Stress is an inevitable part of life and children will invariably feel the impact of stress on their lives. Teaching children how to cope with stress in ways that are appropriate to their level of development, and aimed at the kinds of stressors they may face, is an important function of our society. Research with adolescents and adults indicates that those with better coping skills are more able to deal with life's challenges in an adaptive manner (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Moreland & Dumas, 2008). Our coping repertoire increases with age, therefore a focus on coping is a logical component of early learning or intervention programs. However, there is surprisingly little research on early childhood and coping to guide program development in this area. The research that does exist is either based on adolescent and adult studies extended downwards to include children (e.g., Altshuler & Ruble, 1989; Band & Weisz, 1988; Eisenberg, Fabes, & Losoya, 1997; Folkman, 1984) or supplemented by studies on children's social–emotional competence (e.g., Denham & Grout, 1993; Denham et al., 2003; Eisenberg & Fabes, 1992; Kopp, 1989). Coping is a dynamic phenomenon in which the regulation of internal and external demands of a situation is important.

The purpose of this study is to understand the coping strategies of 4-year-old children in order to guide the development of a social–emotional component of the preschool curriculum and enable early intervention following the identification of social–emotional difficulties. This research provides the language used by 4-year-olds to describe their coping, and also benchmarks the coping that these children are capable of in situations that are relevant to them.

Coping Research in Young Children

Two major review articles summarise the research on coping in young children. The first is a review by Fields and Prinz (1997) that focuses on coping and adjustment of children and adolescents. In the review of eight studies on children’s coping strategies they found that most of the studies into childhood coping focused on medical procedures and academic stressors. Of the eight studies, four studies focused on social stressors and indicated that children rely more heavily on problem-focused strategies than emotion-focused strategies. Five studies compared young children’s coping strategies (ages 3–7) with those of older children (ages 8–12). These studies indicated that with age, problem-focused strategies declined and emotion-focused or cognitive coping strategies increased. They also found...
that the concept of coping is tied to specific stressors or challenges; however, they found little differentiation between strategies used and specific situations in young children. This review illustrates how children and adults perceive and manage stressors differently, pointing out that what is discovered about adult coping does not automatically extrapolate to younger populations.

The second is the review article by Compas, Connor-Smith, Saltzman, Thomsen and Wadsworth (2001) that highlighted the problematic nature of research involving child and adolescent coping. The study, which summarised and evaluated over 60 previously published studies on coping with stress during childhood and adolescence, found that there was no consensus on the coping dimensions across studies. This is due to the ‘lack of clarity and consensus in conceptualising coping’, which has led to ‘difficulties comparing findings across studies and difficulties in documenting fundamental differences in coping as a function of age, gender and other individual-difference factors’ (p. 88).

Coping and Emotion Regulation
Coping is aimed at regulating an emotional arousal and the act of coping is aimed at regulating one’s internal emotional experience, regulating one’s behaviour in response to the stressor and finally the regulation of the source of emotional arousal (Losoya, Eisenberg, & Fabes, 1998). Emotion regulation begins at the age of about 2, and by age 4 children are able to understand what they think, believe and desire affects how they behave (Flavell, 1999). By the age of 4 to 5, children are correctly able to judge the reason for emotions, although at preschool age they still tend to attribute the cause to external factors, rather than internal states (Levine, 1995). A child might say, for example, that he is sad because he misses his mum and will only later start to realise that internal desires and beliefs can trigger emotion (Berk, 2006). Children are able to demonstrate regulation of their own emotions by changing strategies; for example, by turning attention to another game when being excluded from a game, talking to themselves (e.g., ‘mum will be back soon’), or blocking out unpleasant stimulus by, for example, looking away (Berk, 2006). Preschoolers can also demonstrate emotional knowledge of others by being able to predict what a playmate showing a certain type of emotion will do. Four-year olds know, for example, that an angry child is more likely to hit someone and a happy child is more likely to share (Russell, 1990).

