff. In order to have a sustainable program, a budget or resource allowance is required so that schools have enough physical resources such as toys to run a Learn to Play Program.

In order for the processes of the Learn to Play Program to run smoothly, management support is required and time allowance within the curriculum (e.g. a designated one-hour time
frame each week within the timetable) and staff schedules (e.g. time to plan, implement and evaluate the play programs) positively contributed to the sustainability of the program over the seven-month period. This reinforces the importance for management to allow staff to have time release to work on the development and management of a Learn to Play Program, in order for it to be appropriately implemented to reflect the needs of the school. Some schools had enough time allocated, whereas schools such as Regional One faced challenges in implementing the program due to limited staff allocation (e.g. teachers were busy running other programs, so the integration aide had to run the program on her own). Although these schools felt supported from management, this was not reflected through their time allocation within the curriculum.

Regional Two discussed the importance of having a Learn to Play co-ordinator to oversee the program. This was discussed in relation to having one particular staff member with extensive knowledge and understanding in the Learn to Play Program, and how this would run in their particular school. This would allow other staff members to have a key contact for the Learn to Play Program. This forms part of the recommendations for the sustainability of a Learn to Play Program in the future, which will be discussed in Chapter Ten.

Management support was found to be important for the implementation and success of a Learn to Play Program in a special/SDS school. Management support was critical for the success of a program, as managers create partnerships with teaching staff, they allow staff to develop a sense of leadership, control in what they do and confidence in their teaching style (Parlar & Cansoy, 2017). This also forms a positive relationship between management and staff which helps to work towards common goals (Parlar & Cansoy, 2017). This is reflected through the participant’s views who all valued management support in implementing a Learn to Play Program within their schools.
It is also interesting to note that these two schools (Metro One and Two) were both supported by their school systems, including support from management and play being written into the school’s strategic plans as a priority which allowed them to be engaging in the higher-level thinking around assessment. Valuing pretend play in learning and children’s development, and how play fits within a curriculum were all present in schools where the Learn to Play program was embedded. Figure 8.2 will now be presented with the Systemic dimension (external environment), Constraints, Needs and the Specific dimension (Results/Impacts) in relation to the Learn to Play Program.
Figure 8.2 The Model of the Dimensions of a Program: Study Three Findings

**Results/Impacts**

Staff valued play in childhood development and recorded a similar mean for the importance of pretend play for children with developmental delay and disability. The importance of play and its relationship with language, social skills and cognition was also highly rated. Motivation is important for staff to participate in play interactions. Staff felt challenged in matching play activities at the right level for the children. To use a play assessment to evaluate children’s outcomes each year and training in play assessment. Training integration aides in play is essential. View ing play as part of the curriculum is important, not as a separate program. A coordinator of the Learn to Play Program within each school. Children have shown an increase in pretend play skills, more social play such as sharing, turn-taking, listening, communication and language has increased as reported by the staff. Play assessments in study two demonstrated: an increase in pretend play, social, language and academic competence. The Learn to Play Program positively impacted on a child’s academic competence and narrative development. Pretend play at baseline predicted a number of key areas of development at follow up including; narrative, social skills, language and academic competence. Generalisation of social skills into the home and classroom environment. Observations of improved literacy skills and self-initiation in children.

**External Environment**

Overall, the Learn to Play Program was positively viewed by parents. Communication from staff to parents about the Learn to Play Program varied between parent teacher meetings, school reports, informal conversations, handouts. Generalisation of social skills outside of the Learn to Play Program (into the classroom and home environment) have been reported.

**Needs**

Allocated time for staff to participate in the Learn to Play Program.
A coordinator of the Learn to Play Program within each school.
The need for staff to be invested/motivated to participate into the Learn to Play Program.
Offering support to each other (staff) around the Learn to Play Program.
Training integration aides in play.
To use a play assessment to evaluate children’s outcomes each year and training in play assessment.
Staff need to understand play development.
Staff need to link play to learning goals.

**Constraints**

Staff did not feel comfortable in assessing children’s pretend play skills.
Difficulty in new staff members stepping into the program as they do not understand how to facilitate a play-based program.
A lack of understanding about play and how it can be used to support learning by staff.
Staff did not have additional time allocated to the Learn to Play Program.
Staff lacked support from other staff who were not involved in the play program.
Staff lacked confidence in play.
Staff were allocated to other programs which meant less time to be involved in the Learn to Play Program.
Time constraints in the curriculum, many programs included in the curriculum.
Staff felt challenged in matching play activities at the right level for the children.

**Structural, Operational and Strategic Components**

Allocated time for staff to participate in the Learn to Play Program.
A coordinator of the Learn to Play Program within each school.
The need for staff to be invested/motivated to participate into the Learn to Play Program.
Offering support to each other (staff) around the Learn to Play Program.
Training integration aides in play.
To use a play assessment to evaluate children’s outcomes each year and training in play assessment.
Staff need to understand play development.
Staff need to link play to learning goals.
Systemic Dimension (External Environment)

The Systemic Dimension considers the external influences on a program (Gervais, 2010). These components are highlighted in Figure 8.2. Within three of the four schools, the Learn to Play program received positive feedback from parents. Regional Two was the only school who did not have feedback from parents. Communication from staff to parents about the Learn to Play Program occurred through parent teacher meetings, school reports, informal conversations and handouts.

Metro One used meetings with parents to describe the program and what they were focusing on in Learn to Play, as well as written communication in the form of handouts at the beginning of the year. Staff noted that once parents understood what the goals of the play program were for their child, they had more positive feedback. Parental involvement in a child’s education has been positively associated with better student outcomes, with a review of literature conducted by Hoover-Dempsey et al. (2005). An important component to parent engagement was invitations to be involved by the school community, teachers and by the children themselves. The school structure and management systems (strategic dimensions of the Gervais Framework) are critical for parents to feel supported within the school by parental understanding that they are welcome within the school, their concerns and ideas are heard and that they are well informed about their child’s learning and progress (Hoover-Dempsey et al., 2005). Therefore, this demonstrates the connection between the Strategic and Systemic (external environment). In this current research, it was beneficial to allow parents to feel supported through having face to face contact and a discussion about the Learn to Play Program. This allowed parents to feel informed about their child’s learning and progress, a key component to parental engagement (Hoover-Dempsey et al., 2005). Metro two faced challenges in parental engagement as many children got the bus to and from school, therefore parental discussions were limited. Staff said that they “mention” (the Learn to Play Program)
at parent/teacher interviews. Due to the fact that parent/teacher interviews are focused on many areas of the curriculum (e.g. literacy, maths, art) therefore this time is limited, it would be difficult for staff to go into great detail about the Learn to Play program and how this program is aimed at enhancing their child’s development and learning.

Another important consideration of parental engagement is the cultural aspects and parental understanding of play and how these impacts on whether pretend play is encouraged at home (Gleason, 2005). Research shows that generally, parents are confused about what their children are involved in at school (Crozier, 1999). In a literature review conducted by Jafarov (2015) evaluating the factors affecting parental involvement in education, the following factors were highlighted as contributing to parent involvement within a school: parent’s educational background, lack of knowledge about the school’s curriculum, teacher’s attitude, time constraints, culture, lack of transportation and parenting style (Jafarov, 2015).

In a study investigating the involvement of parents in the education of children with special needs in Lithuania, parents with higher educational backgrounds were more involved in communication with staff, whereas parents with a lower level of education were less involved in communicating with staff regarding the school curriculum (Sukys, Dumciene, & Lapeniene, 2015).

Being aware of these factors, would inform schools about how to engage with parents around the Learn to Play Program. For example, if schools are informing parents of the Learn to Play Program through the school reports, a parent with low level literacy skills will be disadvantaged and may not be able to read and/or interpret the information. Consideration of alternative ways to communicate the program with families becomes important. Staff members using conversations with parents after school as a way of communicating the program gave parents the opportunity to discuss what changes they were seeing at home.
Needs

The Needs of the Learn to Play Program are presented in Figure 8.2. The Needs have been integrated throughout the Structural, Strategic and Operational components discussions of the Gervais framework, therefore they will not be discussed separately. The needs in terms of the Learn to Play Program across all four schools participating in this study included: allocated time for staff to participate in the Learn to Play Program, a coordinator of the Learn to Play Program within each school, the need for staff to be invested/motivated to participate into the Learn to Play Program, offering support to each other (staff) around the Learn to Play Program, training integration aides in pretend play, using a play assessment to evaluate children’s outcomes each year and training in play assessment, and finally, staff need to understand play development and be able to link play to learning goals.

Constraints

The Constraints of the Learn to Play Program are presented in Figure 8.2. The Constraints impact on all areas of a program therefore have been integrated within the Structural, Strategic and Operational Dimensions of the Gervais framework and will not be discussed separately. The Constraints experienced by the schools participating in the Learn to Play Program include: staff did not feel comfortable in assessing children’s pretend play skills, it was difficult for new staff members stepping into the program as they did not understand how to facilitate a play-based program, overall a lack of understanding about play and how it can be used to support learning by staff, staff did not have additional time allocated to the Learn to Play Program, they lacked support from other staff who were not involved in the play program and lacked confidence in play and finally time constraints in the curriculum, many programs needed to be included in the curriculum throughout the year.
Specific Dimension (Results and Impacts)

The Results and Impacts are highlighted in Figure 8.2. It was found that all four schools running a Learn to Play Program saw changes in the children’s development. This was supported in both the focus groups and the questionnaires.

Generalisation of social skills into the home and classroom environment was reported in the focus groups in Study Three. Staff commented that parents reported that they had noticed their child playing with their siblings at home. Staff reported the changes in social interaction, turn-taking, a greater awareness for peers and more play in the yard. This supports findings in the quantitative results in terms of the ratings of the importance of play (all above 9), and the value of play-based programs within special and SDS schools (all above 9). Metro Two observed changes in the children’s drawings, imagination and literacy skills. Literacy development and its link with pretend play is supported within the literature by Whitebread and O’Sullivan (2012) who found that when children develop their pretend play skills particularly social pretend play (which was used in this study as children participated in the Learn to Play Program with their peers) this is connected with increased cognitive ability, including literacy, problem-solving and imagination as children are engaging in more complex behaviours. This can be attributed to the increase in the children’s elaborate play and social skills which in turn has impacted on their literacy, imagination and creativity in this study.

Metro Two highlighted that they had noticed children interacting a lot more with each other, which they did not expect would happen outside of the classroom. In a previous study using the Learn to Play Program in a Specialist School setting, all children demonstrated gains in their social skills (O'Connor & Stagnitti, 2011). It was interesting to see in a number of schools that the increase in play skills were also generalised across to the classroom and out of school, for example at Regional One, teachers described a child using symbolic toys
(boxes and tins) in the classroom to make things. Regional Two said that a mother was crying because her son was now playing in his bedroom, which he did not do prior to the play program. Sherratt (2002) studied the symbolic play of five children with autism in a Specialist School setting in the UK who participated in a four-month intervention focused on developing symbolic play skills. At the conclusion of this research children were found to be able to generalise their skills to less formal and unprompted play settings.

Language and communication skills were another area described by staff as having significant changes, "language, communication and taking turns have all improved" (Regional One). This finding concurs with previous research which found links between the development of pretend play to the development of language skills in children (Bergen, 2002; McCune-Nicolich, 1981; Stagnitti, 2009). Irrespective of how schools implemented the Learn to Play Program and the challenges they faced, all schools saw positive outcomes in their children’s development and learning through participating in the Learn to Play Program.

The skills and comfort levels of staff in engaging in a play program were highly important for the success of the Learn to Play Program. At times staff faced difficulties in remaining motivated due to the challenges they faced, such as time allocation, understanding how to be a co-player with children and being confident in engaging in play. It was interesting that both Metro One and Metro Two who had in depth knowledge of play and the value of play in childhood development found it most difficult in matching play activities to the right level for the children. This may have been due to the fact that these two schools have children with a mix of abilities, with some higher-level players and some very low-level players. Therefore, when staff were developing play activities for the group, it was challenging to design activities that would match the developmental level of all children participating in the Learn to Play Program. It may also be attributed to both schools being involved in Learn to Play programs for some time (prior to this research) and that staff were
now thinking at the next level of development and integration of the Learn to Play program into their schools, therefore they were looking deeper into matching play activities to the right developmental levels of children.

In comparison to other schools, Metro One and Metro Two were most comfortable in assessing the pretend play skills of children, which influenced their discussions about measuring outcomes of Learn to Play, in terms of where they could take their program with assessment. Both schools were thinking about how they could measure the changes in children’s development at the beginning and end of a school year. This demonstrates a high level of thinking about the program, and a willingness of staff to step out of their comfort zone to assess play, even though they noted that they were not trained in play within their teaching degree (Metro Two).

Regional One and Regional Two rated ‘somewhere in between’ in relation to the challenge of matching play activities to the developmental levels of children but both school’s stated that they were not comfortable in assessing a child’s pretend play skills and did not currently use any pretend play assessments. This reflects the difficulties posed by Regional One in relation to one staff member (integration aide) running the Learn to Play sessions on her own, stating that she tends to “wing it”. This demonstrates that through a lack of time and support, this staff member was merely going through the motions of running the program each week with limited reflection or thinking about assessment. This also highlights the need for training of integration aides around play and how to engage with children throughout the Learn to Play Program. Through discussions with this staff member, it was clear that she was not comfortable in running play sessions on her own and was unable to fulfil the role of a co-player with the children as she was going from “one activity to the next”. Play became a process for this school instead of an enjoyable program.
The discussions from Regional Two reflected the difficulties in feeling comfortable with assessment of play, through the variability in staff confidence and skills in playing, with some of the staff lacking confidence in playing with children and following their lead in imaginative play. Staff members who were more comfortable with play, could think more broadly about the program, considering how parents understood the program and how to assess children’s outcomes pre and post program.

