

1996

Honouring young children: research, curriculum and practice in early childhood education

Loraine Corrie (Ed.)

Follow this and additional works at: <https://ro.ecu.edu.au/ecuworks>



Part of the [Education Commons](#)

Corrie, L. (Ed.). (1996). *Honouring young children: research, curriculum and practice in early childhood education*. Perth, Australia: Edith Cowan University.
This Book is posted at Research Online.
<https://ro.ecu.edu.au/ecuworks/6840>

Edith Cowan University

Copyright Warning

You may print or download ONE copy of this document for the purpose of your own research or study.

The University does not authorize you to copy, communicate or otherwise make available electronically to any other person any copyright material contained on this site.

You are reminded of the following:

- Copyright owners are entitled to take legal action against persons who infringe their copyright.
- A reproduction of material that is protected by copyright may be a copyright infringement. Where the reproduction of such material is done without attribution of authorship, with false attribution of authorship or the authorship is treated in a derogatory manner, this may be a breach of the author's moral rights contained in Part IX of the Copyright Act 1968 (Cth).
- Courts have the power to impose a wide range of civil and criminal sanctions for infringement of copyright, infringement of moral rights and other offences under the Copyright Act 1968 (Cth). Higher penalties may apply, and higher damages may be awarded, for offences and infringements involving the conversion of material into digital or electronic form.

Honouring young children
research, curriculum and
practice in early childhood
education

Edited by Loraine Corrie

EDITH COWAN UNIVERSITY
LIBRARY

Edith Cowan University

Editor Loraine Corrie is lecturer in Early Childhood Studies, Faculty of Education, Edith Cowan University.

Page layout Martyn Wild.

Printer Executive Press, Boag Road, Morley, Western Australia.

© 1996 Edith Cowan University. Except as provided in the Copyright Act of 1968, no part of this publication may be reproduced by any means without prior approval of the publisher and editor.

ISBN 0-7298-0318-X

Editorial Early childhood educators tend to be people who like to agree with their colleagues. Often we avoid conflict situations and keep the peace by being silent, rather than raising our voices in dissent. But rapid changes to the field, coupled with the explosion of knowledge in the 90s, have opened up new dilemmas and new challenges for teachers. If we are to meet these challenges in a way that honours young children, then we need to talk about our differences and diverse views in a spirit of trust and professional collegiality.

The *Second Edith Cowan Memorial Conference on Early Childhood* provides a forum for the debate of research and topical issues, and it has been the impetus for this book. Some of the contributors are academics or research graduates in Early Childhood Studies in the Faculty of Education, Edith Cowan University, and their work reflects issues that are important throughout the world. Several contributors are early childhood teachers undertaking research degrees in our Faculty, and they bring special insights to their writing.

This book covers a wide range of topics. Four papers address aspects of the early childhood curriculum, from using food as a medium for science, to stimulating children's creativity in art. Linley Campbell's paper spans physical education and prosocial skills, with some ideas for using cooperative games. The psycho-social development of children is addressed in a paper on self-esteem, and two papers about children with special needs in inclusive settings.

Carmel Maloney asks us to reconsider the traditional roles of the early childhood teacher, in view of the many changes in the field. One area of change is the assessment of children's progress, which is linked to teacher accountability, and Lennie Barblett urges us to speak out about accountability, in order to maintain the essence of early childhood philosophy.

All the papers are based firmly in valid and reliable research. The papers reflect widely accepted principles of "Best Practice", and current knowledge in the field.

We think that the Edith Cowan Memorial Conference on Early Childhood is a safe place to foster a culture of critical debate, where colleagues can talk, disagree, critique, and reflect on different views and knowledge. We hope that colleagues will have opportunities to review their own values and beliefs, and at times, come to some new understandings. Accepting the challenge of change, and being prepared to stand up and speak out, mark important steps in our journey to honour young children.

Contents

PAPER 1	<i>Gender justice in early childhood education</i> 9 Bev Murfin
PAPER 2	<i>New views on self esteem and ways teachers can help young children grow in competence</i> 17 Loraine Corrie
PAPER 3	<i>The role of the early childhood teacher: Time to reconsider</i> 23 Carmel Maloney
PAPER 4	<i>Cooperative skills and pro-social behaviour: How do your games measure up?</i> 31 Lynley Campbell
PAPER 5	<i>Young scientist in the kitchen</i> 39 Judith Cousins
PAPER 6	<i>Brain gym: What is it and does it work?</i> 45 Loraine Corrie and Amanda Blackmore

- PAPER 7** *Flowers are red with green stems - aren't they? Fostering young children's creativity in art* **53**
 Tricia Walsh
- PAPER 8** *Helping young children with disabilities to achieve their full potential in an inclusive setting* **63**
 Amanda Blackmore and Ping Ping Seah
- PAPER 9** *Caregiver mediation of interactions between children with special needs and their typical peers in Child Care* **73**
 Ruth Gope
- PAPER 10** *Life in a Danish Børnehave: An Australian perspective* **81**
 Teresa Harms
- PAPER 11** *The effects of Aboriginal children's participation in Aboriginal preschool on the education outcomes in year one* **87**
 Jerome Toonen
- PAPER 12** *Time to change our image as "Nice ladies who love children" and speak out about teacher accountability* **91**
 Lennie Barblett
- PAPER 13** *The story of professional growth* **97**
 Glenda Campbell-Evans

Contributors

Ms Lennie Barblett, Research Student, Ph.D.

Dr Amanda Blackmore, Lecturer, Teaching & Curriculum Studies, Faculty of Education, ECU

Ms Lynley Campbell, Lecturer, Physical and Health Education, Faculty of Education, ECU

Dr Glenda Campbell-Evans, Associate Dean, Faculty of Education, ECU

Dr Loraine Corrie, Lecturer, Early Childhood Studies, Faculty of Education, ECU

Ms Judy Cousins, Lecturer, Science Education, Faculty of Education, ECU

Ms Ruth Gope, Research Student, Ph.D.