Coping and Cognitive Appraisal
Coping is more than just self-regulation. When confronted with stress, individuals do not simply instantaneously respond, they cognitively appraise the situation and then attempt to deal with it (Compas, 2009). Cognitive appraisal refers to an individual’s evaluation of a situation and the individual’s assessment as to the importance of the situation in terms of his or her wellbeing (Frydenberg, 2008). In summary, a great deal of information can be gleaned from self-regulation and adolescent and adult coping literature; however, there is a paucity of research on the coping strategies of young children.

Method
Semistructured interviews were conducted with a group of 4-year-olds (N = 46), using visual images that depicted seven age-appropriate challenging situations, in order to capture the full range of coping strategies described by preschoolers and the frequency of use of these different coping strategies across the situations.

Participants
A cohort of children at Melbourne University’s Early Learning Centre (ELC) participated in the study. Of the 80 students invited, 46 children participated, comprising 54% females and (n = 25) and 46% males (n = 21). The ELC is an early childhood facility attached to the Melbourne Graduate School of Education. It offers long-day preschool programs to preschoolers from surrounding communities and the university, whose background is mainly Anglo-Australian (approx. 70%) with the remaining 30% of families from overseas countries. All the children are English-speaking. The participants could be deemed as a convenience sample.

Child Interviews
Interviews are one of the most widely used methods of data collection in qualitative research (Greig, Taylor, & MacKay, 2007; Smith, Taylor, & Gollop, 2000; Willig, 2001). When children’s views are sought, it is best to source the information directly from them (Scheurich, 1995). The interviews were 5 to 10 minutes in duration and semistructured in nature. The questions were complemented with professionally drawn situational cards in order to ensure clarity of content. The cards were based on common fearful or challenging situations, such as the fear of separation, the dark, being teased, fear of negative evaluation by an adult and feeling excluded (Fields & Prinz, 1997; Sorin, 2005). The final seven situational cards used in the interview were called: (1) Separation from parent, (2) Friendship, (3) Don’t like something, (4) Relationship with teacher, (5) Teasing, (6) Night fears and (7) Making a choice.

Procedure
Following approval from the University Ethics Committee and obtaining parental consent, the children were then approached to participate. There has been much discussion in the literature about the importance of the child’s assent as a necessary part of the research, not just from an ethical perspective (Farrell, 2005; Greig et al., 2007) but also as a way of engaging the child in the research process (Smith et al., 2000). The child consent form, which depicted the interviewer and an example situation, was
handed out in class and explained to the children. They were then asked ‘would you like to talk to the interviewer?’ The children were asked to cross the ‘Yes’ box if they were happy to participate or cross the ‘No’ if they did not want to participate and sign by writing their names or drawing a picture in a space provided at the bottom of the page. The right to withdraw was also observed and in one case it was necessary to terminate the interview midway when it became apparent the child did not wish to continue.

Children were shown one card at a time and asked the following four open-ended questions for each: (1) ‘What do you see in this picture?’ (2) ‘Has this ever happened to you?’ If yes, then (3a) ‘How did you feel when this happened to you?’ and if no, then (3b), ‘How do you think this person would feel in this situation?’ If the child showed a negative emotion then question (4a) ‘What would you do to make yourself feel better?’ or (4b) ‘What would you say to this person to make themselves feel better?’ was asked. To avoid a question/answer format from arising that could hinder spontaneous expression (Erdman & Lampe, 1996), paraphrasing and reflection such as ‘Mmm’ and ‘Yeah’ were used to keep the tone natural, informal and encourage elaboration.

To ensure face validity, the interview questions were reviewed by a research colleague who was familiar with the target audience and the aims of the research. In order to ensure that the interview agenda was relevant and appropriate, pilot interviews (n = 4) were conducted prior to the formal interview process commencing. The pilot interviews confirmed that the children were able to understand and describe what was happening in the situational cards, that the questions were clear and unambiguous and that the children were able to answer them without prompting.