**Strengths and Limitations of this Study**

A strength of this study was the variation of the key informants through participant backgrounds, demographic and geographical locations and participant roles within the school setting, including a range of roles such as teachers, therapists, assistant principal and integration aides. This allowed valuable information to be gained by people with different backgrounds, roles within the school and views on pretend play, development and learning. The variety in data collection (using both questionnaires and focus groups) was another strength of this study as information was gained across different methods of data collection. This allowed the researcher to analyse both qualitative and quantitative responses to gain an understanding of the Learn to Play Program from the perspective of participants. The variation in the way schools were able to set up and maintain a Learn to Play Program provided data that was relevant for a program evaluation. Saturation in data was reached as no new themes arose from the data at the final focus group. Similar to Study One, there was potential bias in socially desirable answers on the questionnaires and focus groups as all schools participating in this research were interested in the Learn to Play Program prior to participation and had just completed the Learn to Play Program in their school settings. Bias in terms of socially desirable answers in the focus group was reduced by ensuring that the principal supervisor reviewed the focus group questions, and that the questionnaires were designed based on Fink and Kosecoff (1985) recommendations for survey design, and the
researcher was not involved in any of the school programs. The questionnaire was checked by the researcher and the principal supervisor for double-barrelled questions and any potential bias prior to this study. As this study had a small sample size within a specific population, results cannot be generalised beyond this sample.

**Recommendations for Future Research**

The findings of this study help to address future development of the Learn to Play Program within special and SDS school settings as well as the role of teachers, therapists, principals and integration aides in running Learn to Play Programs within special/SDS schools. As this research is new in the field of Learn to Play within special/SDS schools, more research is required to further explore these views and understandings of staff in relation to running a Learn to Play Program within their curriculums, on a larger scale, extending outside of Victoria Australia. More research is required to investigate the specific skills that staff require to implement and sustain a Learn to Play Program across a longer time frame (e.g. over a two-year period) so that the experiences can be explored more deeply.

**Summary and Conclusion**

Study Three was the final study on the impacts of the Learn to Play program and its implementation in special/SDS schools (post program implementation). The study results were discussed within the Gervais Framework.

The Structural Dimensions of the Learn to Play Program revealed that in order for a Learn to Play Program to be effective within a special/SDS school, schools needed to be able to integrate a Learn to Play Program into their schools in a way which worked for them. Schools needed to be able to integrate the Learn to Play Program into their curriculum, either using a designated play space or classroom (both worked for different schools). Schools need the physical resources such as toys and play materials to run Learn to Play sessions. Sensory motor play activities were included in the program to support the varying levels of abilities of
children within the play groups. Regional Two and Metro One both included sensory-motor play in their sessions in order to increase the children’s engagement, as both of these schools had lower level players with lower cognitive skills. As engaging in pretend play involves children using their cognitive skills (Bergen, 2002) it was important that for children with developmental delay and disability to also have sensory motor play included in their Learn to Play program. Within the literature, pretend play has been found to be positively correlated with supporting sensory integration, with pretend play being used as means to support children to engage in sensory activities to support their just right (optimal regulation) level (Roberts et al., 2018).

The Operational dimensions were impacted by the value staff placed on play as this understanding provided motivation for staff to participate in play. In order for teachers to be able to use pretend play to enhance the learning of children within their curriculums, they needed to be able to provide a space to play, understand how play could be used to support learning, be able to scaffold, model and interact with the children during play (Stagnitti, 2010; Stagnitti & Unsworth, 2004). For staff who did not understand these skills, they were not comfortable in the play process.

It was found there is a need for all staff, including integration aides to be trained as well as teachers and therapists in the Learn to Play Program. The challenges were seen by integration aides at Regional Two who had difficulty using their imagination to come up with new play ideas. Many teachers limited the use of play in their curriculum as they did not fully understand how it could be used to support learning. The challenge in using their imagination to come up with new ideas was also found in a recent study by Nolan and Paatsch (2018) who investigated the views of two teachers involved in play-based programs in mainstream schools. Similar challenges were found in terms of the many components to consider in
implementing a play-based program, time, space to play, meeting the learning goals of children and being creative (Nolan & Paatsch, 2018).

The ability to be a co-player alongside a child, supporting them to develop their play ideas was also challenging for some staff in terms of knowing whether to step in and support children’s play skills, or whether this means that you are changing the child’s idea. This highlights the essential need for school systems to allocate a budget to the Learn to Play Program so that staff can get adequate training.

The Strategic dimension revealed that for a Learn to Play Program to be successful, the program needs to be supported by management, including a budget, time release for staff, staffing, and inclusion time within the curriculum. All management teams valued Learn to Play in their schools, however for the program to be effectively imbedded this needed to be reflected through their school processes, such as timetabling and time release. A Learn to Play co-ordinator or staff member overseeing the program as well as staff who have a good understanding of play and how it fits within a curriculum, contributed to the sustainability of the Learn to Play program within a special/SDS school.

The Systemic (external environment) dimension revealed that Learn to Play program received positive feedback from the participant’s parents across all four schools. Research shows that parents who understand the importance of pretend play will tend to encourage it at home, whereas parents who do not understand pretend play, will tend to encourage other activities (Gleason, 2005).

In order for staff to be able to explain the Learn to Play Program to parents, they needed to be able to understand the program and the skills they were working on with the children. This increases the staff member’s confidence in explaining the aims of the Learn to Play Program. For a staff member who did not have a good understanding of pretend play it
was more difficult to explain the Learn to Play Program. This was likely impacting on the lack of communication some schools have with parents around the Learn to Play Program.

Finally, the Specific dimension (results/impacts) of the Gervais framework demonstrated the connection between the staff views of child development in relation to child outcomes in increased pretend play, social skills, language and academic competence following the participation in the Learn to Play Program. The Results and Impacts demonstrated that the Learn to Play Program had a positive impact on the development and learning of children. Staff involved in running the Learn to Play Program felt as though with some areas of development, such as increased confidence, skills in designing play activities and training in play assessment, they would feel supported and motivated to participate in the Learn to Play Program. In order for schools to be able to implement the Learn to Play Program over a longer duration, they needed the support of management and school systems.

Following on from the findings of Study Three, Chapter Nine will continue to build on Moscoso’s et al. (2013) program evaluation process in analysing the outcomes of the program. Chapter Nine will present the commonalities and differences between schools in the way that they implemented the Learn to Play Program. This will help to inform recommendations for the sustainability of the Learn to Play Program in Special/SDS schools in the final Chapter, Chapter Ten.
CHAPTER NINE

COMMONALITIES AND DIFFERENCES BETWEEN SCHOOLS

The previous chapters have presented the findings from Study One, Study Two and Study Three. This chapter will integrate the findings of all three studies, which explored staff experiences pre- Learn to Play implementation, and children’s outcomes and staff experiences during and post implementation. This chapter integrates findings across all three stages of the Moscoso et al. (2013) process of program evaluation. This chapter will explore the findings from each individual school in more depth in relation to the Gervais Framework. By analysing each school separately, information can be gained regarding commonalities and differences in the Structural, Operational and Strategic dimensions of the Learn to Play Program. This chapter will also discuss the findings through the use of the PEOP Model (presented in Chapter Two) to explore the findings in an occupation centred framework. This will allow for commonalities and differences to be compared and contrasted between each school setting and linked with developmental outcomes from the children who participated in the Learn to Play Program. This exploration is critical, in order to make recommendations regarding the sustainability of the Learn to Play program in special/SDS schools which will conclude with the final chapter, Chapter Ten.

The aim of this chapter is:

1) To explore the commonalities and differences between schools in the implementation of a Learn to Play program, including resources and structures of the program, and benefits and constraints in order to make appropriate recommendations about the future implementation of a Learn to Play program in a special/SDS school.
Analysis with the Model of the Dimensions of a Program Framework

This chapter begins with an analysis of the commonalities and differences between the schools participating in the Learn to Play program evaluation through the use of The Model of the Dimensions of a Program Framework (Gervais, 1998). This chapter brings together findings from the three studies and includes the focus group data (Study One and Three), questionnaire data (Study One and Three), public document analysis (Study Three) and child outcomes (Study Two).

The Model of the Dimensions of a Program will now be presented for each school. Due to the amount of information presented, each figure will be divided into two parts, presented across two pages, as displayed in Table 9.1. Figure 9.1.1 will present the Structural, Strategic and Operational components of the model, and Figure 9.1.2 will present the Needs, Constraints, Systemic (external environment) and the Specific (results/impacts) for Metro One. Following on from this, Figures 9.2.1 and 9.2.2 highlight The Model of the Dimensions of a Program Framework for Metro Two. Figures 9.3.1 and 9.3.2 highlight The Model of the Dimensions of a Program Framework for Regional One and finally Figures 9.4.1 and 9.4.2 highlight The Model of the Dimensions of a Program Framework for Regional Two. The data from each individual school is then combined to discuss the commonalities (see Figure 9.5) and differences (see Figure 9.6) within each dimension to compare and contrast the findings. This will be done alongside the PEOP Model. The PEOP Model will be presented for each school, following on from the presentation of the Model of the Dimensions of a Program. The Model of the Dimensions of a Program will now be presented for each participating school, starting with Figure 9.1.1.
Table 9.1

*The Presentation of the Gervais Framework in Figures 9.1.1 to 9.4.2*

<table>
<thead>
<tr>
<th>School</th>
<th>Structural/Operational and Strategic dimensions</th>
<th>Constraints, Needs, Systemic and Specific dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metro One</td>
<td>Figure 9.1.1</td>
<td>Figure 9.1.2</td>
</tr>
<tr>
<td>Metro Two</td>
<td>Figure 9.2.1</td>
<td>Figure 9.2.2</td>
</tr>
<tr>
<td>Regional One</td>
<td>Figure 9.3.1</td>
<td>Figure 9.3.2</td>
</tr>
<tr>
<td>Regional Two</td>
<td>Figure 9.4.1</td>
<td>Figure 9.4.2</td>
</tr>
</tbody>
</table>
Figure 9.1.1. The Model of the Dimensions of a Program: Metro One

Physical resources: Learn to Play sessions conducted in the classroom as well as a play room. Some children (higher level players) would go to the play room in pairs. This worked best for the staff and children.

Play materials: Satisfied with the current play materials and resources to support a Learn to Play Program.

Financial: “big budget” to support the Learn to Play Program

One hour allocated to the Learn to Play Program per class each week included into the curriculum.

Strong support from leadership. Staff believed without this support the program would not be manageable.

Positive views from staff in relation to their school curriculum “really good”.

Play is used to determine what class children enter into.

Play therapy was included in the school’s strategic plan, the strategic plan highlighted how Metro One value play by saying play is the primary occupation in childhood.

The Learn to Play Program ran for one, one-hour session every week. Children were split into groups based on abilities.

Sensory motor play was included in Learn to Play sessions.

Speech Therapist involved in running the Learn to Play Program once a week, along with the teachers and integration aides.

Play goals were integrated into learning goals (not separate) and play was viewed as contributing to learning goals. Staff felt that if the goals were separate, staff would just work on that specific goal, not integrate the goals within the existing learning framework. Children assessed beginning and end of year with SIPDC.

Metro One had been involved in a Learn to Play Program in previous years.
### Needs

- To use the Symbolic Imaginative Developmental Play Checklist (SIPDC) towards the end of the year (as well as the beginning) to evaluate the outcomes of children’s play skills.
- More support to link Learn to Play with the curriculum.

### Constraints

- Many children did not have the skills for Learn to Play (were more involved in sensory-motor play).
- Of the sample, the children had the lowest IQ’s in this school, as a Special Developmental School (SDS) compared with special schools, which impacts on child’s cognitive capacity for Learn to Play.
- A large amount of adult support needed, play was very repetitive and many children could not engage in pretend play at the time of the study.
- Staff felt challenged in matching play activities to the developmental level of children as they had the lowest level of children attending their school.

### Results/Impacts

- Metro One value play in childhood development, the importance of play for children with developmental delay and disability and the impact of pretend play on language, social, cognition and learning in the school environment pre and post implementation of a Learn to Play Program.
- Metro One value a play-based program in a special/SDS school setting.
- Staff were confident in assessing a child’s pretend play skills.
- Understand how to adapt play sessions depending on the children.
- Include pretend play elements in sensorimotor play as well. Staff are able to be flexible with play and understand how to engage lower level players.
- Staff value the importance of using children’s interests in play, to keep the children motivated.
- Overall, staff were confident in being co-players with children.
- Metro One were more comfortable in following a child’s lead and being involved in spontaneous play when compared to the other schools.
- Children’s play skills have increased through participating in the Learn to Play Program. Staff also described the greater awareness children now have for their peers, with more functional play and interaction.
- Staff were flexible in their approach to integrating play into the curriculum.
- Generalisation of positive behaviour into general classroom participation.
- Children’s social skills and academic competence improved as measured by the raw score on the SSIS and academic competence score.