Ms Teresa Harms, Research Student, M.Ed.

Ms Carmel Maloney, Lecturer, Early Childhood Studies, Faculty of Education, ECU

Ms Bev Murfin, Graduate, M.Ed.

Mr Jerome Toonen, Graduate, M.Ed.

Ms Ping Ping Seah, Research Student, M.Ed.

Ms Tricia Walsh, Educational Consultant

Gender justice in early childhood education

Bev Murfin

Introduction

One of the primary goals of early childhood education is to assist all children to reach their optimal development without socially imposed gender limitations. Gender justice is thus a major concern for early childhood educators. Gender justice entails the promotion and encouragement of a wide variety of ways of being female, the development and promotion of new and non violent ways of being male, and the expectation that children will try out and take risk with new gender identities.

This article presents the findings of a research study (Murfin, 1996) which investigated gender justice in a preschool setting from the two different angles of children's perspectives on their gender relations with their peers and parents' perspectives on the gender relations that influence the way their children live their lives.

Literature review

Researchers (for example, Alloway, 1995 and MacNaughton, 1995), claim that 'eight's too late' and that how children construct their identity as either a boy or a girl needs early identification. That is, when children first attend an educational institution, the way in which they construct their sex/gender identity needs to be a focus of attention for the educators in that setting.

Children construct their identities through interactions, or discourses, that are dominant in our society. 'Discourse' is the term currently used by poststructuralist researchers to identify ideas, attitudes, and beliefs that indicate to an individual how they should behave, act, and be seen by our society in order for them to be identified as male or female (Alloway, 1995). These discourses imply that it is 'normal', 'natural', and 'common sense' for a male to be dominant ("boys will be boys") and for a female not to do battle ("sugar and spice and everything nice").

This is not to say that all boys and all girls will construct their identity in a similar way. What it means is that, given the discourses that are dominant, children select those that have relevance to their lives - their lives being a conglomerate of all past experiences. It is the discourses present in the educational setting that early childhood educators need to identify. These discourses are influenced by the discourses in our society and the discourses available in the home setting. Consequently, according to Nolan (1995, p. 408), "The promotion of gender equity through schooling without enlisting parents is akin to trying to fill a bath with the plug out."

Methodology

This study of gender relations and interactions of 45 four to five year old children in one preschool setting was conducted in two phases. Phase I entailed an investigation of children's gender relations through the use of naturalistic nonparticipatant observations of children's free choice play activities. These interactions were video tape recorded and segments were replayed to small groups of children. Through the use of informal focused interviews, these interactions were discussed with the children to establish the children's perspectives on these interactions. Phase II entailed an investigation of parents' perspectives on their children's sex/gender relationships through the use of a questionnaire and follow-up interviews.

Phase I: The results

The results of this study indicated that many boys (and some girls) construct their identities through masculinist discourses which can lead children to believe that males are superior to females; that males are competitive and must dominate not only females, but also other males; that rules of fair play do not apply to males; and that dramatic play involves supremacy through aggression, heroism, war, death and killing (Murfin, 1996). Unless educators are aware that this is the way some boys are constructing their identity, this type of domination will go unnoticed, and thus condoned. This will lead to perpetuation of the differences between the two sex/genders.

This study also indicated that many girls (and some boys) construct their identity through feminine discourses which can lead children to believe that females must accept domination from males; that excluding males from play will prevent this domination; that females only have power in the domestic setting; and that females are passive, rule following, and hard working (Murfin, 1996). Again, unless educators are aware that this is the way some girls are constructing their identity, this type of domination will go unnoticed, and thus condoned. As implied previously, not all boys and not all girls construct their identities according to these dominant discourses and this is where gendered relationships can be challenged.

Phase II: The results

This study found that parent's perspectives on the sex/gender relations in the home setting were predominantly not associated with the dominant discourses of our society. Conversely, parents' perspectives on their children's beliefs and attitudes implied that they believed that the children themselves do have sex/gendered ideas about what they should and should not do as either a boy or a girl.

The study also indicated that the parents of these preschool children are concerned with preparing their children for successful futures in both the world of work and in their family lives. Parents were also aware of the changes that were currently happening in our society with regards to gender equity and that they were keen to talk about sex/gender matters. Although their views differed greatly, all parents were concerned with their children's futures and the implication of this finding is that educators can and should capitalise on this interest by promoting the discussion of sex/gender issues in their relationships with parents at all levels.

Implications for educators

The major findings of this study were that many children are essentialists in their beliefs and attitudes about what girls and boys can and cannot do; that educators may not be aware of this feature of children's relationships with each other; and that parents have a deep concern about the way in which their children's sex/gender will affect their children's futures. The implications of these findings are that educators need greater awareness of the way in which children construct their sex/gender identities and that parents have an important role to play in any gender equity program.

Recommended classroom praxis

Awareness is the key. If early childhood educators are aware of the discourses dominant in our society and of the discourses dominant in a particular educational setting, they will then be able to observe for themselves how children are constructing their sex/gender identities and will be able to intervene when these discourses result in an individual or a group of children being oppressed. To do this, educators need to:

Challenge gendered discourses. This involves discussing with children (either as individuals, or in small groups or whole group situations) what was happening, what made them think they had the right to dominate others, and how they would feel if they were subjected to similar oppression.

Bibliotherapy. This involves reading stories to children that introduce alternative, nontraditional, and ungendered ways of being and discussing these with children. Initially, children are bound to reject these alternative readings (Davies, 1989) but by presenting them on a regular basis the discourses dominant in the educational setting can slowly be changed.

Alternative storylines for dramatic play. The storylines introduced through bibliotherapy, with educator assistance, can be introduced into children's dramatic play to further reinforce ungendered discourses.

Role plays by educators, parents, and the children themselves. These can be used to highlight gendered ways of interacting that dominate certain individuals and can be used as initiators of discussions with the children.