**Data Coding and Analysis**

A mixed-method approach consisting of both quantitative and qualitative components was utilised in the study (Tashakkori & Teddlie, 2003). The analytical process started by transforming the qualitative data into numerical scores. Thematic analysis was used to encode the interviews, using four stages of analysis (Aronson, 1994; Boyatzis, 1998). The first step was the collection and identification of patterns in the raw data. To achieve this, the researcher transcribed the recorded interviews into separate documents and developed a list of all the possible coping strategies based on words or phrases in each of the interviews. The researcher then organised all the coping responses based on each of the identified main coping strategies to ensure all the responses were taken into account. For example, phrases with similar meaning, such as ‘I just play’ and ‘I go away and play somewhere’ were placed under the general term ‘play’ whereas ‘get a cuddle from mum’ and ‘hold my teacher’s hand’ was defined as ‘support-seeking’. This list was compared to the list of coping codes generated from a previous study (Deans, Frydenberg, & Tsuratani, 2010) to form a total of 15 potential coping strategies namely, Play/do something else, Work to solve the problem, Do nothing/don’t know what to do, Seek comfort, Think positive, Cry/can’t feel better, Ignore the problem, Seek help, Complain of illness, Blame others, Calm down, Tantrum, Talk about it, Keep feelings to self and Get angry with self.

The next step was the application of themes to the data in a consistent manner (Aronson, 1994; Boyatzis, 1998). To do this, the researcher transferred all the interview responses into one spreadsheet with the interviewees listed down the side, the interview questions listed along the top and the interview comments in each of the cells (Patton, 2002). A column adjacent to each comment was added and the researcher then noted the applicable coping strategy to each of the statements made. To ensure the process was rigorous, the research colleague who was familiar with the study applied the list of codes developed in the pilot study independently to the interview responses. The interrater reliability was calculated using the following formula: number of agreement/(number of disagreements plus agreements) x 100 (Nabors, Reynolds, & Weist, 2000). This resulted in 74% agreement between raters. Further examination of the codes led to the combination or grouping of similar coded data and the deletion of some codes originating from the earlier study (Deans, Frydenberg, & Tsuratani, 2010). The final list of coping strategies were: Seek comfort, Play/do something else, Solve the problem, Think positive, Calm down, Ignore the problem, Seek help, Do nothing/don’t know, Cry/Can’t feel better and Get angry. The coping strategies were coded and then entered into the SPSS Version 17.0 for Windows software package, in order to run the quantitative component of the analysis.

The final stage was the clustering of codes into overarching themes (Aronson, 1994; Boyatzis, 1998). Hierarchical cluster analysis was chosen as the empirical clustering method due to its usefulness in identifying homogenous subtypes within a dataset (Borgen & Barnett, 1987) and its ability to cope with binary data. The data was converted into binary data by developing a new spreadsheet that listed the individuals vertically down the spreadsheet and the ten coping strategies horizontally across the top. For each participant a ‘yes’ or ‘no’ answer was specified for each of the strategies, indicating the presence or absence of the strategy across the seven situations. Yes answers were coded as 1 and no answers as 2 and the data were entered into SPSS Version 17.0 in which a hierarchical cluster analysis was conducted. Coping strategies were later grouped conceptually into productive and nonproductive coping styles to reflect the dichotomous nature of coping.

Descriptive statistics were used to determine frequency of the productive and nonproductive coping styles used by the participants and to ascertain the frequency of use of the coping strategies across the seven situations.
Results
Preschooler’s Coping Repertoire
Data for this study was organised according to the conceptual grouping of strategies based on coping theory. Coping strategies were grouped into productive and nonproductive coping styles to reflect the dichotomous nature of coping. Play/Do something else, Solve the problem, Think positive, Calm down, Ignore the problem, and Seek help were re-coded as productive coping strategies and Do nothing/don’t know, Cry/Can’t feel better and Get angry as nonproductive coping. Seek comfort was categorised as both productive and nonproductive as it was deemed by both raters as reflecting helpful adaptation in some situations, such as fear of the dark, but unhelpful in situations where a child was unwilling to part with their ‘comfort object’ in the preschool setting. The thematically clustered coping strategies are presented in Table 1.