### External Environment

- Not a lot of involvement from parents but have received general feedback about children’s positive behaviour increasing.
- Diverse cultural backgrounds due to the demographic of the school.
- English is the second language for some children.

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**Figure 9.1.2. The Model of the Dimensions of a Program: Metro One**
Summary of Metro One.

The overall themes which emerged from Metro One were that they were satisfied with the Structural and Strategic dimensions of their Learn to Play Program. The school felt supported by management and felt as though they had enough physical resources, play materials and financial support for the Learn to Play Program. The processes, activities and behaviours (Operational dimension) were similar to other schools in relation to the setup of the program and Learn to Play goals were integrated within learning goals. Sensory motor play was included in play sessions for this school, due to the fact that it was an SDS school therefore children had low level pretend play skills. This was also a Constraint to the Learn to Play Program as many children did not have the skills for Learn to Play. Metro One did not have a lot of involvement from parents but did receive some feedback related to the children’s skills improving. The Needs highlighted by this school included a play assessment and more support to link the Learn to Play Program to the existing school curriculum. The Specific dimension (results/impacts) highlighted that staff were confident in co-playing with children and how to adapt play sessions to meet the needs of children’s play levels. Children’s play skills, social skills and academic competence had increased following participation in the Learn to Play Program and staff valued play in the curriculum.
Physical resources: Learn to Play sessions conducted in a separate room which is designated to play sessions. The room is set up with play stations, and room to play. All resources are kept in the cupboard. Video modelling (showing children play videos prior) and encouraging choices were strategies used by staff. Children were able to choose the play station they would like to start at.

Play materials: Staff were satisfied with the current play materials and resources to support a Learn to Play Program, pre and post implementation. Materials divided into ‘play boxes’ which are used in the play room and in the classroom. Visual schedules were used to prepare children for the play activities.

Financial: Staff felt supported with the resources they have for the program.

Supported by leadership. Learn to Play is in the school’s five-year strategic plan.

Supported by the school council as well as leadership.

The Learn to Play Program ran for two one-hour sessions every week.

Designated time for the children to engage in self-directed pretend play when arriving in the morning in each classroom using the play boxes (5 times a week for 20 minutes).

Children would rotate through the play stations for approximately 10 minutes each.

Staff all run the Learn to Play Program slightly differently, depending on the staff.

Always 4 staff members present in the play room.

Play integrates with the existing student’s goals.

Staff had been involved in running a Learn to Play Program in previous years.

Time constraints with fitting this coordination into daily time. One prep teacher is the main leader of the program and coordinates with staff.

Regular meetings between staff involved in the play program. Staff were overall proactive within this school.

Figure 9.2.1. The Model of the Dimensions of a Program: Metro Two
Constraints
Time constraints in running and coordinating the Learn to Play Program.
Lack of training for integration aides.
Challenge for staff to feel confident in the play room as staff aren’t trained in play.
Cannot explain the benefits of the Learn to Play Program with evidence (i.e. assessment).
Staff felt challenged in matching play activities to the developmental level of children.

External Environment
Staff communicated with parents via parent/teacher interviews.
Informal conversations with parents were also held.

Figure 9.2.2. The Model of the Dimensions of a Program: Metro Two
Summary of Metro Two.

The overall themes which emerged from Metro Two were that they were satisfied with the Structural and Strategic dimensions of their Learn to Play Program. The school felt supported by management and felt as though they had enough physical resources, play materials and financial support for the Learn to Play Program. The processes, activities and behaviours (Operational dimension) differed to other schools in that they ran the sessions twice a week and included self-directed pretend play at the beginning of each school day. Pretend play goals were integrated within the child’s learning goals. Constraints faced by Metro Two included the time-consuming nature of the Learn to Play Program, limited training for integration aides and difficulty matching play activities to the developmental levels of children. Metro Two did not have a lot of involvement from parents but did communicate regarding the Learn to Play Program at parent teacher interviews. The school highlighted a range of Needs including a play assessment, allocated time for staff to participate in the program, a Learn to Play committee and more training for staff. The Specific dimension (results/impacts) highlighted that staff were confident in co-playing with children and had seen changes in the children’s social skills, language and literacy. Children’s play, language, social skills, academic competence and narrative had all improved.
Constraints

Resources & Structure
Physical resources: Learn to Play was conducted in a designated play room within the school. The room is set up with play stations, and room to play. All resources are kept in the cupboard. Video modelling was used to introduce play themes.

Play materials: Satisfied with the current play materials and resources to support a Learn to Play Program. Visual schedules were used to prepare children for the play activities.

Financial: The staff felt satisfied with the resources they have in place for the program pre and post implementation.

Policies and Management Practices
Assistant principal supports the Learn to Play Program and was involved in the focus groups and questionnaires.

Play is valued within the school curriculum, however difficulties fitting in the range of programs within the curriculum.

No mention of play programs in their Student Engagement Policy.

High demand on the school curriculum, difficult to implement new programs.

Processes, Activities & Behaviours
Two sessions of the Learn to Play Program were conducted each week with two - three children for 30 minutes.

Play goals were integrated into learning goals (not separate) and play was viewed as contributing to learning goals.

Regional One had been involved in a Learn to Play Program in previous years.

Regional One do not currently assess their children pre and post Learn to Play, but expressed interest to the researcher in having more support around this so that they can be measuring the outcomes in children.

Children have a lot of programs involved in the curriculum, described by one staff.

Results/Impacts

Figure 9.3.1. The Model of the Dimensions of a Program: Regional One
Figure 9.3.2. The Model of the Dimensions of a Program: Regional One
Summary of Regional One.

The overall themes which emerged from Regional One were that they were satisfied with the Structural dimensions of their Learn to Play Program. The school felt as though they had enough physical resources, play materials and financial support for the Learn to Play Program. Although management were supportive of the Learn to Play Program, Regional Two faced challenges in their Strategic dimension in relation to the high demand on the curriculum. The processes, activities and behaviours differed to other schools in that they ran the sessions twice a week but for 30 minutes each. Pretend play goals were integrated within the child’s learning goals. Constraints faced by Regional One included the time-consuming nature of the Learn to Play Program, limited staff input and difficulty fulfilling the role of a co-player due to the fact that the one staff member was focused on facilitating the activities. The Systemic dimension of the program was strong for Regional One, as they placed a large emphasis on educating parents. The school highlighted a range of Needs including a play assessment, allocated time for staff to participate in the program, a Learn to Play committee and more training for staff. The Specific dimension (results/impacts) highlighted that staff value a Learn to Play Program within their school however require more support to make this sustainable. Children’s play, language, social skills, academic competence and narrative had all improved and staff noted the cognitive shifts in children’s abilities as well as more object substitution and symbols used in play.
Figure 9.4.1. The Model of the Dimensions of a Program: Regional Two

**Resources & Structure**
Physical resources: Regional Two implemented their Learn to Play Program in the classrooms, by including sensory motor stations with pretend play stations. Sensory motor stations were in the classroom (such as drawing, puzzles, play-doh stations) while pretend play stations were in the small room attached to the class.
Play materials: Staff identified a need to re-assess the current play materials and resources to support a Learn to Play Program, many resources are old.
Financial: The staff felt as though they could be supported with school finances to update their play resources.
Video modelling techniques were used.

**Processes, Activities & Behaviours**
A one hour Learn to Play Program was conducted each week, in the classroom. Staff reduced the pretend play to 15 minutes (instead of 45 minutes) as they found that children were more responsive to a shorter duration and would lose attention beyond 15 minutes.
Separate play goals to learning goals with one play goal for each student. Learn to Play was viewed as part of the therapy program, with feedback included in therapy reports.
Regional Two had been involved in a Learn to Play Program in previous years.
Teachers are responsible in overseeing the Learn to Play Program within their individual classes, with input from therapists and integration aides.
Set staff members working with the play program.

**Policies and Management Practices**
Play is valued in the school curriculum and has been for a number of years, however staff did not provide much information on the extent it is valued.
Some disconnect apparent between staff and management regarding the support for a play program.
Play programs to support children with complex disabilities was listed in the strategic plan.
**Constraints**

Some staff members lack investment into the Learn to Play Program compared to play based learning.
A lack of understanding in how to facilitate a Learn to Play Program by some staff members.
Staffing was difficult, high number of children compared to staff at each station.
A lack of time to implement a new program into the curriculum
An unknown level of parent support for the Learn to Play Program
Staff felt that the challenge in matching play activities to the developmental level of children was somewhere in between challenging and easy.
Staff were not comfortable in assessing a child’s pretend play skills.

**External Environment**

Staff were not sure how parents received the Learn to Play Program.
Staff did recognise that it is important to have parents understanding of the program and suggested ways to improve this such as asking for parental feedback.

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**Results/Impacts**

Regional Two valued play in childhood development, the importance of play for children with developmental delay and disability and the impact of pretend play on language, social, cognition and learning in the school environment.
Regional Two valued a play-based program in a special/SDS school setting.
Good communication between staff, and offered peer support to each other which assisted in staff being invested in the program.
Positive shifts in the children’s development were seen including imagination, object substitution, turn-taking and social interaction has improved with the children.
A need to control behaviours took over the play session for some staff.
Skills involved in Learn to Play was challenging for some staff, particularly integration aides. Not knowing when to step in and guide the play or let the children take their own lead.
A wide range of differences in skill levels between staff.
Staff are learning to observe play.
Generalisation of skills outside the Learn to Play Program into the home environment and the school yard.
Children’s play scores improved on the ChIPPA assessment.
Children’s social skills improved as measured by the raw score on the SSIS and academic competence measured by the SSIS.
Children’s language improved as measured on the CELF-4 (although not significant, changes occurred in the scores)

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*Figure 9.4.2. The Model of the Dimensions of a Program: Regional Two*
Summary of Regional Two.

The overall themes which emerged from Regional Two were that they were not satisfied with the Structural dimensions of their Learn to Play Program. The school felt as though they needed updated play materials and financial support for the Learn to Play Program. Play is valued within their school curriculum in the Strategic Dimension, however some disconnect between staff and management apparent. The processes, activities and behaviours (Operational dimension) differed from other schools in that the play program was conducted in the classroom, including limited pretend play (15 minutes) and sensory motor play (45 minutes). Pretend play goals were separate to the learning goals of the child. Constraints faced by Regional Two included the time-consuming nature of the Learn to Play Program, limited staff input and difficulty assessing pretend play. The Systemic dimension of the program showed that staff were unsure how parents viewed the Learn to Play Program. The school highlighted a range of Needs including a play assessment, allocated time for staff to participate in the program, more training and peer support amongst colleagues. The Specific dimension (results/impacts) highlighted that staff value a Learn to Play Program within their school however require more support to facilitate a Learn to Play Program, with some staff not knowing how to being a co-player. Children’s play, language, academic competence and social skills had all improved and staff had seen a generalisation of skills outside of the Learn to Play Program.
The PEOP Model

The PEOP Model was used to understand the findings in relation to the impact of ‘play’ as the primary occupation in early childhood across a group of children. The PEOP Model is a client-centred occupational therapy model which is used to describe the interactions which occur between person factors (age, gender, social skills etc.) the environment (in this study the Learn to Play program with a special/SDS schools) and how these components impact on the way an individual performs (occupational performance) different roles, activities and tasks (occupations) in their daily lives (Christiansen, Baum, Bass-Haugen, & Library, 2005; Duncan, 2011). For the children in this study, their main occupations were that of a player, student and learner within the school environment. It is important to note that the results in relation the PEOP Model will be explored in relation to the overall group findings of each school, rather than the individual factors which may or may not contribute to changes in occupational performance. This is because the individual’s specific circumstances were not explored in detail within this study as the Learn to Play Program was implemented broadly across a cohort of prep students within special and SDS school settings. The impact of play on childhood occupation was considered in order to ascertain the changes which occurred in Study Two and how these impacted on a child’s participation in their daily occupations within a school environment. Each diagram below will display the results in relation to the impact on the children’s occupational performance. This will also include occupational performance components (such as language, social skills and behaviour) which impact on a child’s overall occupational performance in their roles such as a friend, player and a student.

Figure 9.5 – 9.8 display the results of the Study Two and Three in relation to the PEOP Model for Metro One, Metro Two, Regional One and Regional Two.
Figure 9.5. The PEOP Model – Metro One

**OCCUPATION**
- Student
- Player
- Learner

**ENVIRONMENT**
(Extrinsic factors)
- The school supported the Learn to Play Program.
- School staff valued play in childhood development.
- Play integrates with the existing student’s goals to support their learning outcomes.
- Sensory motor play was included in Learn to Play sessions.
- Diverse cultural backgrounds to the demographic of the school.

**PERSON**
(Intrinsic factors)
- Age (5-7 years)
- gender
- diagnosis
- play
- social skills
- language
- narrative competence
- academic competence
- emotional regulation
- cognition
  (IQ’s below 50)

**PERFORMANCE**
- Children’s play skills have increased through participating in the Learn to Play Program.
- Children have a greater awareness for their peers, with more functional play and interaction.
- Generalisation of positive behaviour into general classroom participation.
- Children’s social skills and academic competence improved as measured by the SSIS.
The PEOP Model – Metro One.