The use of persona dolls and/or puppets. These may be used to present inequitable situations as a basis for analysis and discussion by the children with a view to bringing about ungendered behaviour.

Forming parent/teacher partnerships

Involving parents in the classroom gender equity program (as previously mentioned) is one level of involvement. However, for parents to understand the aims and objectives of such a program, other forms of involvement are necessary. These could include workshops for parents, forming a parental gender equity team, involving parents in publicising and promoting sex/gender issues, and involving parents in projects. However, according to Nolan (1995, p. 408), "The discussion of gender issues has the potential to inflame the passions of almost any parent, which is reason enough to ensure that the process must be sensitive, enjoyable and non-confrontational." She also recommends that parents need to govern any process of parent/teacher partnerships.

Workshops for parents. At the present time, many texts are being published which would be helpful for educators (and later parents) to use as starting points for workshops. Two such texts are "Equal Play, Equal Work" and "Stages: Steps Toward Addressing Gender in Educational Settings" (see reference list). The results of this study indicated that the topics in need of discussion with parents included the ways children take up sex/gendered positions in their relationships with their peers; the limits children place on their actions and behaviours as a result of their assumed sex/gendered positions; sexual harassment and bullying (the limits children place on others as a result of their assumed sex/gendered positions); and the ways in which women's and men's lives are changing.

Forming a parental gender equity team. Following the successful progress of workshops, a small group of parents may like to take responsibility for implementing the recommended changes. The areas that parents may like to promote could be communicating with other parents and encouraging them to join the workshops; choosing topics for subsequent workshops; and finding ways of increasing male participation in the preschool setting by involving fathers, grandfathers, uncles, and brothers in the preschool program.

Ways and means of publicising and promoting sex/gender issues. These could include providing a noticeboard on which educators and parents could place magazine or newspaper articles on sex/gender issues; establishing a section in the parent

library of sex/gender materials for borrowing by parents (including a subscription to *The Gen*); and making time to discuss with parents informally unsex/gendered or non-traditional behaviours of their children by pointing out the positives for the children and their learning.

Involving parents in projects. These projects would entail parents observing and recording children's sex/gendered participation in various play areas (for example: home corner, computer, blocks etc.). MacNaughton (1995, p. 8) found that parents, after monitoring children's use of different play areas, became strong advocates for the educator's gender equity program.

Conclusion

In order to change the discourses dominant in a setting, awareness is vital. If oppressive ways of being are not observed by educators and attended to, non-intervention is tantamount to condoning these behaviours. Doing nothing not only does not move gender justice forward, it reinforces the status quo. Indicators that educators need to be looking for include: girls and/or boys dominating certain play areas or activities; same sex/gender play in certain activities; the words "no boys allowed"; and girls withdrawing from certain play areas because of boys' competitiveness, aggression, or dominance. However, intervention is only the first step. If intervention in the form of educator supervision is the only praxis implemented, educators will constantly be needing to intervene. Intervention must be discussed with children in order to make available to them discourses that will enable them to choose ways of being that do not dominate others and that do not allow others to dominate them.

In order to provide this learning environment, early childhood educators need to enlist the aid of parents. Parents need to understand the educator's gender equity policy and program and to participate in its implementation. By combining classroom praxis and parent/teacher partnerships, an educational setting in which ungendered discourses are available to children can be established. In such a setting children can freely choose their ways of being which are dependent on what is vital to them as a person and not what is needed to successfully be a boy or a girl.

References

- Allard, A., Cooper, M., Hildebrand, G., & Wealands, E. (1995). *Stages: steps towards addressing gender in educational settings*. Carlton, Vic: Curriculum Corporation.
- Alloway, N. (1995). *Foundation Stones: The construction of gender in early childhood*. Carlton, Victoria: Curriculum Corporation.
- Davies, B. (1989). *Frogs and snails and feminist tales: Preschool children and gender*. Sydney: Allen & Unwin.
- MacNaughton, G. (Ed.). (1993). *Equal play, equal work: An early childhood gender equity reference booklet*. Melbourne: Office of Preschool and Child Care, Victorian Government Department of Health and Community Services.
- MacNaughton, G. (1995). *The power of Mum! Gender and power at play*. Canberra: AECA Resource Book Series, Vol 2, No 2, June, 1995.
- Murfin, B. (1996). *Children's gender relations in the preschool setting: Parents' and children's perspectives as indicators for change*. Unpublished master's dissertation, Edith Cowan University, Perth, Western Australia.
- Nolan, B. (1995). Parent and gender matters: Productive partnerships. *Proceedings of the Promoting Gender Conference* (pp. 407-414). Canberra: Publications and Public.

*New views on self esteem
and ways teachers can
help young children grow
in competence*

Loraine Corrie

Many parents and teachers seek to increase children's self-esteem. Guided by research, they endeavour to fill children's lives with love and acceptance because they believe that children will achieve success when they feel good about themselves. However, recent research shows that we are far from having communities of children who are happy, secure and confident.

Despite decades of "self-esteem", more children are clinically depressed; more youth suicide; and more children are on medication to control their behaviour. Teachers say that many children have few social skills, and that children give up easily when faced with difficulties (Seligman, 1995).

This paper reports some new research on self-esteem, and suggests that raising self-esteem may be less important than helping children develop competence. It outlines some ways to foster competence, optimism and resilience in children, and suggests that early childhood teachers have a crucial role in the process.

Self-esteem and success

Researchers have not established that high self-esteem is linked to success. Self-esteem is hard to define and measure, and it is difficult to identify how it affects people's lives. The results of approximately 10,000 studies have shown mixed, insignificant or absent associations between success and failure and self-esteem (Kohn, 1994).

Self-esteem and behaviour

Many people assume that high self-esteem leads to constructive life choices; for example, teenagers with high self-esteem will not become pregnant, take drugs, or indulge in crime and violence. However the results are not clear cut, and no evidence supports the view that delinquency is caused by a lack of self-esteem (Kohn, 1994).