The productive and nonproductive coping categorisation provided an overview of the number of productive and nonproductive skills these children were using to cope in a variety of circumstances.

In total, 268 coping responses across the seven situations were reported by 46 participants. Eleven per cent (n = 5) of the participants used three or less productive coping strategies across the seven situations, 13% (n = 6) used four, 41% (n = 19) used five and 33% (n = 15) used six. This indicated that the majority of children (n = 34, 74%) had a repertoire of productive coping skills they could apply to at least five or six different situations. Only one child used seven productive coping strategies to manage all seven situations. This child also had a number of different strategies rather than repeating the same strategy in each situation, using Play/does something else, Solving the problem or Ignoring the problem to deal with each challenge.

The majority of children (n = 35, 76%) used one or less nonproductive coping skill in the seven situations. The remaining children (24%) used a maximum of three nonproductive coping strategies. Interestingly, the nonproductive skills were to Do nothing, or Not know what to do and only one of them indicated an Angry outburst, which meant that they in fact lacked coping resources.

Preschoolers’ Situation-Specific Coping
The next phase of quantitative analysis focused on the examination of the ten coping strategies in relation to each of the seven situations. Descriptive analyses were used to ascertain the frequency of use of the coping strategies across the seven situations and the results are presented in Table 2.

From Table 2 it can be seen that in the ‘Separation from Parent’ scenario, which depicts a mother waving goodbye to her child, four participants (9%) expressed sadness at separating from their parent. They dealt with this in a
variety of ways, one distracted themselves by playing, two made themselves feel better by seeking comfort by either complaining of illness or indicating the use of pull-ups (toilet training pants) and the fourth did not know what to do.

All 46 participants had strategies to deal with 'Friendships', a situational card that centres on a child being left out of a game. This situation made the children feel sad or lonely when left out of a game. A total of seven coping strategies were reported of which 'solve the problem' was used in the majority of cases \((n = 22, 48\%)\). The children would work to solve the problem by engaging the pair in conversation and inviting themselves into the game. The other popular option was to Play/do something else \((n = 11, 24\%)\). Children reported that joining another game or playing by themselves would make them feel better. The other productive coping strategies were Seek help \((n = 3, 7\%)\) by asking a parent or teacher to intervene or Seeking comfort \((n = 2, 4\%)\) from a favourite toy or getting a cuddle from a teacher. Only one person used Thinking positive, telling themselves to 'cheer up' and move to another game and another child chose to ignore them, but this child did indicate that the feeling of sadness did not go away. The only nonproductive coping skill used frequently was Do nothing/don’t know, which was used in 13% of cases \((n = 6)\).

The 'Making a Choice' scenario, which depicts a child in the centre trying to decide between two activities, seemed relatively straightforward for the children to resolve. Interestingly, the children did not feel any negative affect in making a choice between two alternatives and most of them \((n = 30, 65\%)\) simply Solve the problem by deciding which game to play first. It is possible that even after the researcher explained the card, this scenario was not clear to the participants as the rest simply replied that they would Play \((n = 10, 22\%)\) or Do nothing/Don’t know \((n = 4, 9\%)\). Two children did not respond to this situation.

The 'Teacher' scenario, on the other hand, which depicts a teacher telling a student off, elicited the largest number \((n = 11, 24\%)\) of Ignoring the problem, by climbing under the doona, blocking ears or looking away. A large number of children \((n = 8, 17\%)\) would close the blind, shine a torch or switch the lights on to Solve the problem. These three strategies represented 74% of the cases. Other strategies included Seeking help \((n = 5, 11\%)\), Crying \((n = 2, 4\%)\) or Think positively \((n = 4, 9\%)\), by telling themselves a happy story, saying 'it’s all right', ‘there is nothing to be sacred of’ and finally 'the thunder is almost quiet'.