Metro One was an SDS school, therefore the personal factors included the fact that children had an IQ below 50. This means that children within this school had low levels of pretend play skills. The Environmental factors played a large role in impacting on the occupational performance outcomes of children participating in the Learn to Play Program. The Learn to Play Program was well supported within this school in relation to play materials, management support, the value of play within the curriculum and the integration of the Learn to Play Program within the existing school structure. These factors positively impacted on the occupations of children as players, learners and students. The occupational performance outcomes included an increase in children’s play, academic competence and social skills, children have a greater awareness of their peers and more positive behaviour.
Age (5 – 7 years)
Gender
diagnosis
play
social skills

PERSON
(Intrinsic factors)

language
narrative competence
academic competence
emotional regulation
cognition (IQ’s between 50 and 70)

OCCUPATION
Student
Player
Learner

PERFORMANCE
Children have increased in their imagination, social skills, language and literacy skills. Generalisation of social skills outside of the Learn to Play Program (into the classroom and home environment) have been reported. Children’s play scores improved on the ChiPPA assessment. Children’s social skills and academic competence improved as measured by the SSIS.
Children’s language improved as measured on the CELF-4 (although not significant, changes occurred in the scores) Children’s narrative language improved as measured by the ERRNI MLU.

ENVIRONMENT
(Extrinsic factors)
The school supported the Learn to Play Program.
School staff valued play in childhood development.
Play integrates with the existing student’s goals to support their learning outcomes.

Children had access to play materials
Children participated in structured play sessions ran in a play room for 2x 1 hour sessions each week.

School staff communicated with parents about the program

Figure 9.6. The PEOP Model Metro Two
The PEOP Model – Metro Two.

Metro Two was a special school, therefore the personal factors included the fact that children had IQ’s between 50 and 70. This means that children within this school had low levels of pretend play skills. The Environmental factors played a large role in impacting on the occupational performance outcomes of children participating in the Learn to Play Program. The Learn to Play Program was well supported within this school in relation to play materials, management support, the value of play within the curriculum and the integration of the Learn to Play Program within the existing school structure. Staff communicated well with parents of children involved in the Learn to Play Program. These factors positively impacted on the occupations of children as players, learners and students. The occupational performance outcomes included an increase in children’s play, language, narrative, academic competence and social skills with the generalisation of play skills into the classroom and home environment.
Children had access to play materials.

Children participated in structured play sessions ran in a play room for 2 x 30 minute sessions each week.

ENVIRONMENT (Extrinsic factors)

High demand on the school curriculum, difficult to implement new programs.

School staff valued play in childhood development.

Play integrates with the existing student’s goals to support their learning outcomes.

A strong emphasis on the importance of educating parents about the Learn to Play Program.

OCCUPATIONAL PERFORMANCE AND PARTICIPATION as a Player, Student, Learner

PERFORMANCE

An improvement in children’s interpersonal skills, particularly problem solving as well as social skills such as sharing, turn-taking, listening, some children playing more appropriately.

Cognitive shifts noted by staff in children’s abilities, as well as use of more symbols and object substitution in play.

Children’s play scores improved on the ChIPPA assessment.

Children’s social skills and academic competence improved as measured by the SSIS.

Children’s narrative language improved as measured by the ERRNI MLU.

Children’s language improved as measured on the CELF-4 (although not significant, changes occurred in the scores).

Figure 9.7. The PEOP ModelRegional One
The PEOP Model – Regional One.

Regional One was a special school, therefore the personal factors included the fact that children had an IQ between 50 and 70. This means that children within this school had low levels of pretend play skills. The Environmental factors played a large role in impacting on the occupational performance outcomes of children participating in the Learn to Play Program. The Learn to Play Program was well supported in relation to play materials, however the busy nature of this school with high demands on the curriculum meant that one staff member ran the Learn to Play Program on her own. Staff valued the importance of educating parents regarding the Learn to Play Program. Although these environmental factors increased the demands on the Learn to Play Program, there was still positive outcomes in terms of children’s occupations as players, learners and students. The occupational performance outcomes included an increase in children’s play, language, narrative, academic competence and social skills. Staff had seen a change in children’s interpersonal skills as well as problem solving, turn-taking and sharing.
Children had access to play materials

Children participated in structured play sessions run in a play room for 1 x 1 hour session each week.

Some disconnect apparent between staff and management regarding the support for a play program.

School staff valued play in childhood development.

Staff require updated resources and a Learn to Play budget.

Separate play goals to learning goals with one play goal for each student.

Staff were not sure how parents received the Learn to Play Program.

**PERSON (Intrinsic factors)**
- language
- narrative competence
- academic competence
- emotional regulation
- cognition (IQ’s between 50 and 70)

**ENVIRONMENT (Extrinsic factors)**
- ENVIRONMENT

**PERFORMANCE**
Positive shifts in the children’s development were seen including imagination, object substitution, turn-taking and social interaction has improved with the children.

A need to control behaviours took over the play session for some staff.

Generalisation of skills outside the Learn to Play Program into the home environment and the school yard.

Children’s play scores improved on the Chippa assessment.

Children’s social skills and academic competence improved as measured by the SSIS.

Children’s language improved as measured on the CELF-4 (although not significant, changes occurred in the scores).

**OCCUPATION**

Student

Player

Learner

**OCCUPATIONAL PERFORMANCE AND PARTICIPATION as a Player, Student and Learner**

**Figure 9.8. The PEOP Model Regional Two**
The PEOP Model – Regional Two.

Regional Two was a special school, therefore the personal factors included the fact that children had an IQ between 50 and 70. This means that children within this school had low levels of pretend play skills. The Environmental factors played a large role in impacting on the occupational performance outcomes of children participating in the Learn to Play Program. The Learn to Play Program required updated play resources and a Learn to Play budget. Play goals were viewed separately to learning goals and there was some disconnect between staff and management in relation to the value of the Learn to Play Program. Although these environmental factors made in challenging to implement the Learn to Play Program, there was still positive outcomes in terms of children’s occupations as players, learners and students. The occupational performance outcomes included an increase in children’s play, language, narrative, academic competence and social skills. Generalisation of social skills was apparent in the yard and classroom as well as staff reporting a shift in children’s imagination and play.

The PEOP Model across all four schools.

As demonstrated in the PEOP Model figures (Christiansen, et al., 2005) the interaction between a child’s personal factors, environment and occupation all intertwine to impact on the occupational performance of a child’s development and learning. The ‘Person’ factors were what contributed to the interest of schools to participate in the Learn to Play Program. The child’s age, gender, diagnosis, as well as the fact that their development was delayed in the areas of play, language, social, academic and narrative competence as well as an intellectual disability meant that the Learn to Play Program was seen as a potential program to assist children in developing these critical areas of childhood development and learning.
The occupational performance of children participating in this study was positively impacted following the completion of the Learn to Play Program. With significant changes in a child’s elaborate play and object substitution, children were able to engage in more complex pretend play, building on their key childhood occupations within a school setting as a player, learner and student. With the significant changes across all areas of social skills, children were able to connect with their peers, and build on their ability to develop friendships. Academic competence significantly improved, as well as their language which impacts on their role as a student and a learner. As Learn to Play had a positive impact on narrative development, this also showed that the program can be effective in developing the roles of a student, player and learner, as seen through the changes in children’s play scores, social skills, academic competence and generalisation of skills across environments (classroom and yard) where a student’s main roles as a learner take place. It is anticipated that through these outcomes, children will be able to develop more complexity in stories, not only in play but also in their literacy development. Positive reports (through the focus groups) were noted across the schools in relation to staff observations, detailing that children were now playing with their peers more, problem-solving, engaging in sharing and turn-taking in the yard. The GEE and Cohen’s $d$ results provided evidence of the impact the program had on many areas of development including narrative, social skills, language and academic competence. These results showed the ways in which a Learn to Play Program could positively impact on a child’s occupational performance, in turn positively impacting on their roles as a student, player and a learner within the school environment. The PEOP will be integrated throughout the following discussion related to commonalities and differences across schools.
Commonalities and Differences

The commonalities and differences between schools will now be discussed in relation to Figures 9.1-9.4 (Gervais Frameworks) and Figures 9.5-9.8 (PEOP Model). These will be discussed under the Gervais Framework headings. Information will be presented similarly to Chapter Eight, however with a particular emphasis on the commonalities and differences between schools and across all three studies.

Structural Dimension

The Structural Dimension is an important component of the program evaluation as it provides information about the structure of the schools’ Learn to Play programs. Both Regional Two and Metro One had children enrolled with more severe disabilities than children at Metro Two and Regional One. Metro One is an SDS school, therefore they have children enrolled who have an IQ below 50. In order for these children to be able to participate in a Learn to Play Program, play activities needed to be based on the children’s current level and understanding of pretend play. The Learn to Play Manual (Stagnitti, 1988) includes pre-pretend play activities which Metro One often used to support the children in their program. This contributed to the differences in the way the schools structured the physical environment for play as well as the activity choices (e.g. sensory motor play at the classroom table). Children with developmental delay/disability when compared to typically developing children in a preschool environment, have shown less dramatic play, less social engagement and less ability to extend their play (Venuti et al., 2008). The way Learn to Play was structured within a special or SDS school reflected the developmental levels of the children, with SDS schools more likely to need to adapt the Learn to Play activities to be able to keep children engaged and understanding the play. This can be attributed to the fact that pretend play skills start to develop around 18 months – 2 years in typically developing children (Campbell et al., 2018). For children with an IQ below 50, many of them were not at
an 18 month – 2-year developmental level, therefore activities reflecting earlier play ability needed to be implemented within the structure of the program to maximise engagement.

In relation to the physical resources, there was consistency amongst all schools in the resources that they had. Metro Two and Regional One used a designated play room to implement their Learn to Play Program within their schools. The designated play rooms were both designed with 3-4 play stations (an area of the room for a particular play theme to be set up), as well as mat time (where children could sit and listen to the staff member) and a visual schedule outlining the activities for the play session. Visual schedules are often used for children with Developmental Delay and Disability to support their understanding of requirements at school and often in the home setting (Vaz, 2013). All schools had a good understanding of visual schedules as many of the schools used these within the Learn to Play Program. Children with Developmental Delay/Disability often understand visuals more than verbal language (Vaz, 2013), therefore the use of visual schedules in outlining expectations assist children to understand the activities.

There were differences across the schools in the spaces they used to run the Learn to Play Program. Metro One used a mixture between classroom-based play sessions (combining sensory motor and pretend play) and children attending a designated play room within their school. The staff members involved in the focus groups stated that the classroom play sessions worked well for the majority of their children with low level play skills. This allowed the children to stay within a setting they were familiar with and comfortable with and allowed the teachers to imbed play throughout their day, not only in a designated one-hour play session. Staff described the higher-level players of their group attending the play room in pairs (along with a staff member, either a speech pathologist, occupational therapist or integration aide). Staff described that this worked well for children who could cope with a transition into a new setting as they were able to focus purely on the play room. Metro One
were flexible in their structure of a play program. From another perspective, Regional Two, used the classroom only for their Learn to Play sessions as they did not have a designated play room within their school. Staff described setting up the room so that the classroom included four different sensory-motor play stations within the classroom (e.g. play-dough, puzzles, building, sand play) plus one pretend play station e.g. doctor play (in the back room of the class) where the theme would vary every 3-4 weeks. Children would then rotate through the different play stations. This set up worked for this school, as they described the mix between pretend play and a less cognitively demanding form of play (sensory-motor play) as working for their children. This allowed children to have a break following the pretend play station, which they saw as a time for children to avoid becoming too overwhelmed with the play.

One of the special schools (Metro Two) had a unique way to introduce the Learn to Play Program in that they outlined play themes for the day, through videos of staff members acting out the different play themes included in that session, prior to play commencing. For example, the teacher of a prep class was filmed playing “doctors” with the sick teddy bear. The children would see four videos (related to the four play stations). Regional One and Regional Two also used some video modelling and found this to be an effective tool in providing the children with play ideas to start with. Video modelling refers to the use of a visual technique widely used to support individuals with disabilities to learn new tasks (Alzyoudi, Sartawi, & Almuhiri, 2015). Research supports the use of video modelling in teaching social skills and other skill domains for children with disabilities, and in particular Autism Spectrum Disorder (Alzyoudi et al., 2015). Video modelling has not only been effective in teaching children with Autism social skills, but also children with intellectual disability and children with Attention Deficit Hyperactivity Disorder (ADHD) (Wilkes-Gillan, Cantrill, Parsons, Smith & Cordier, 2017). In a study on the use of video modelling to
teach social skills to children with intellectual disabilities, such as, how to greet people, video modelling was found to be effective and teachers reported that children had transferred skills across in relation to improving their social connection with peers (AvcioĞLu, 2013). Video modelling combined with social stories were effective in increasing this child’s social skills, which positively transferred into other social interactions (Litras, Moore, & Anderson, 2010). Similar positive results were demonstrated with children with a diagnosis of ADHD by Wilkes-Gillan et al. (2017) where two out of five children with ADHD improved in their social skills through the use of a video modelling technique. Within the current study in special/SDS school settings, video-modelling was an important component in a Learn to Play Program to help children understand the structure of the play sessions (e.g. what play station they were starting and ending at, where they were rotating to next, who they were playing with). This is a valuable tool in assisting children to understand the play, whilst also providing some structure to the session.