Self-esteem programs and high self-esteem

There is little research evidence to support the use of self-esteem programs. Critics of self-esteem programs (Kohn, 1994; Katz, 1993) assert that exercises designed to make the each child feel "special" are ineffective. The "feel good" approach is said to have little lasting effect, because it does not strengthen and support the child's sense of purpose, achievement and worth.

Katz (1993) points out that many elements of self-esteem exercises turn children's attention inwards to the self, rather than outwards towards others. Strategies designed to help children feel good may be ineffective because being told that one is "special" will not change a person's underlying belief system. Children will not feel good by getting endless praise; by being accepted no matter how they behave; or by getting quick and easy results with very little effort.

Research suggests that children's experience of success or failure may be less important than the way they explain why they succeeded or failed. Seligman (1995) notes that pessimistic children tend to see failure as permanent (*I'll always be hopeless*), global (*I'm bad at everything in school*), and beyond their control (*there's*

nothing I can do about it); whereas optimistic children see failure as temporary, specific, and within their power to change.

Teachers can help children develop competence, resilience and optimism, and a starting point may be to reflect on the following questions about classroom practice. These reflection points are set in the pre-primary context, but the essence can be generalised from Kindergarten to year 3:

Does the teacher say “We always start autumn in week 5 of term 2” . Does the teacher “cover” certain themes at particular times of the year? Is planning the content the teacher’s sole responsibility? It helps children more when the content is negotiated, so that teacher and children plan the curriculum together.

Children become empowered when their suggestions, ideas and interests are taken up and incorporated into the curriculum. They are likely to be enthusiastic and motivated when they have ownership of the material they learn. It is the teacher’s responsibility to ensure that curriculum guidelines are followed, and that appropriate learning outcomes are achieved.

Do staff say “Come here Jason, you haven’t made your bird yet”. Often this means that all children “have to make one today”. It helps children more when they can select from a variety of experiences, and create their own experiences.

Often children in one class have many different interests, strengths and needs. Children may become motivated to learn when they work on different projects, so that one group investigates bridges, and another group investigates birds. When there is a whole group focus, such as an excursion to the zoo, some children may investigate zoo animals, but others may be interested in the zoo keepers, or the enclosures of different types of animals. Children may want to represent their experiences with clay, print, or in the block corner.

The point is that not all children need to explore and represent their experiences in the same way. Making a choice helps to empower the child, and staying with choices is an important life skill.

Do staff say “Come and do your work first, then you can go and play”? Frequently this means that the child is required to complete a structured teacher-directed art or craft activity. Often the activity is a “closed task” with only one right way to make the object, and models (“*make one just like this*”), templates (“*this will help you do it properly*”) or worksheets may be used.

Models and templates provide adult representations that reinforce the child's sense of *"I can't do it by myself"*. Children's sense of incompetence grows quickly, and leads them to become passive and dependent learners. Worksheets may be used too soon with young children who need concrete experiences, and this may result in children following instructions rather than learning new skills and knowledge.

Many table-top activities require low-level skills such as: *"Cut on this line"* or *"Glue the eyes here"*, rather than higher-order thinking skills such as planning, communicating, creating, and inventing. The use of higher-order thinking skills leads the child to feel competent, and behave in a competent way.

Do staff spend the majority of "inside time" at teacher directed table-top activities? If so, this may mean there are fewer opportunities for staff to encourage, stimulate and enter free and guided play situations. Play provides many opportunities to reinforce and encourage a wide range of social skills such as turn taking; sharing; and seeing other points of view. By entering a game, adults can recognise children's ideas, scaffold their knowledge and understandings, and provoke further learning.

When staff are freed from table-top activities, then there is time to observe and document learning outcomes in the many different contexts, inside and outside the classroom. Recording these observations provides valuable information about each child's developmental profile, which is used for planning.

Do learning experiences allow children to complete them quickly and easily? It is helpful for children to be challenged intellectually, rather than have quick and easy success always. The teacher's role is to teach specific skills and concepts that will enable the child to succeed. When children face a challenge, then teachers can support them to persevere in the face of difficulties.

Is play used as a "filler" when there is a spare ten minutes; as relaxing activity when children are tired; or as an opportunity for children to "let off steam"? Allowing children to play for brief spells means they have fewer opportunities to deepen their play, or for the play to lead to developing competencies. Tired young children are less able to solve problems that occur in free play situations, such as negotiating and settling disputes. Adults may intervene to solve the problem, then children quickly learn to depend on adults, rather than develop skills to deal with interpersonal conflicts.

It is helpful to allow big blocks of time for free and guided play, at times when children are fresh, enthusiastic and energetic because this provides opportunities for

many social, cognitive and physical skills to develop. When dealing with interpersonal conflicts, it is helpful for teachers to coach problem-solving skills, rather than provide solutions.

How are difficulties and failures managed? When a child brings a piece of work (such as cutting) to the teacher and says “It’s awful”, how does the teacher respond? Teachers who strive to raise self-esteem may say:

“No, it’s not, it’s lovely” (falsely reassuring)

“Never mind, put it over there and come and do...” (distracting)

“Don’t worry, cutting is just not your thing” (consoling)

When teachers deal with difficulties by falsely reassuring, distracting or consoling then they may increase the child’s sense of pessimism and helplessness (the child may think *“It is awful, I can’t do it, and I’ll never be able to do it”*).

A more helpful response may be: *“What part of it don’t you like?”* This type of question encourages the child to be specific about the difficulty. The child may say that the line is jagged and messy. Then the teacher can say *“So you’d like it better if the line was less jagged?”* When the child agrees, the teacher can work with the child to teach the skills that will lead to successful cutting. This will help the child to develop a sense of optimism when faced with difficulties.