In the final scenario, 'Don’t Like', a child is clearly indicating dislike for the food presented. The two most common responses to this scenario were to Ignore the problem \((n = 10, 22\%)\) or Seeking help \((n = 19, 41\%)\). None of the children felt that this was an anxiety-provoking situation and were quite comfortable either not eating the food they did not like or telling their mum or teacher that they didn’t like the food. Some of them \((n = 8, 18\%)\) tried negotiating, by asking for something else instead or trying the food to ensure they did not like it before rejecting it in order to solve the dilemma. Only one child chose to Think positively by telling herself 'it’s yummy' and another child became angry, saying 'I would tell mum off in my angry voice. I would get her to go and think about why I don’t like peas'. Of the 44 respondents only five \((11\%)\) did nothing or did not know what to do.

The most frequently used coping strategy for the friendship, choices, and teasing scenarios was problem-solving. These could also be said to be situations in which children feel most in control. Predictable, comfort-seeking was mostly sought in separation and help was sought when they were faced with something they did not like. Most children ignored the problem they could not control, such as the lightning in the night fears scenario.
The teacher scenario elicited three preferred strategies. Most \((n = 9, 22\%)\) children did not know what to do when told off by the teacher, closely followed by those that used Problem-solving strategies \((n = 8, 19\%)\) and Comfort-seeking strategies \((n = 1, 17\%)\).

**Discussion**

The study confirms what we know from the existing literature, that children are able to regulate their emotions using such strategies as telling themselves ‘it’s all right, the thunder is almost quiet’ in relation to perceived scary situations or regulating behaviour by blocking the stimulus, for example, by hiding under the doona when faced with a scary situation that they cannot control. They are also able to demonstrate emotional knowledge of others by being able to predict what a playmate showing a certain emotion might do, for example: ‘He looks like he is angry and wants to shout!’

They are able to regulate the source of emotional stress in situations they can control by, for example, negotiating turn-taking in play, saying to the children that are leaving them out ‘I want to play too’ or ‘please can I play’. They are able to see that what they think affects the way they behave ‘I just thought of a plan, I will jump and get it off him’ or ‘I know because I can see it in my imagination, so I know which one to choose first’.

The study has also shown that 4-year-old children are capable of more than just emotional regulation; they are able to report a range of coping strategies. Not only can they describe their coping efforts, they are also able to evaluate the efficiency of those efforts. For example, one child responded that she sometimes screams when she is being teased. When the interviewer asked whether she found that helpful she said ‘No, then I play a game away from the person that is trying to tease me’. The literature points to the central role of focused attention and memory in coping and these skills were evident in the study. One child would say each time he looked at a new situational card ‘I look, look and look again’ before carefully describing what was happening. Another child displayed a patient determination in achieving the goal of playing with the children from whom she was being excluded. She said she ‘would play with the one (group) and then I would check with them (the other group) to see if they want to play with me now?’

**Productive and Nonproductive Coping in Preschoolers**

The 4-year-old children in this study have already developed a range of productive ways of dealing with stress, but had also already developed some nonproductive ways of coping. This indicates that intervention at this age should focus both on learning more useful ways of coping as well as unlearning some of the unhelpful coping strategies.

In addition, this study shows that, contrary to the literature (e.g., Band & Weisz, 1988) young children were able to report a range of secondary control strategies, including self-calming and positive self-talk as a part of the productive coping style. This was evident when one of the children said they ‘count to ten until the teacher is gone and then go to the book area and find a book’ when coping with night fears.

**Preschoolers’ Situation-Specific Coping**

From a practical point of view this research also provided greater insight into the ways in which children deal with situations, and provided a greater understanding of the issues children are finding hard to manage. The study, for example, highlighted the concerns of the population of children who are dealing with separation anxiety. The study found that three out of four were not dealing with this issue in a productive manner and would benefit from being taught more productive ways of coping with separation.

In the Friendship scenario, while most children coped well, a number of children \((n = 6, 13\%)\) did not know how to deal with being left out of the group and some applied inappropriate strategies like ignoring the other children, which by their own admission ‘didn’t help’. It is these children who need to learn more effective skills and unlearn ineffective ones, as the evidence suggests that coping strategies are continuously developing throughout the life cycle and therefore this could essentially change how the child deals with problems in the future. Not only will children develop better skills, but they will also build confidence and resilience through having rehearsed coping strategies in key areas of psychological wellbeing.