Another feature which was unique to the school (Metro Two) was the choice they provided to children as to what play station they wanted to start at, prior to the session beginning. This often helped their social interaction as “children chose a station where their friends were playing” (Metro Two). This is an important consideration of the program and one which was differentiated amongst other schools. This may also help in the development of social and friendship skills, as children can nominate who they would like to play with, forming bonds and recognising peers who they feel comfortable with. For schools who may not have adequate staffing and less than four children participating in the group (Regional One), this choice was not possible as each child played at the same station (e.g. 2 peers to one teacher) for the whole session, denying this extra social component of identifying some friends or peers that they felt comfortable with.
Play materials.

Access to play materials was highlighted as an important component of the environmental consideration of the PEOP Model. All schools were satisfied with the current play materials they had to support their play programs, except for Regional Two. Regional Two explained that their videos used for video modelling needed updating and their “play boxes need rejigging”. This will be discussed further in the ‘Needs’ of the program. The schools participating in this study had an organised system to maintain their play materials. A common theme amongst the schools was the use of ‘play boxes’ in which particular toys were organised into themes, e.g. a doctor play box, a train play box, a grocery shop play box and so on (Regional One and Metro Two). This assisted schools to organise their materials for each session without overwhelming children with too many play materials, as the staff would only gather one play box for each station. Metro Two explained that this helped staff to remain “consistent” with the play materials by keeping specific play materials together that related to a particular play scene and a variety of staff could be involved in play programs across each year level, with play materials remaining intact. This also assisted schools in keeping on track with the 10 key skills of Learn to Play. If play materials were organised, it meant that staff could focus on the key skills (e.g. object substitution) without worrying whether they had appropriate materials to do so (e.g. a shoe box to use as a dolls car).

Financial support.

It was a common theme across the schools that they felt supported with financial assistance to update and maintain their play resources, apart from one school (Regional Two). Regional Two felt as though they needed more up to date resources. If a school is limited in their play resources, they may feel as though the Learn to Play program is not valued within their school and that they cannot run it adequately. This may take away from focusing on the
10 key skills, as staff are not able to have adequate resources to run the program, whilst maintaining their confidence in supporting the development of play skills.

**Operational (Processes, Activities and Behaviours)**

All schools participating in this research had previous experience in running a Learn to Play Program within their school setting. This meant that schools had already formed a sense of how they would organise the program and how it may fit within their school systems. Some staff at all schools had attended Learn to Play training in the past (in 2012, 2013 or 2014). For one school (Regional One) they were running a Learn to Play Program in 2014, the year before this research took place. The program was well staffed and well resourced, and the play program looked similar to Metro Two, in a designated play room, with all prep students, rotating between 3-4 different play themes. The year 2015 brought challenges for this school, and the Learn to Play Program as implemented within this current study was different to the program that this school had previously run. Regional One noted that “It has been a hard year” in terms of staffing and additional programs which needed to be included in the curriculum. This school was therefore very limited with the staff input. This demonstrates the diversity of a school, and how the change in staff and prioritisation of programs can significantly impact on the way in which a program is run, for one year to the next. Metro Two were able to embed the Learn to Play Program more robustly in terms of a structured one-hour session each week. The two prep teachers, who were very pro-active about play and how it can assist with learning, decided to embed 20 minutes of free play into their classroom each morning, using the existing play boxes (where toys were organised into play themes). Children were able to choose what they wanted to play. This demonstrates that because play was valued by the two prep teachers, it became a priority within the school curriculum for children in their first year of school. The power of having motivated and engaged teachers in play significantly impacted on the way Learn to Play was run, and
viewed by management. This school also demonstrated the importance of integrating teachers with therapists, as they had a speech therapist and occupational therapist often running the Learn to Play Program alongside the teachers.

One School (Regional Two) experimented with the process of the program, reducing pretend play to 15 minutes (instead of 45 minutes) as they were finding children were “disengaging”. Staff found reducing the time for children’s engagement in pretend play was beneficial in seeing more play skills produced in a short amount of time, rather than staff having to try and control the group when children were walking away or losing attention. As discussed previously, this is one of the schools that had to alter their program to meet the needs of children with lower levels of cognitive capacity. Therefore, alongside matching the developmental level of play (including pre-pretend activities) this was another strategy to support children to maintain their engagement in the Learn to Play Program when they were not at the 18 month – 2-year developmental level. Therefore, the processes, activities and behaviours varied amongst the schools in terms of supporting children with lower IQs.

It was a common theme across schools to integrate their Learn to Play goals into the existing goals for the children within their learning plans (Metro One, Metro Two and Regional One). This is an important aspect of the environment of the PEOP as the integration of learning goals within the curriculum meant that the school environment was supportive of the Learn to Play Program. Metro One explained their reasoning behind this, starting that “...if the goals were separate, staff would just work on that specific goal...” and not integrate the goal within the students existing areas of learning. The other schools also saw the importance of integrating the goals to eliminate the play program becoming an “extra” within their already busy curriculums. This transferred over to the external environment in relation to the communication with parents. Both of these schools (Metro Two and Regional One) appeared to have good communication with the parents and were able to explain the
Learn to Play Program and its aims. By understanding how the goals were integrated into the child’s learning, staff were able to increase their confidence and competence in explaining how play links with learning, thus creating a supportive external environment of the program.

In contrast, the school which had separate Learn to Play goals (Regional Two), lacked financial support for the update of play materials, and had less communication with parents than the other three schools. This may be due to the fact that the Learn to Play Program was not well integrated into the existing curriculum, rather viewed as a separate play program.

**Strategic (Policies and Management Practices)**

The management of a program, leadership and supervision, time management, strategic planning, evaluation and monitoring (Gervais, 2010) influence whether a program is an effective and sustainable program within a school setting. This is also a critical aspect of the environment within the PEOP Model, as the management of a program can significantly impact on the occupational performance outcomes. The strategic planning within each school in this study was considered within the broader context of a school’s values, missions and curriculum guidelines. Metro One was the only school who highlighted ‘Play Therapy’ as a specific program embedded within their Early Years Curriculum on their website. The school described Play Therapy as a way to develop social skills such as sharing and turn taking, language, problem solving and motor skill development in children (School, n.d). Metro One highlighted play as the primary occupation in childhood in which children explore and make sense of their world (School, n.d). Regional Two listed play programs to support children with complex disabilities in their 2015-2018 Strategic Plan, but did not state a specific program (Regional Two School, 2015). Similarly, Metro Two highlighted wellbeing programs embedded into the school curriculum to develop social skills and socially appropriate behaviours of children attending their school within their 2013-2016 key improvement strategy, however they did not mention the Learn to Play Program specifically.
Regional One made no mention of play programs or social programs in their Student Engagement Policy (Anonymous, 2016).

The positivity from staff at Metro One reflects the statements within their strategic plan. Staff described the support they received from management as “strong”. This was also reflected through being informed of the children’s play skills to determine which class children were allocated to, for the following school year. The strong value placed on play resulted in its inclusion into the curriculum of Metro One. Metro One staff were able to adapt the Learn to Play Program to suit the needs of the children in their classes and were confident in doing this.

Within the focus group for Metro Two, staff identified that play was within the five-year strategic plan. The researcher could not find this information within the plan specifically. Staff within this school however did feel supported by management as well as the school council, “It's one of our priorities as a school. That's supported then by the school council as well”. Similarly, to Metro Two, Learn to Play was not mentioned in Regional One’s Student Engagement Policy, although the Assistant Principal supported the Learn to Play Program, and was the only Assistant Principal who attended the focus groups. The demand on the school’s existing curriculum was apparent, with staff recognising that “the kids have had a lot on their plate timetable-wise”. Play at this time was not a priority for the school, which made it challenging for staff when reflecting on the program demonstrating the lack of support from management, “I just wing it” (Regional One).

Regional Two mentioned play as a program to support children with complex disabilities in their strategic plan, but did not highlight the Learn to Play Program specifically. During the focus groups, staff from Regional Two provided the least amount of information on the support from management, stating that it has been valued for a number of years. As discussed in terms of the learning goals and integrating this within the school
curriculum, there was also a disconnect between staff and management within this school. This may be influencing the broad range of skills demonstrated by staff within this school, with some staff members being confident facilitators of the Learn to Play Program, and some staff identifying that they were out of their comfort zone with the program. These findings reflect the work of Parlar and Cansoy (2017) who found that management needs to ensure teachers feel supported, listened to and a part of the school community in order to sustain positive relationships.

**Systemic Dimension (External Environment)**

The Systemic Dimension of the framework is focused on how the Learn to Play Program interacts with its environment, including the community, other programs and organisations, and the parents/guardians of children participating in the program as the primary caregivers (Gervais, 2010). This is an important area which overlaps between the PEOP and Gervais Frameworks. The relationship that each school had with parents of children participating in Learn to Play at their school differed, depending on the levels of communication between the school, staff and parents/guardians regarding the Learn to Play Program. In a study evaluating the effectiveness of Social Skills Programs implemented in a school setting for children with Autism Spectrum Disorder, a key component to an effective program was communication with parents (Combes, Chang, Austin, & Hayes, 2016).

As highlighted by Jafarov (2015), there are a number of factors which influence the involvement of parents in a school curriculum, including the staff attitude, educational background, lack of knowledge about the school’s curriculum, time constraints, culture, lack of transportation and parenting style. When considering the relationship between schools and the parents/guardians within this study, Metro Two and Regional One had the most contact with parents/guardians of children in relation to the Learn to Play Program. Regional One used multiple forms of communication with parents, through meetings, tours through the
Learn to Play Program room, handouts and informal conversations with parents. Using various forms of communication worked the best in terms of parents understanding the Learn to Play Program and left this school feeling as though the parents had a good understanding of the Learn to Play Program, “...they knew exactly what it was for, what it did and the benefits, we haven’t any criticism”.

Similarly, Metro Two communicated with parents through informal conversations and through parent/teacher interviews. One staff member mentioned that many children get the bus to and from school each day which limits her ability to have those informal conversations with parents. Metro One and Regional Two had less communication with parents about the play program. For Metro One, this didn’t seem to hinder the program, perhaps because it was part of their school values, therefore parents understood the program on a broader level. Many children from Metro One have English as their second language, which may reduce the informal conversation opportunities between staff and parents.

Regional Two recognised the importance of having parent involvement in the Learn to Play Program so that they understand how the program was benefiting their children’s learning but did acknowledge at the time there were limited conversations between the staff and parents.

In order for a Learn to Play Program to be successfully integrated into a school curriculum, multiple forms of communication were beneficial between staff and parents/guardians, including face to face meetings, informal conversations at pick up and drop off and depending on the literacy levels, handouts and information about the program. If parents were informed about Learn to Play, they then recognised generalisation of their child’s skills, for example at home and in the playground. Metro Two heard from parents about increased social skills between a child and their siblings, “A lot of them have reported back and saying, ‘So-and-so has been playing better; playing nicer with their siblings’.”
Implementing Learn to Play based on the Needs of the Program

The needs of the Learn to Play Program are informed by the Systemic, Structural, Strategic and Operational dimensions of the program. The needs help to determine the course of action for the development of this program, and can be changing over time, which is the case from Study One to Study Three in this research (Gervais, 2010). The major need across all four schools participating in this study was in relation to accountability; a play assessment to evaluate the outcomes of children each year following participation in the Learn to Play Program. Each school identified this as a current need in order to provide an evidence base to the Learn to Play Program and how it fits within their school curriculum. “I think where do we go next? How do we take the children to the next level? Some of that is about assessment…” (Metro Two). This need fits into the Strategic Dimension of the program, as evidence will enhance the policies and management practices behind the program. If evidence is provided each year through assessing children developmentally pre and post participation in the Learn to Play Program, then this would be likely to have a flow on effect into other needs, for example, the need for a Learn to Play coordinator or committee behind the program.

Another high need amongst the schools fits into the Strategic and Operational dimensions of the program, time release for staff so that they can successfully support a Learn to Play Program with enough time for planning play sessions, communication with other staff involved in the play sessions and training to increase the understanding and knowledge of all staff involved in the play program. Time release was specifically highlighted by Metro Two who reported that finding time in the week was difficult when teachers were not released for the program. This was also an issue amongst Regional One, with the lack of support the integration aide who had run the program.
This fits closely with the need for peer support which was a common theme amongst the schools. Regional One and Metro Two explained that without the whole staff on board it is difficult for staff members to support each other. A study by Wagner and French (2010) investigated the motivation, work satisfaction and change in teaching practices among 37 teachers and 40 educational assistants across early years’ classrooms in America. Staff who had more say in the programs and policies within their schools were more intrinsically motivated to increase their professional development skills (Wagner & French, 2010). There was also a strong correlation between supervisor support and work satisfaction. Co-worker relations, which relates to the peer support method mentioned by Regional Two in this study, was an important predictor of teachers’ intrinsic motivation. When teachers saw changes in their students’ progress, they were more positive and likely to support a program implementation within their teaching practices (Wagner & French, 2010). If schools had consistent outcome measures for assessment of children’s outcomes pre and post participation in a Learn to Play Program, the motivation and support from staff would likely increase.