It is helpful when children see failure as:

- temporary rather than permanent:
“I didn’t do so well cutting out today; next time I’ll go more slowly” rather than *“I’m hopeless with scissors. I can’t cut properly”*.
- specific rather than global:
“I have trouble cutting circles” rather than *“My cutting is awful”*
- something they have control over, rather than being powerless about:
“I practised and tried really hard, and my cutting is better today” rather than *“That’s lucky, my scissors stayed on the line”*.

It is helpful when children realise that success is not just “luck”, but results from doing well, which means persisting when things are difficult. Resilience is fostered when difficulties are managed and overcome, and the child recognises that persevering brings rewards.

Summary

Recent research suggests that feeling good is less important than doing well, and ideas about the importance of self-esteem are changing. How children think about and explain their successes and failures may be more important than succeeding or failing.

Young children are helped to become competent by negotiating a curriculum that incorporates open-ended learning experiences. Staff observe and document learning; join children's play to scaffold knowledge and provoke learning; directly teach some skills; and coach social skills. Daily interactions between staff and children help children to overcome difficulties and feel optimistic about their abilities. Teachers who provide high-quality programs make a valuable contribution to the growth of competence in young children.

References

- Katz, L. (1993). Are we confusing Self-Esteem and Narcissism? *Young Children*, November.
- Katz, L. (1993). "All About Me". *American Educator*, Summer 1993, 18-23.
- Kohn, A. (1994). The truth about Self-Esteem. *Phi Delta Kappan*, December, 273-283.
- Seligman, M. (1995). *The optimistic child*. Sydney: Random House.

The role of the early childhood teacher: Time to reconsider

Carmel Maloney

Introduction

Early childhood education in Western Australian, and indeed the world, is undergoing momentous change both on an educational and social level. Significant shifts in theoretical frameworks have raised questions about appropriate practice. Child development has traditionally underpinned pedagogy in early childhood, but challenges to this viewpoint as the foundation of early childhood education have come from more recent perspectives regarding how children think and learn, what should be learned, and more importantly how it should be taught (Fleer, 1995; Cullen, 1994; Bodrova and Leong, 1996). This recent work raises questions regarding the role of the teacher and of appropriate pedagogy that takes into account cognitive, social and cultural needs of children, and provides scope for the child to be the centre of the curriculum.

Ideally early childhood education should provide space in the curriculum for processes that support the needs and growth of all individuals. This requires a flexible approach from the teacher, in both thinking and doing; an approach which continually questions and revisits goals, beliefs and practices in order to reconstruct the role of early childhood educator.

The challenge we face in education and indeed in early childhood education is to meet the intellectual opportunities and the diverse needs of children. As Darling-Hammond (1996) states, our future depends on our ability to teach. Therefore, as early childhood educators, we need to be knowledgeable about teaching and learning as a means of helping students learn more powerfully and productively.

Traditionally the role of the early childhood teacher has grown from the notion of teacher as nurturer and facilitator. Based on philosophers and theorists such as Froebel, Pestalozzi, and more recently, Piaget, the teacher was regarded as a 'gardener', carefully tending, cultivating and nourishing the individual child within a safe, supportive environment. The teacher planned the environment, selected materials and activities and acted as a guide and facilitator in order to meet individual needs of children. It was believed that through children exploring and interacting with the environment, and the teacher guiding, observing and providing appropriate activities that children would grow and develop. In this way, teachers were seen to operate a child-centred program. However, as Edwards and Mercer (1987) explain the concept of child-centredness is a myth in many ways,

...the ideas... are largely preordained, though the pupils are not explicitly aware of this in the lessons... The pupils' real task is, to a significant degree at least, one of inferring and discovering what the teacher wants them to say and do.....The teacher seems able despite what appears to be a relatively open, pupil-oriented and conversational style of teaching to maintain a close control over the selection, expression and direction of ideas and activities (p112).

This approach does not place the child within a learning centred and learner centred setting, where challenging curriculum goals are set in order to meet individual needs and interests of children. If we are serious about the child's right to learn, then we must be serious about understanding teaching and learning and be prepared to build personal professional knowledge for powerful teaching (Darling Hammond, 1996).

Powerful teaching is associated with enabling children to reach the highest level of cognitive development, that is, that children have the ability to perform and self-regulate complex cognitive operations (Bodrova and Leong, 1996). Children may not achieve their potential simply by being involved with materials selected and planned by the teacher, or through the process of maturation.

A Vygotskian view of the role of the teacher

Vygotsky believes that children develop higher mental functions such as, mediated perception, focused attention, deliberate memory, self regulation and logical thinking (Bedrova and Leong, 1996), through formal and informal instruction. This means that teachers are more active and explicit in assisting and supporting children's learning, rather than following the child's lead and providing tasks and arranging the environment to meet perceived needs.

Vygotsky's perspective, in some ways, challenges the traditional view of the role of the teacher. It places teachers in a more proactive position where they can become more directly involved in the content of the learning through a certain type of instruction. What must be made clear at this point is that formal and informal instruction, as envisaged by Vygotsky, does not imply a more academic programme, but as Dockett (1995) suggests stretching, enhancing and expanding relevant experiences. So, what kinds of teaching practices support and enhance higher levels of learning and performance for children at different ages and stages of development? The following are suggested processes and strategies that assist and guide children's learning:

1. Scaffolding
2. Mediating
3. Collaborative activity
4. Play
5. Using projects

Scaffolding

Scaffolding refers to the assistance given to the child to make the task easier. In this instance, the task is not changed in any way, rather, the type of support and guidance given is of a different type. The teacher structures, models, questions and cues as a means of stimulating higher order thinking and problem solving processes. In the beginning, the teacher takes most of the responsibility for the task until gradually this decreases and the child becomes more accountable and ultimately performs the task independently. Thus the scaffold can be removed.

The process of scaffolding is most evident when introducing children to new tasks, those previously deemed to be beyond the child's experience. In this case, the teacher can explicitly teach in both formal and informal ways, hence guiding cogni-

tive processes and at the same time making links between the known and unknown, the old and the new.