Some situations seemed more useful in the interview than others. The Choices scenario, for example, did not entice much discussion, whereas the Teacher scenario seemed like a very important problem for the children and required the application of a range of strategies. While the range was positive, there was a relatively large cohort of students \((n = 9, 20\%)\) who did not know what to do when being told off by a teacher, indicating that children could benefit from learning from their peers how to deal more effectively with this challenge.

Both the Teacher scenario and the Teasing scenario elicited angry responses and therefore provide the opportunity to talk to young children about experiencing feelings of anger and finding ways to express them in a more productive manner.

Night fears predictably elicited comfort-seeking, but also demonstrated creative thinking in their attempts to solve the problem of seeing and hearing lightning. Strategies included ‘pulling the blinds down until I can’t see the lightning’, ‘closing the curtains’ (but if you still hear the noise) ‘just close your ears and pretend not to listen’, switching on a torch or leaving on the light in the room. This scenario also elicited a range of positive think-
ing including saying that ‘there is nothing to be scared of’, ‘tell(ing) the boy to be brave’ and ‘tell(ing) myself a happy story’. In addition to challenging the notion that younger children are not yet capable of logical, organised thought processes, and therefore not aware of their secondary control strategies (Band & Weisz, 1988; Cole & Cole, 1996), it is a very good scenario for children to discuss with their peers as all could relate and many could share their imitative strategies and increase their peer’s coping repertoire. Finally, in the ‘Don’t like something’ scenario, children used avoidance strategies such as Ignoring the problem, Doing nothing (n = 15, 35%), much less than approach strategies such as Solving the problem, Seeking help or Thinking positively (n = 28, 65%), confirming that when the situation is seen as one they can control, they are more likely to use approach strategies. This finding may have something to do with the homogeneous nature of the group, as Band and Weisz (1988) state: ‘it is possible that relinquishing control is frowned upon in our culture and that children learn this value rather early in life’ (p. 251).

**Strengths, Limitations and Future Directions**

One of the limitations of the study is the modest number of participants and the homogenous nature of the group. Additional coping strategies could potentially be revealed in a larger and more culturally diverse sample, thus it is recommended that this study be replicated in a larger sample across multiple early learning settings. Secondly, as this was an interview-based study, children reported more productive coping strategies than nonproductive ones. In order to ensure that the full range of nonproductive strategies was captured, an observational study of the children behaving in these seven situations would be a worthwhile addition.

The nature of the study also meant that children were asked to reflect on a situation rather than being observed facing an anxiety-provoking situation. Their coping strategies may be quite different in real-life situations; therefore a comparison between observed behaviour and reported behaviour could provide more valuable information in the area of preschoolers’ coping. An alternative follow-up study could involve interviews with 6-year-old children using the same cards to investigate the developmental changes that occur from the ages of 4 to 6. This may also address criticism in the literature that few studies of children’s coping skills are consistent across time (Losoya et al., 1998). The strength of this research is that it addresses the gap in existing research on young children and coping strategies. This research highlights that previous studies had underestimated 4-year-old children’s ability to understand and report their coping efforts. Finally, this research provides rich qualitative data from which quantitative measures can be developed to further understand the coping strategies of preschoolers.

**Implications for Practice**

Coping is an important contributor to psychological health and schools are urged to use evidence-based interventions to foster wellbeing, thus this research establishes the platform for the development of a coping component of the preschool curriculum. This research has established that young children are able to communicate their coping actions. Therefore, interventions could make use of situation and coping in a practical way to foster the development and use of more productive coping strategies. Children could be taught to evaluate situations and practice productive ways of coping so that, when faced with actual situations, they feel confident that they will know how to respond. The situational coping images used in this study (Frydenberg & Deans, 2011) may be used or alternatively those working with young children could devise their own set of age and culturally appropriate visual tools.

**References**


Coping Strategies of Preschoolers