Regional Two highlighted peer support (or co-worker support) as a strength of their program in relation to meeting as a group to offer support around Learn to Play however there was no structure to the peer support, for example regular meetings scheduled with staff. Structuring peer support so that there was a team working on Learn to Play, with regular meetings would assist staff in developing their skills in play, and also increasing the communication between staff members, as this seemed quite disjointed at times, particularly within Regional One and Regional Two. Regular supervision sessions (once a week, as conducted in the Wagner and French 2010 study) would support staff to develop their skills, and motivation for the Learn to Play Program.
The need for more Learn to Play training (Metro Two and Regional One) was a key finding from this research. In Study One, Metro Two stated that an online training tool would be beneficial for the new staff coming into the school each year, as it was challenging keeping up with face to face training and the costs associated with this. This will be discussed further in the recommendations for a school based Learn to Play Program. Although staff did participate in a Learn to Play training run by the researcher prior to the implementation of the Learn to Play Program, further training was needed to cover in depth support of staff in developing their own personal comfort levels in being co-players with children. Being a co-player is one of the techniques within the 10 key skills of the Learn to Play Program (Stagnitti, 2016) therefore is an essential component for staff members to understand and implement in a Learn to Play Program. Metro Two and Regional Two put forward that more training would help to develop staff understanding and knowledge into play and how it can enhance child development and learning in the school curriculum.

Findings revealed that schools need more support in linking Learn to Play within their curriculum in order to support the needs of children with a range of needs. Metro One had a good understanding of play and was able to adapt the program to suit the needs of the children participating. The children in this school had lower pretend play abilities than the other schools. Further support in linking to the curriculum may assist with choosing pairs for Learn to Play (children who are at a developmentally appropriate level) and imbedding basic pretend play within their classrooms. As the teachers were quite adaptable in the way they implemented the program (e.g. classroom, play room and use of sensory motor play ideas for children with lower levels of pretend play), if new teachers were to step into this role, it could be more challenging for them to run the Learn to Play program with the diverse range of children’s needs.


Constraints

Like the Needs of the program, the Constraints of a program relate to the Structural, Strategic, Systemic and Operational dimensions of the Learn to Play Program and include the strains and issues schools faced on the implementation of the program (Gervais, 2010). The Constraints are a crucial aspect of the program evaluation in understanding how the Learn to Play Program can realistically be imbedded within existing school curriculums, and helps to define the processes required for any schools interested in embedding Learn to Play within their curriculum.

The Constraints of the Learn to Play Program were similar amongst schools participating in this research fitting into all three dimensions; the Strategic, Operational and Structural dimensions of the program. A lack of time was a consistent constraint across this study, as well as difficulty supporting children through the 10 key skills of the Learn to Play Program, especially if there was not adequate staffing of the program. For schools that had between three- five staff facilitating the program, the ability to support children in the development of their play skills was much easier.

A study conducted by Christian et al. (2015) in the United Kingdom aimed to explore factors which were essential in implementing effective school-based health interventions. The major constraints for schools implementing health interventions were academic expectations, program overload, a lack of support for staff, a lack of resources and a lack of parental support for new programs (Christian et al., 2015). These findings reflect the challenges faced by a number of schools in the current study when implementing the Learn to Play Program, including program overload (Regional One), a lack of support for staff (Metro Two, Regional One and Regional Two) and an unknown level of parental support for the Learn to Play Program among parents of Regional Two. In the study by Christian et al., (2015), teachers reported a number of recommendations which they believed could help to overcome some of
the constraints. The recommendations included planning and organising programs collaboratively; which for this present study would involve having a committee or a staff support group for Learn to Play. Collaboration between staff, the community and parents were recommended to ensure that goals were consistent between school and home, and so that parents and children felt supported by all (Christian et al., 2015). This was emphasised by Regional One as being a crucial aspect to the Learn to Play Program so that parents understood the link between play and learning. A need for expertise and training (Christian et al., 2015), was also reflected in the current study with staff verbalising a lack of the expertise to implement and run a number of programs within school settings (Metro Two and Regional Two). This has also been reflected through the difficulty with staff understanding how to be co-players with children and matching play activities with the children’s developmental play levels.

Training and the ability of staff to co-play with children significantly impacts on the implementation of the program. Although Regional One understood play well, due to the external constraints such as a lack of support for the program, the integration aide running the program was unable to co-play with children, as she was involved in keeping the group under control “We don’t do it [co-playing with children] as much as we used to when we were in our individual groups”. Despite challenges faced by staff across the two studies, staff found that the Learn to Play program was a positive addition to their school curriculums overall. School staff highlighted the need for further training and support in order to implement this program into the future, as even at the conclusion of Study Three, the overall consensus was that staff were not adequately trained to implement and run a sustainable Learn to Play Program. Staff were happy with the outcomes of the children’s development and valued the play program within their school settings.
Specific Dimension (Results and Impacts)

The Specific dimension (results/impacts) of the program are the final aspect to The Model of the Dimensions of a Program and are related to the occupational performance components of the PEOP Model. Establishing evidence based practice in special schools is crucial for the development of new programs for students with disabilities (Cook & Odom, 2013). The impact of the Learn to Play program include impacts for staff and impacts for children across Study Two and Study Three (Gervais, 2010). All four schools involved in the study valued play in childhood development for children with developmental delay and disability. All school staff participants rated highly the impact of play on a child’s language, social skills, cognition and learning in the school environment. This understanding reflects the findings of Study One, which informed the evaluation of the Learn to Play Program (Study Two and Study Three) within special and SDS school settings. In relation to staff skills in running the Learn to Play Program, results showed that all schools faced challenges in matching play activities to the developmental level of children. Staff needed to be flexible and adaptable in the way they implemented the program so that they could meet the developmental level of children. This is an important factor highlighted in the literature to an effective program implementation (Christian et al., 2015). The schools who were comfortable in assessing child’s current pretend play skills were more confident in being co-players with children, with Metro One and Metro Two having strong skills in co-playing “There’s really only one or two that require a lot of support. The ones that drift away and need bringing back....” (Metro Two) and “Babies came with us around the school. We integrated them into lessons. They became part of a day, which helped and then we honed in on that a little more during the day sessions” (Metro One). Some schools had a mix of staff skills and comfort levels in play, with some staff feeling comfortable and confident in being co-players, whilst other staff did not feel comfortable at all, “They’re [the children] are the lucky ones because
their imagination is there. We’re [adults] are the old ones being manipulated, so our innocence is lost….”. This highlights the need for staff to be supported to develop their play skills which will in turn impact on their motivation to participate in play, so that it can be viewed as an integrated program within the curriculum, not an extra program.

Children’s outcomes in Study Two reflected the value of play in child development emphasised by staff across all schools participating in this research. The outcomes for children were significant differences between children’s elaborate play, recalling sentences and social skills including (assertion, responsibility, empathy, total social skills score, problem behaviours) and significant differences in academic competence. The most significant result was the ERRNI Mean Length of Utterance in words (MLU) with the Learn to Play Program, demonstrating that children improved in the amount of words they used within their stories including the grammatical complexity, demonstrating a significant increase in narrative development. Girls were significantly stronger in their elaborative play skills than boys. The number of object substitutions used in the play assessment was significant in predicting language (measured through the CELF-4), narrative (ERRNI MLU), social skills (total SSIS score) and academic competence (measured through the SISS). Age was not a predictive factor. Elaborate play (the ability to sequence play actions logically) was also highly predictive of social skills with time being an important factor (total SISS score), narrative (ERRNI MLU) and academic competence (measured through the SSIS). Age was not a predictor. The child outcomes the staff reported in Study Three included: an increase in children’s play skills, a greater awareness children now had for their peers, with more functional play and interaction, problem solving as well as social skills such as sharing, turn-taking, listening, and some children playing more appropriately. Considering the changes in these key areas of child development, and the impact that the Learn to Play Program had directly on narrative development, these outcomes provide evidence that the
Learn to Play Program positively contributed to shifts in child development and learning for children with developmental delay and disability within a school setting. The child outcomes from this study were significant in a number of developmental areas. Children saw significant shifts in their development and learning following the completion of the Learn to Play Program. This research has demonstrated that the Learn to Play Program is a valued play-program to support the occupational performance of children in their roles as students, learners and players in a school setting and needs to be considered within future curriculum planning for special and SDS schools.

These results further build on those found by O’Connor and Stagnitti (2011) who found a significant decrease in play deficits, increases in children’s social and language skills through participating in a Learn to Play Program within a special school in Victoria. This was the only research on the Learn to Play Program within a special/SDS school.

**Conclusion**

This chapter explored the commonalities and differences in the way in which the four schools in this study implemented the Learn to Play Program, through the use of the Model of the Dimensions of a Program and the PEOP Model. These findings drew on the focus groups and questionnaires conducted in Study One (pre-implementation), Study Two, and Study Three (post-implementation) of the Learn to Play Program.

**The commonalities between schools include:**

- All schools had previous experience in running a Learn to Play Program;
- All schools valued of play in childhood development and learning;
- All schools had enough physical resources;
- Play goals were integrated with learning goals (3/4 schools);
- Play sessions ran for at least 1 hour per week (3/4 schools);
- All schools identified the need for training in a play assessment;
• Staff felt challenged in matching play activities to the developmental level of children;
• Schools required support and training on ways to be a co-player;
• All schools saw shifts in child development, including play, language, social and academic competence;
• All schools noted the generalisation of children’s improvement in play and social skills outside of the play program;
• All schools identified the need for more staff and more time within the curriculum to effectively imbed the Learn to Play Program;
• Staff motivation and peer (co-worker support) is key for the continuation of the program.

The differences include:
• Leadership support – All schools had slightly different support from leadership;
• School strategic plans – one school highlighted play therapy as a priority;
• Communication methods with parents, some schools used formal methods, some used informal.

There were more commonalities between schools in the implementation and findings of the Learn to Play Program than differences. This may be due to the fact that schools followed the guidelines and the 10 key skills to Learn to Play (outlined in Chapter Three). Analysing the information from each school has allowed for an in-depth understanding of the essential features for a sustainable program within a special and/or SDS school, which will now be discussed in Chapter Ten: Recommendations and Conclusions to the Learn to Play Program. Chapter Ten will conclude stage three of Moscoso et al. (2013) program evaluation process and present the final Model of a Dimensions of a Program and PEOP Model.
CHAPTER TEN

RECOMMENDATIONS AND CONCLUSION

The research in this thesis has been presented as Study One, Two and Three with the investigation of how school staff value play for children with developmental disability, the benefits of Learn to Play involvement for children’s development, and then the evaluation of how special and SDS schools implement a play program, Learn to Play, within their school settings. Study One investigated the views of school staff about the importance of play in childhood development and learning for children with developmental delay and disability as well as exploring staff perceptions in regards to developmental components essential for learning (language, social skills, emotional development and cognitive development). Study One was based on stage one of Moscoso et al. (2013) program evaluation to identify the needs in relation to implementing a play program within a special/SDS school. The first research question in Study One was focused on the value of play-based programs in the development and learning of children with developmental delay and disability as well as the current state of play based programs in specialist schools in Victoria, Australia. This research question was supported with all staff valuing play-based programs for children with developmental delay and disability. This research question exposed the fact that schools were unsure how to effectively implement a play-based program within an already busy school curriculum. The second research question in Study One was focused on the supports and resources that specialist schools would require to implement a play-based program. The overall themes from this research question revealed that although school staff valued play, there were challenges in school staff’s confidence in running play-based programs including challenges in following a child’s lead, being able to assess a child’s play skills and being a co-player with children whilst still managing the group. Findings revealed that staff who were
more confident in following a child’s lead and who were able to support varied play abilities, were more flexible and confident in their implementation of a play-based program.

Based on Study One, part two of the program evaluation process was conducted and involved the implementation of the Learn to Play program within four special/SDS schools in Victoria, Australia. This was based on the findings from Study One which showed that 84% of the schools were interested in implementing the Learn to Play Program. Study Two involved the implementation of the Learn to Play Program within the consenting schools. Children (participants) were assessed prior to the implementation of the program and seven months after the beginning of the program to determine any changes in the play, language, behaviour, social and emotional skills and academic competence of children participating in the Learn to Play Programs within the Special/SDS schools. Child outcomes informed the results and impacts of the program. The research questions in Study Two were focused on a summative approach to the Learn to Play Program evaluation, that is, the outcomes of the children participating in the Learn to Play Program. The first research question was focused on the changes in development of children participating in the Learn to Play Program over the seven-month period. This research question was supported, with changes seen in children’s language, social, play and academic competence. The second research question was focused on the area of a child’s development in which the Learn to Play Program had the biggest impact, it was revealed that the Learn to Play Program had the biggest impact on a child’s narrative skills. This supports the notion that Learn to Play Programs can be effective in supporting a child’s development and learning in a specialist school environment. The third and final research question for Study Two revealed that there is a connection between pretend play and a number of areas in childhood development including play, language, social skills and academic competence.
Study Three continued with stage three of Moscoso et al. (2013) program evaluation, by exploring the views of school staff on their experiences in running a Learn to Play Program as well as an analysis of policies of the school relating to play programs. The first research question in Study Three focused on ways in which the school staff implemented the Learn to Play Program within their school settings. The findings revealed that there were common themes among schools, for example all schools had prior experience in running a Learn to Play Program, all schools valued lay in child development and learning. All schools had enough play materials and play goals were largely integrated with a child’s learning goals. Staff felt challenged in matching play activities to a child’s developmental level and felt as though they required more training in the Learn to Play Program. Some of the differences include: All schools had slightly different support from leadership, school strategic plans differed in terms of the content related to play-based learning and finally the communication methods with parents, some schools used formal methods, some used informal.