Simple strategies for scaffolding children's learning, include: making goals explicit, clearly stating the intended goals as a way of cuing the learner to the task; modelling, actively demonstrating a way of proceeding with the expectation that the child will attend to the task, internalise the process and reproduce the behaviour. In addition the teacher scaffolds by: questioning; asking children to clarify and elaborate ideas; cuing, explaining, using clues and signposts and suggesting; providing feedback, clear information directly related to the task.

Scaffolding, in itself, does not necessarily guarantee that learning will occur (Elliott, 1995). What must be accounted for is the child's level of motivation, the degree to which the task gains and sustains the child's interest, and the extent to which the task is relevant and meaningful. In addition, the teacher must consider the level of self confidence the child has in tackling new tasks, and finally the classroom ethos, particularly the extent to which the teacher supports and encourages risk taking.

Mediating

A mediator is something that makes it easier for the child perform a certain behaviour (Bodrova and Leong, 1996). Mediators can be either verbal or visual or both. For example, when a child sees a necklace hanging at the entrance to the home corner, he/she knows that there is room in the home corner to play. In this instance the teacher has used the necklace as a mediator. The visual mediator most likely is accompanied by the teacher saying "only five children at once in the home corner". The visual and verbal mediator assists the child in remembering that only five children can be in the home corner at one time and in regulating their own behaviour.

Teachers who use mediators are providing a scaffold for the children, and therefore, children are more likely to develop skills such as memory, attention and self-regulation (Bodrova and Leong, 1996). In the strategy of scaffolding, the teacher becomes the mediator as he/she guides, emphasises and supports the learning. Examples of mediators are: when a teacher plays a particular piece of music at pack away time, and the children respond appropriately to the music by beginning the task of putting away. When a teacher asks a child to dictate his/her story and writes it under the drawing so that he/she can copy the letters, the teacher's writing is a mediator for the complex task of writing. The teacher and writer work together on the task, and gradually the child will attempt more words and be less dependent on the teacher.

Mediators are prompts, cues and supports for developing higher mental processes. The teacher's aim is for the child to be independent, and for the mediator to be internalised. When this occurs the child is self-regulating.

Collaborative activity

In collaborative learning, children share the activity to achieve a common goal or task. This may occur between two or more children and at various levels of sophistication. For example two children may complete the same jigsaw puzzle where they question each other and problem solve together as they search for the correct pieces. On the other hand, three or more children may be involved in building an elaborate system of roads, tunnels and bridges in the sand pit, each assisting and contributing to the activity. In this way, the shared collaborative activity becomes an interaction between peers, each bringing varying levels of knowledge to the task.

Sharing through language and doing, provides the social context for moving to higher levels of cognitive learning. The teacher's role in collaborative learning is to firstly structure, plan and organise the learning opportunity or task and secondly to act as a monitor. This involves knowing when to step into the activity and when to remain on the fringes merely prompting, cuing and assisting where needed.

Bodrova and Leong (1996) suggest the following points for teachers participating in a dialogue with children:

- Help the child make connections with wider concepts.
- Look for clues about the child's thinking process.
- Decide how much support is needed.

Not all children know how to work and learn collaboratively. Children need to be taught the skills for successful group learning such as co-operation, sharing, asking questions, helping and listening. Needless to say, these skills are an integral part of the early childhood setting and form part of the general classroom climate and ethos. However, teachers can deliberately structure work in pairs or small groups, where the goal of the lesson is made explicit, and where social skills are taught and refined.

Play

Play is regarded by leading theorists and practitioners as being a key activity in the early years of schooling. Play activities promote the development of the whole child. Through play children gather new information, test it against prior knowledge, learn new skills and practice old ones.

As children engage in play they are integrating competencies and skills and creating meaning from within, rather than imitating external models. Play enables children to explore their world both symbolically and socially and develops cultural understandings. It helps children express their thoughts and feelings and provides opportunities to meet and solve problems.

Teachers can support children's learning through play by responding to children's interests and prior knowledge and using these to orchestrate opportunities which will match and stretch children's development. Most importantly, play needs to occur within suitable contexts planned by the teacher. Teachers must be prepared to scaffold learning, that is, recognise opportunities to assist in meaning making, and to provide time for children to develop an idea in depth.

Using projects

Project work is described as an in-depth investigation of a topic of interest (Katz and Chard, 1989). The topic may evolve from the children or the teacher and can be completed by small groups of children, an individual or the whole class. Projects are areas of interest which are closely related to the child's experience and which warrant deliberate research into finding answers to particular questions. They are most successful when real world topics are studied and when children can be involved in excursions, or visits as a personal experience upon which to build further investigations and activities.

The length of time a project is completed should be very flexible, however a reasonable amount of time should be allocated so that the topic can be investigated in depth. Projects are a way of integrating the curriculum and for children to apply skills which are taught in more systematic ways. Children may reflect their learning and understanding of a topic through illustrating, writing, making constructions, dramatic play, music and movement. In projects teachers are particularly concerned with process rather than the finished product. Projects often lead naturally to collaborative learning, as small groups centre on a particular interest.

Conclusion

The strategies and processes discussed are means of moving children along the path of independent learning. In the past independence has been equated with being self sufficient in a physical sense. However, Vygotsky's notion of independent learning refers to the acquisition of skills and processes which enable children to function alone. Hence, what a child does with assistance now is what he/she will do independently later. The assistance and support contributes to the child's development. Vygotsky sees children as making meaning from experiences planned by the teacher, through social interaction and language. The teacher takes on a mediational relationship, guiding and assisting the child in discovery which leads to development. The role of the teacher is to challenge children to be engaged in activities that extend them beyond the known, and to ensure that this learning is supported so children experience success.

Teaching for understanding does not come as a 'bag of tricks'. It takes deep understanding of learning and teaching together with knowledge of the learner. In the past young children's potential for complex learning has been largely underestimated. Many tasks children are asked to complete are prescriptive and limiting and lack educational purpose and relevance. 'Good teaching' requires teachers to develop challenging and meaningful experiences; allow children choice to follow interests; accurately assess children's strengths and weaknesses and build on these; encourage children's self confidence and risk taking; and to build a range of pedagogical skills which stretches children to their full potential.

References

- Bodrova, E., & Leong, D. (1996). *Tools of the mind: The Vygotskian approach to Early Childhood Education*. New Jersey: Prentice Hall.
- Darling-Hammond, L. (1996). The right to learn and the advancement of teaching: Research, policy and practice for democratic education. *Educational Researcher*, 25(6), 5-17.
- Dockett, S. (1995). Children as theorists: Developing a theory of mind. In M. Fleer (Ed), *DAPcentism: Challenging Developmentally Appropriate Practice*. Watson, ACT: AAEC Inc.
- Edwards, D. & Mercer, N. (1987). *Common knowledge. The development of understanding in the classroom*. London: Methuen.

Fleer, M. (Ed). *DAPcentism: Challenging Developmentally Appropriate Practice*.
Watson, ACT: AAEC Inc.

Katz, L., & Chard, S. (1989). *Engaging children's minds: The project approach*.
Norwood, NJ: Ablex.

Cooperative skills and pro-social behaviour: How do your games measure up?

Lynley Campbell

Introduction

While young children are egocentric by nature, educators are aware that as they grow older, they need to develop into social beings who can get along in society. It is assumed therefore, that the teaching of social skills and pro-social behaviours are essential elements in a child's educational development. However, how often do we hear: Why can't they share? Why won't they get along? Why can't they work it out? Perhaps some children have never been adequately taught how to comprehend, utilize and internalize cooperative values and concepts (Deline, 1991). Surely social skills and pro-social behaviours should be taught like any other skills. Physical education provides an excellent medium for introducing a variety of such skills. This paper identifies the value of games in an educational program and specifically discusses their potential to enhance children's cooperative skills and pro-social behaviours. In addition, a variety of cooperative games suitable for young children will be outlined.

The values of games

Games are an integral part of movement programs for young children. They can make a valuable contribution to the child's total development. Through games, children can apply newly learned skills in a meaningful way. In fact, many motor skill lessons culminate in the playing of a minor game for this reason. Games provide opportunities for children to run, dodge, stop and change direction whilst sharing a space with other children. These activities promote large muscle development, fitness and spatial awareness. Social skills can be fostered through the games experience. The team nature of games requires children to work together, follow a leader or wait for a turn. As children learn to understand the game, follow its rules and patterns of play, cognitive development is enhanced. Thus, the playing of games provides opportunities for development in the psychomotor, affective and cognitive domains. (Pangrazi & Dauer, 1992).

However, whilst games can have positive benefits, teachers need to be aware that games can also send negative messages to children. For example, using games which compare children and find 'winners' may cause jealousies, hurt feelings, erode self esteem and eventually lead to negative feelings about physical activity generally. Moreover, games which have low levels of participation or eliminate participants, are likely to discourage some children from further involvement. Hence, teachers should be encouraged to reflect on the nature of games included in their program. It is important to develop positive attitudes about physical activity from a young age and therefore, the cooperative rather than the competitive nature of games should be highlighted at the early childhood level.

Whilst games have the potential to develop the whole child, it would appear that many teachers focus primarily on the psychomotor outcomes of the games experience. The development of fundamental movement skills and fitness benefits are often the only cited learning outcomes from such experiences. The scope of games to promote children's social and emotional development is often neglected. Over the last decade, educational professionals have become increasingly familiar with the term pro-social development. As educational programs change to better meet the needs of all students, greater attention has been given to the deliberate teaching of positive social behaviours. Advocates of pro-social development fully support cooperative learning as a process to be used to enhance children's abilities to interact positively with others. "In cooperative learning, students are arranged in groups of heterogeneous ability levels in which they work together to accomplish shared and common goals" (Bauwens & Hourcade, 1995, p47). This process necessitates effective communication, mutual compromise, fair play, honesty and teamwork.

Certainly, the very nature of games makes them an ideal cooperative learning experience.

Cooperative games and the development of pro-social behaviours

Cooperative games are characterized by their emphasis on group interaction and positive socialization. They provide opportunities for children to develop specific social skills and can be varied to meet the ages and specific requirements of the participants. According to Sambhava and Luvmour (1990), they are tools which need to be used with skill and sensitivity. Several authors highlight the possible benefits of such games. Orlick (1978), claims that because competition is de-emphasized in cooperative games, children's levels of anxiety, physical harm and the sense of losing are diminished leaving them more satisfied with the games experience. Deline (1991), believes communication, compromise, honesty, sportsmanship and team-work can be practiced and learnt through such games. Another premise is that cooperative games can be used as instruments to ease tensions (intra-group and multicultural), both in the classroom and out in the playground (Sambhava & Luvmour, 1990). When combined with other conflict resolution techniques, these authors suggest that games of this type can serve both diagnostic and remedial purposes.

The potential of cooperative games to assist children in dealing with the process of risk is central to the work of Rohnke (1988, 1995). This author considers risk as being normal in the daily lives of all human beings. He believes that rather than shielding children from risk, the educational program has a responsibility to educate children about the importance of risk taking for personal growth and development. Cooperative games are seen as having the potential to introduce individuals to varying degrees of risk in 'safe' situations. This belief is supported by Glover & Midura (1992), who suggest that in cooperative games or activities, risk taking may be elicited through problem solving and decision making. As group members solve problems together and make successful decisions, individual and group confidence grows. With it grows the desire to take risks (intellectual, physical or emotional).