The second research question highlighted that school staff still value pretend play in childhood development and learning post implementation of the Learn to Play Program. The third and final research question in this study focused on the confidence of staff in running a Learn to Play Program within their school settings, as this was an area of need identified in Study One of this research. Results revealed that there was a mix in the confidence levels of staff within the school settings however the overall consensus was that staff did not feel confident in running a Learn to Play Program with children in a group setting who have varied play skills and developmental needs. This is in terms of being able to match play activities appropriately whilst engaging as a co-player with children. Overall, the findings from this research suggest that the Learn to Play Program is a highly valuable program to enhance the development and learning of children with developmental delay and disability.
within a specialist school curriculum. The Learn to Play Program was not only valued by staff within the school settings, but the Learn to Play Program enhanced the developmental outcomes of children participating in this study. Therefore, this thesis will now present key factors for the implementation and sustainability of the Learn to Play Program on a broader scale, based on the results of this study.

This chapter will present a final Gervais Framework as the framework used for the Learn to Play Program evaluation (Figure 10.1.1 and Figure 10.1.2) followed by an integrated model of the interaction between the PEOP and Gervais Framework (Figure 10.2). This will allow readers to understand how the dimensions of a program intertwine with the occupations of a person, the environmental factors and ultimately, how the results of Learn to Play impact on a child’s occupational performance in their key roles as students, learners and players within a school environment. This chapter will then conclude with recommendations for the sustainability of a Learn to Play Program within special/SDS schools, followed by the strengths and limitations, recommendations for future research and the conclusion.
Recommendations for the sustainability of a Learn to Play Program within a Special/SDS school.

Figure 10.1.1 and Figure 10.1.2 summarise the key recommendations for the sustainability of the Learn to Play program within a special/SDS setting through the Model of the Dimensions of a Program framework. This Figure is broken into two components in order to display the Figure appropriately. This Figure will be divided into Figure 10.1.2 (the Structural, Operational and Strategic components) and Figure 10.1.2 (the Constraints, Needs, Systemic (external environment) and Specific (results and impacts) as highlighted in Table 10.1. The overall themes which emerge from the Gervais Framework in relation to the sustainability of the program over time will now be discussed. From the Structural dimension having the financial resources, space and time allocation of staff to engage and support a Learn to Play Program was essential. From an Operational point of view, children need to be assessed prior to the Learn to Play Program each year, in order to determine their developmental play level and assign children to suitable Learn to Play groups. Children need to participate in the program at least 1 hour per week, and it is recommended that Learn to Play goals are integrated with a child’s existing learning goals. Staff need to be able to match activities appropriately to children’s developmental levels and be able to engage in play. When considering the Strategic dimension schools’ principal, councils, management and teaching staff need to be supportive of the program for Learn to Play to be successful. More specifically, if schools realise that Learn to Play aligns with their vision, mission, and values, its implementation will be easier and sustained. The Specific Dimension revealed that conducting pre and post assessments of children’s play increases teaching staff’s confidence in matching developmentally appropriate play activities to children. When the Learn to Play Program is run for a minimum of once a week, positive outcomes in play, social skills, narrative competence and academic competence will likely continue for children participating
in the program. Finally, to ensure parents/guardians understand the Learn to Play Program, teaching staff will need to communicate with them regularly regarding the Learn to Play Program, its benefits and why it is being implemented within the school.

A range of Needs were determined through this program evaluation, including pre and post assessment, communication with parents, flexibility in the location of the setting, online training tools to support staff, staff enjoyment in play and staff skills in supporting the children. Teaching staff need to be supported by management and school systems in order for a Learn to Play program to be successfully imbedded. Constraints identified throughout the program evaluation include a lack of training and support for staff in the Learn to Play program, staff cannot explain the benefits of the program with evidence and the time and curriculum pressures they face within the school setting. The external environment revealed that active parental engagement is valued, with the use of photos or resources to demonstrate their child’s progress and open communication with teaching staff. This will help ensure that the Learn to Play Program is understood by parents and parents are able to understand how the program is linked with the development and learning of their child. This will allow parents to communicate with the child’s external therapists about the Learn to Play Program, broadening community understanding.
Table 10.1

*The Presentation of the Gervais Framework in Figures 10.1.1 and 10.1.2*

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Resources & Structure

Financial resources: A budget allocated to the Learn to Play Program for the development and maintenance of resources.

Learn to Play sessions conducted in either the classroom and/or a designated play room, depending on the preference of the school.

Learn to Play Programs are conducted for a minimum one hour per week formally, but play is also involved in classroom activities.

Pre and post assessment. Play boxes are used to organise toys into play themes.

Policies and Management Practices

Management Support:

- Play is written into the Strategic Plans of each school
- The Learn to Play Program is imbedded into the school curriculum
- A budget for Learn to Play is allocated to maintain resources

Staff level:

- A Learn to Play co-ordinator is allocated within each school.
- A Learn to Play team meets regularly allowing for peer support.
- Extra time is allocated within the staff workload for the development of resources (e.g. Videos) and planning of play sessions.

Processes, Activities & Behaviours

Children are placed in Learn to Play groups based on outcomes of pre-assessment in order to match children with developmentally appropriate peers.

Play goals are integrated into learning goals (not separate) and play is viewed as contributing to the child’s existing learning goals.

Children participate in the Learn to Play Program for a minimum of once a week each week.

Children participate in developmentally appropriate play activities decided by staff.

Staff are able to adapt Learn to Play sessions to suit lower developmental play levels, including sensory-motor play.

Video modelling is used as a technique to support children to understand play prior to play sessions starting, when technology is available.

Figure 10.1.1. The Model of the Dimensions of a Program: Recommended for a sustainable Learn to Play Program
Figure 10.1.2. The Model of the Dimensions of a Program: Recommended for a sustainable Learn to Play Program

Needs
- Pre and post assessment of children’s play skills using a standardised assessment such as the ChIPPA completed with each child at the beginning and end of each school year.
- The development of a questionnaire for parents to complete pre and post participation in the Learn to Play Program.
- Open communication with parents in multiple forms (e.g., education sessions, verbal and written feedback about the program).
- Flexibility with location play room vs classroom depending on the needs of the school.
- The development of an online training tool for staff to understand the Learn to Play Program and develop their skills continually.
- Staff need to enjoy participating in play, to avoid feeling as though it is hard work.
- Staff need skills in being able to implement play activities appropriate to a child’s play level, co-playing with children and following a child’s lead.
- Teaching staff need to be supported by management.

Constraints
- A lack of continuous training and support (which limits staff skills in terms of matching activities appropriate to a child’s play level, co-playing with children and following a child’s lead.
- School staff cannot explain the benefits of the Learn to Play Program with evidence (i.e., assessment).
- Time and curriculum pressures.

External Environment
- Active parent/guardian involvement in the Learn to Play Program through open communication with the teachers and staff.
- Communication between parents/guardians and external therapists regarding the Learn to Play Program.
- Photos/Resources shared with parents either online or in hard copy form demonstrating their children engaging in pretend play.

Results/Impacts
- An increase in staff confidence (through training and peer support methods) in running a Learn to Play Program.
- Staff will feel more supported as a team with management supporting the program.
- Through conducting pre and post assessments of play staff will be more confident in matching developmentally appropriate play activities to children.
- Through conducting Learn to Play for a minimum of once a week, positive outcomes in play, social skills, narrative competence and academic competence will likely continue.
- Staff and parents/guardians will have more open communication in which parents/guardians will understand the program and provide feedback to staff.
- Children will show increased ability in self-initiated pretend play which has implications for social and language and behavioural aspects of development.
Figure 10.2, highlights the relationship between the Gervais Framework and the PEOP Model. The Environment (extrinsic factors) of the PEOP are shaped by the dimensions of the Gervais Framework including the Structural, Operational, Strategic, Needs and Constraints of a program. These factors interconnect, impacting on one another to influence the Learn to Play Program. The Person (intrinsic factors) are connected to a child’s occupations as a player, friend and student. The Person and Environmental aspects come together to influence the Results/Impacts of the Learn to Play implementation. This includes the importance of a supportive school staff and school structure as well as the child outcomes following the participation in the Learn to Play Program. This directly impacts on the occupational performance of children, who after participating in this study saw an increase in play, social, language and academic competence which all impact on their occupational performance as a student, player and learner within the school environment. The outcomes of the Learn to Play Program, paired with the important environmental considerations such as supportive school staff and school structure when implementing a Learn to Play program help to shape the recommendations for the sustainability of a Learn to Play Program within a special/SDS school.
Figure 10.2. Integration between the PEOP Model and the Gervais Framework following the completion of the Learn to Play Program

- **PARTICIPATING IN A LEARN TO PLAY PROGRAM**
  - At least once a week, either in a classroom or designated play area.
  - Supportive staff with the skills in co-playing and matching developmentally appropriate play activities.

- **ENVIRONMENT (Extrinsic factors)**
  - Social support from peers (engaging in play activities with others).
  - Support from parents/guardians.
  - Support from management, including spaces to play, budget for play materials, time within the curriculum and integration of play goals within learning goals.

- **PERSON (Intrinsic factors)**
  - Age, gender, diagnosis.
  - Social skills.
  - Language.
  - Narrative competence.
  - Academic competence.
  - Emotional regulation.
  - Cognition (children with IQ below 70).

- **OCCUPATIONAL PERFORMANCE**
  - Children will be supported to enhance their development and learning through participating in a Learn to Play Program. This will increase their ability to participate in roles as a student, player and learner within the school environment.

- **RESULTS/IMPACTS**
  - Supportive school staff.
  - Supportive school structure.
  - Child outcomes.
Key Factors for the Sustainability of the Learn to Play Program with a Special or SDS school

Using assessment as an outcome measure.

School staff need to be able to conduct assessments of pretend play in order to provide evidence around the effectiveness of a Learn to Play Program within a special/SDS school setting. All schools participating in this research highlighted that they would like to use an outcome measure to support the changes they saw with the children participating in the Learn to Play Program. Evidence of positive outcomes of the program would be more likely to mean that management is supportive of a Learn to Play Program, having a roll-on effect in allowing time within the curriculum, supporting the Learn to Play Program within a budget for play materials, allowing a coordinator of the program and adequate levels of staff within the Learn to Play Program. The Department of Education and Training (2016) states that a specialist school must make modifications to curriculum and programs to support children with disabilities to reach their full potential. The Learn to Play Program could be considered as an appropriate program to support children with additional needs in reaching this potential. It is important to consider the types of assessment tools which would be appropriate to assess children with developmental delay and disability in a special/SDS school setting. The assessment tools used in Study Two were all standardised and normative assessments, including the ChIPPA, CELF-4, ERRNI, SDQ and the SSIS. Standardised assessments are assessment tools which are delivered in exactly the same way, using the same materials with the same set of instructions for all people participating in the assessment (de Clive-Lowe, 1996). Normative assessment tools are those which compare a child’s raw scores to a group of same aged children and provide a spread of scores in which statistical interpretations can be made (de Clive-Lowe, 1996). Normative standardisation allows for the hypothesis that a particular condition (or in this case a program) produced results which
changed or stayed the same (de Clive-Lowe, 1996). When investigating the importance of various types of assessment in children, an Australian study by Rosenberg, Bart, Ratzon and Jarus (2013) analysed the importance of both parents and therapists contributing to the assessment process, using standardised assessment tools (completed by the therapists) as well reports from parent’s into their perceptions of the child’s ability to participate in everyday activities (Rosenberg et al., 2013). The study found that standardised assessment alone does not provide enough information about children’s capabilities therefore a collaborative approach is needed between therapists and parents (Rosenberg et al., 2013). The current study gathered data on child outcomes through standardised assessment by the teachers and researchers, as well as focus groups with school staff.

It is recommended that the standardised play assessment such as the Child-Initiated Pretend Play Assessment (Stagnitti, 2007), is completed with children pre and post participation in the Learn to Play Program each year (start of Term 1 and the end of Term 4) so that children’s outcomes can be evaluated. The ChIPPA provides normative information so that a child’s elaborate play skills can be assessed, with elaborate play being a significant area of improvement for the children in Study Two. Metro One currently uses the Symbolic Imaginative Developmental Play Checklist (SIP-DC) (Stagnitti, 1998) at the beginning of each school year to establish the baseline play skills for children going into the Learn to Play Program. Metro One staff highlighted the need for them to also administer the checklist (which can be completed by staff and parents) at the end of the school year to evaluate the outcomes of children post participation in the Learn to Play Program. Although the SIP-DC is not standardised and has been surpassed by the Pretend Play Enjoymen Developmental Checklist (Stagnitti, 2017), it still provides information on a child’s developmental level of pretend play. Children with developmental delay and/or disability often have therapists (such as speech pathologists, occupational therapists and psychologists) working with them and
their families outside of school hours. It is important that those therapists are aware of the
children’s play skills so that they can tailor interventions to suit the individual’s needs. It is
also recommended that therapists collaborate with staff to work together in the assessment
and design of play-based interventions.

**Parent/guardian education throughout the program.**

A collaborative approach between schools and parents is most beneficial in
supporting academic achievement among children (Fan & Chen, 2001; Hoover-Dempsey,
Bassler & Brissie, 1992; Yamamoto, Holloway, & Suzuki, 2016) and this was supported
throughout this study. Hoover-Dempsey et al. (1992) studied parent efficacy (the belief that a
person can achieve their own desired outcomes) in relation to involvement in school-based
activities. Parent efficacy was significantly related to the time parents spent volunteering in
the classroom and involvement in their child’s educational activities (e.g. involvement in
homework) (Hoover-Dempsey et al., 1992). Teacher efficacy was also related to positive
relationships with parents, with teachers who had higher teaching efficacy more involved
with parents, having more conversations with parents and including parents in the curriculum
(Hoover-Dempsey et al., 1992). Hoover-Dempsey et al. (1992) results were also reflected
through a recent study completed by Yamamoto et al. (2016) which found that parent
efficacy and parental role construction (what parents believed to be important in education)
were linked with parental involvement. Interestingly, Yamamoto et al. (2016) also found that
teacher invitations to mother’s led to mother’s being more involved in the classroom,
initiating discussions with teachers and feeling more included within the school. Multiple
forms of communication with parents was limited in this study, for example there was only
one school who communicated regularly and used both formal (written documents) and
informal (discussions after school) with the parents. Parents who are informed about the
Learn to Play Program can contribute to its sustainability within a school setting, because if
they are accepting and aware of the programs that their children are participating in throughout the day, they will have a higher parent efficacy in relation to their child’s education (Hoover-Dempsey et al., 1992).

The development of a Learn to Play resource where parents could see photos and/or videos from Learn to Play sessions would also assist in increasing parental understanding about the Learn to Play Program. This could take the form of an online tool (where parents log in) or the form of a photo book that gets sent home with the student reports. This study demonstrated that school’s need to be creative and think outside the box in terms of communicating with parents regarding the Learn to Play Program. Schools are becoming savvy with technology, and a lot of parents can now access their children’s work, tasks and information from school online. This could be a way that the Learn to Play Program is also shared with the parents.

**Valued by management, supported by staff.**

Learn to Play Programs need to be integrated within the school curriculum for the Structural, Operational and Strategic components of the program to be integrated and effective. The Learn to Play Program worked best when it was integrated into the school’s curriculum and not viewed as a separate program. This allows staff to feel supported by management and for the program to fit well within the existing school structure.

A collaborative approach between staff and management, as seen in Metro Two, demonstrated the ability to integrate the Learn to Play Program into their everyday classrooms (not only during a designated play time) through children entering the classrooms in the morning and engaging in pretend play for twenty minutes prior to starting their morning session. Regional One was an example when collaboration between management and staff broke down and the program was left to one staff member alone the program was not valued. Although the Learn to Play Program was valued by the Assistant Principal at
Regional One, it was difficult for the support to be maintained as the Learn to Play Program was replaced with other curriculum activities which the school took on board.

Time was a constraint when implementing a Learn to Play Program with the busy nature of a school environment. In order for the Learn to Play Program to be effective, staff needed to be assigned time within their allocations to work on resource development (for example, filming videos of staff playing to use as video modelling prior to the play session), setting up sessions (whether in the play room or adapting the classroom), coordinating the sessions with staff members involved. If staff were provided with more time for Learn to Play, they would be able to integrate Learn to Play goals with the children’s existing learning goals. The need for a budget for Learn to Play was highlighted through this study, in order to update resources and maintain the program. If staff are provided with up to date resources and play materials, they will be able to focus on the 10 key skills of Learn to Play, without spending time on whether they have appropriate materials to conduct the sessions. If the Learn to Play program is supported by a budget, (whether large or small), staff will be more inclined to feel supported by management in that the Learn to Play Program is a valued part of the curriculum.

Training for staff.

When considering the results from all three studies, school staff required greater training and understanding of the principals of the Learn to Play Program, not only for the sustainability of the program, but for their own confidence and skill development. This could be through additional Professional Development each year, as well as setting up a Learn to Play Committee (or support group) as recommended by Metro Two and Regional Two. Regional One highlighted the need for a “Learn to Play Co-ordinator” who would take charge of the implementation of the program within a school and have time release to work on developing, implementing and maintaining the Learn to Play Program within their school.
setting. The Learn to Play Co-ordinator would be in charge of organising regular peer support/supervision groups for staff members working in the Learn to Play Program. Peer support groups have been found to benefit teachers, reducing professional isolation and providing teachers with a chance to engage in collaborative problem solving within their school systems (Bedward & Daniels, 2005). The opportunity to engage in peer support methods allows teachers to develop their professional skills and engage in reflective practice (Bedward & Daniels, 2005). During the peer support/supervision groups staff could discuss any concerns they have, further areas of development and share ideas around how to target children’s play skills appropriately. This would also offer a line of support for staff who are having difficulty supporting the varied levels of play skills amongst the children.

Online professional development training for school staff was a finding from the focus group data and is well considered within the literature as an appropriate method of staff development (Caena, 2014; McMurray, O'Neill, & Thompson, 2016).

Caena (2014) highlights two important factors to professional development among educators, 1. Psychological factors (motivation, cognitive levels) and 2. Organisational factors (collaboration, leadership support, opportunities, communication). Both have a significant impact on the professional development of staff. A study conducted in Special Education schools in Ireland revealed that the most effective professional development tools were run by their own school due to its cost-effective nature (McMurray et al. 2016). This is also supported by Caena (2014), with other important elements to professional development including being hands on in nature, involving active participation, collaboration with other staff and focused on specific content (not general). Caena (2014) also highlighted the important need for staff to work together to develop their skills in order for the whole school to improve.
The need for a professional development tool to be created in Learn to Play Programs within special/SDS school settings was a key finding for sustainability of the program. This could be in the form of an online professional development tool developed by the individual school (reflecting the cost-effective nature determined by McMurray et al., 2011). In order to support staff collaboration, the online training tool could be developed by a range of staff members (integration aides, teachers and therapists) involved in the Learn to Play Program. This resource could then be shared with any new staff members or staff members needing to upskill in the Learn to Play Program. In line with the research finding that specific content (rather than general) works best (Caena, 2014), the online training tool could cover a range of Learn to Play Program specific topics including:

- The 10 key Learn to Play key skills essential for the program;
- How to be a co-player with children and encourage child-led play ideas;
- Tips to educate parents/guardians around the link between play and learning;
- Following a child’s lead in play whilst also managing a group of children;
- Choosing appropriate play activities to match a range of developmental play levels;
- Assessment of play.

It was found that the Learn to Play Program is adaptable and dynamic, and the way that it is implemented in each school did vary, depending on the level of the children, as well as the school structure and systems. Metro One demonstrated this adaptability well, being the school with children who had the lowest level IQ’s and often the most complex disabilities. In order for children to participate in the Learn to Play Program, there is a requirement to be 18 months old developmentally with some communication (e.g. verbal or non-verbal, pointing, gazing, smiling). Therefore, for some children they will not be ready developmentally for the Learn to Play Program. For SDS schools who have children with IQ levels below 50, they need to be able to adapt the Learn to Play Program to include sensory-
motor and pre-pretend play activities. Metro One were able to adapt the Learn to Play Program to include elements of pretend play (e.g. with a theme around babies) whilst also including sensory motor play (e.g. spinning the babies in a dish). Metro One understood the complexities of the children they were working with, and adapted the program to suit the needs of the children. Metro One did have a play room, which they used for children who were developmentally ready for Learn to Play. Children would often attend in pairs, or small groups. This is a recommendation for schools who are working with a range of developmental levels so that the program can be tailored to support a range of play abilities. Offering choice to children around the play stations/activities they would like to engage in was also another method that worked well in one particular school in this study (Metro Two). This may assist in developing friendship skills, and the ability for children with developmental delay and disability to feel comfortable playing with their peers. Metro Two did note changes seen in the yard with children participating in more interactions with peers, therefore this would be recommended for future Learn to Play Programs, and also to be imbedded within training programs.

Adaptability and sustainability across different settings.

This program evaluation demonstrated that in order for a Learn to Play Program to be effective within a special/SDS school setting, staff needed to be flexible in the way that they implement the play program. A Learn to Play Program will be implemented in SDS schools differently to a Special school. For Special Schools who have children with an IQ between 50 and 70, they still need to be able to adapt the Learn to Play Program to suit their differing schools. They need to be adaptable in the spaces they use (if a play room is unavailable then using the classroom to run their sessions), the choice of play activities (including sensory-motor and pre-pretend play when necessary), adapting their timetable to implement a Learn to Play Program and having well trained and motivated staff to participate in play. Staff need
to be able to think on their feet and create play ideas based on the actions, behaviours and 
emotions of children participating in the group. Staff need to be able to read the body 
language of children, modelling play actions when necessary but also balancing this with 
allowing the child to take the lead, therefore being adaptable. Schools can be supported in 
developing this flexibility through the use of the online training tool and professional 
development based on the Learn to Play Program, annually, in order to ensure that new staff 
members have relevant training in the Learn to Play Program.

Future Research

Children with developmental delay and disability are more likely to have delays in 
pretend play than their typically developing peers (Barton, 2005; Casby, 2003). Due to the 
significant changes in children’s development highlighted in Study Two and Study Three, 
particularly the positive changes in the social skills and the impact of the Learn to Play 
Program on a child’s narrative skills, it is recommended that future studies are completed 
with the children participating in this study to observe their later friendship skills and assess 
their narrative development over time. As there is limited research into play-based 
curriculums in special and SDS schools for children with developmental delay and disability, 
it is recommended that further research continues in order to provide appropriate curriculums 
to support children in their development and learning throughout primary school. It is 
recommended that future research is conducted on Learn to Play programs within special and 
SDS schools, in order to generalise the results found in this study to a wider population of 
children with developmental delay and/or disability to support children with low cognitive 
skills, limited language, poor play and limited social skills with a curriculum to support their 
development and learning. It is recommended that in the future parents complete the Pretend 
Play Enjoyment Developmental Checklist (PPEDC) parent checklist (Stagnitti, 2017) at
home prior to participating in the Learn to Play Program. This will aide staff in having an understanding of a child’s baseline pretend play skills, so that they can design appropriate Learn to Play activities to suit the level of the child. This could also be completed post participation in a Learn to Play Program in order to gain parental perspectives on the outcome of the program on a child’s development, within the home environment. This would also allow parents to feel more involved in the Learn to Play Program, as highlighted throughout this thesis as an important component to the program’s sustainability.

Conclusion

This research has presented a unique methodological approach that encompasses multiple research paradigms (quantitative and qualitative approaches), varying methods of data collection (focus groups, questionnaires, assessments), and an extensive program evaluation. This unique methodology ensured that all areas of the research could be addressed, with exploration of participant (school staff) experiences and values in the Learn to Play Program across specialist school settings. The quantitative analysis allowed for the outcomes of the program to be directly related to the changes in children’s development and learning as assessed pre and post the implementation of the Learn to Play Program. This allowed a client centred perspective to be achieved, which takes into account a person’s environment, occupation and occupational performance (aligning with the PEOP Model). This research revealed a number of key findings which will support the Learn to Play Program to be a sustainable and effective program integrated into specialist school settings for children with developmental delay and disability.

A key finding in this research was that schools were flexible in the way they implemented a play program within their particular school setting in terms of location of play, timetabling, structure, duration and the ability to design play activities to suit the level of the children they are working with at a particular time (e.g. adapting pretend play and pre-
pretend sensory motor activities). In order for staff to be able to do this, they require professional development to understand pretend play and how to adapt pretend play to suit varying levels of children’s skills. All schools highlighted the need for further training which could be conducted through the development of an online training tool and professional development training sessions each year on the Learn to Play Program.

Overall, this research has positively contributed to the research around Learn to Play programs within a special/SDS school setting for children with developmental delay and disability and has implications in the field of specialist school education.

Prior to this research, there was only one study on the Learn to Play Program within special/SDS schools (O’Connor & Stagnitti, 2011; Stagnitti, O’Connor & Sheppard, 2012). In this control comparison study, positive outcomes in social skills, behaviour and play development were found for the children in the Learn to Play group (O’Connor & Stagnitti, 2011). Therefore, it was essential to build on this knowledge in terms of implementing a program to support children with low cognitive skills, limited language, poor play and limited social skills in order to provide a play-based program which can enhance these developmental components. This study has explored the value, challenges and recommendations for the sustainability of a Learn to Play Program to enhance a child’s development and learning in a special/SDS school setting.

The outcomes of children’s development after completing the Learn to Play Program holds significant importance to the ways in which the Learn to Play Program can be integrated into a special/SDS school setting. The variation in the children’s IQ between special and SDS schools demonstrated that the Learn to Play Program can be effective in supporting children with a mild, moderate and severe intellectual disability. In order for a Learn to Play Program to be successfully integrated into a curriculum, staff need to have adequate training, confidence and the ability to think on their feet to support children in
developing their play and social skills. For the program to be sustainable within a curriculum, it needs to be recognised as contributing positively to the existing learning opportunities, not as something extra. The Learn to Play Program needs to be adapted to suit the needs of an individual school in terms of location of play program, time, number of sessions per week and the number of children within each play group.

In order for the multiple variables to be managed within the program, there needs to be a Learn to Play co-ordinator or team who can support the program. If a school’s management system is supportive of the Learn to Play Program in relation to a budget, timetabling, staff release and policies and values, then the program is likely to be successfully integrated into a special or SDS school setting. The changes in children’s development and learning through participating in the Learn to Play Program were significant and independent of age and supported by focus group data from the staff. This study has found that the Learn to Play Program can be sustainably implemented within specialist school curriculums and have positive child outcomes on children’s development and learning. The outcomes from this program evaluation have demonstrated, in a specific sample, that Learn to Play leads to improvement in areas of children’s function and performance that will support development and growth. Results of this research support including the Learn to Play Program in the specialist school curriculum.
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