Cooperative games suitable for young children

Whilst cooperative games can serve a variety of specific purposes, for instance as ice-breakers, for name learning and as concentration intensifiers, it is the social dynamics required in each game which is most important. For the purposes of this paper, the examples of cooperative games will be classified under three broad headings:

1. Group initiatives.
2. Group problem solving.
3. Group communication.

Group initiative games

Games included in this category involve the cooperative effort of a number of participants working together to achieve a common goal. As such they encourage members to work as a team, support and help each other. Members may need to compromise, give each other encouragement and realize everyone is important in attaining the goal.

Hoop Walk. Three or four children inside one hoop. Aim to move as a unit around a given course.

Hoop Shuffle. Four to six children join hands in a circle with a hoop suspended on one child's arm. Aim to send hoop around the circle without breaking the chain.

Blanket Catch. Six to eight children hold edge of blanket on which a ball is placed. Cooperatively toss and catch the ball in the blanket.

Rope Circle Pullup. Large rope tied at its ends to form a circle. Group of six to eight seated in circle around rope. All pull on rope attempting to stand at same time.

Rolling Logs. Partners lie stretched on floor toe to toe, heads in opposite directions. Attempt to roll across floor keeping toes touching.

Musical Chairs. Played in the usual way until a chair is removed. Players left without a chair must sit on someone else's lap.

Group problem solving games

Games which require group members to work together to solve a particular problem. As there may be a variety of possible solutions to the problem, critical thinking may be promoted. Such games encourage questioning, exploration, invention, divergent thinking and creativity.

Moving House. Groups of three to four with a selection of equipment: hoops, ropes, boxes, beanbags, buckets, balls. Group to transport and use these as stepping stones to cross a river without leaving anyone or any equipment behind.

Stepping Stones. Groups of four or five. Four beanbags per group. Use beanbags as stepping stones to get group from point A to B.

Untangle. Group of eight to ten standing in circle. Join hands but not with person on either side. Try to untangle without letting go hands.

Handcuffed. Group of four to five children. One hides their eyes. Others join hands and make a knot. One opens eyes and tries to untangle the knot without breaking grips.

Shape Guess. Groups of four to six. Each group uses their bodies to create a shape e.g. house, giraffe. Other groups must guess their shape.

Group communication games

Games which encourage group members to exchange or share feelings, thoughts or information. They require children to communicate and to listen to others. Attention can be given to voice tone and manner of speaking.

Bench Shuffle. Several children stand on bench. Children to re-arrange themselves on bench according to height, age, shoe size, and children change places etc. without touching the floor.

Blindfold Trail. Children in pairs, one blindfolded. Establish a course. Child leads blindfolded partner safely around course.

Human Obstacle Course. Groups of four to six spaced in single file formation. Each person makes their body into an obstacle to be traversed. As each person in turn approaches 'an obstacle' they are directed by the 'obstacle' how they are to pass e.g. crawl under, leap over or hop around.

Musical Letters/Shapes. When music stops teacher calls a number e.g. 3, and a letter, e.g. A. Children form groups of three and make the letter 'A' with their bodies.

Conclusion

This paper has discussed the use of games to promote children's social skills and pro-social behaviours. It is often difficult for young children to play and work well in a group setting. Their experiences in cooperative games can provide opportunities for them to work out relationship problems with their peers. Through cooperative games, children learn to work together to achieve a common goal. They learn to solve problems as a group and to communicate with one another. Teachers and parents have a responsibility to develop children's social skills and behaviours. Cooperative games should be considered as useful tools to achieve these ends.

References

- Bauwens, J., & Hourcade, J. (1995). *Cooperative teaching. Rebuilding the school-house for all students*. Austen, Texas: Pro-ed, Inc.
- Deline, J. (1991). Why... Can't they get along? *Journal of Physical Education, Recreation and Dance*, 62(1), 21-26.
- Glover, D. R., & Midura, D.W. (1992). *Team building through physical challenges*. Champaign, Illinois: Human Kinetic Publishers.
- Orlick, T. (1978). *The cooperative sports and games book*. New York: Pantheon Books.
- Pangrazi, R. P., & Dauer, V. P. (1992). *Physical education for elementary school children*. New York, New York: MacMillan Publishing Company.
- Rohnke, K. (1988). *Silver bullets. A guide to initiative problems, adventure games, stunts and trust activities*. Hamilton, Massachusetts: Project Adventure, Inc.

Rohnke, K. (1995). *Quicksilver: adventure games, initiative problems, trust activities and a guide to effective leadership*. Dubuque, Iowa: Kendall/Hunt.

Sambhava, & Luvmour, J. (1990). *Everyone wins! Cooperative games and activities*. Philadelphia, PA: New Society Publishers.

Young scientist in the kitchen

Judith Cousins

Introduction

As scientists, children observe the growth of food, the physical changes that take place when food is prepared, and the effects of food on the growth of humans and animals. (Lind, 1991, p.136)

Food is such a part of a young child's life that not to include it in any programme for children is to waste intrinsic motivation, curiosity, enthusiasm and valuable learning opportunities. The foods children eat affect their growth, development, ability to learn and their behaviour, while early experiences with food may well lay the foundation for lifelong eating habits.

For years many teachers have realised the importance of including cooking activities among the wealth of experiences they offer young children. Some Centres and junior classrooms have regular cooking sessions once a week while others use cooking to support special occasions, such as Easter, Christmas etc. The learning to be gained from such activities can be used to link different learning areas but often the science skills and knowledge to be developed from such experiences are overlooked.

This paper will consider the science learnings to be drawn from food activities across the range of children in early childhood settings.

Infants and toddlers

Young children in childcare situations are at the exploratory stage of learning- in which most objects find their mouth. They will explore the food that is presented to them through touching, smelling and tasting, which is the early beginnings of developing the science skill of observation. Food is also explored through mashing, mixing, dropping and crushing. Quite young children can successfully manipulate food into their mouths, first using their fingers and later a spoon.

What learning is occurring? Simple changes in food can be observed through mashing a solid piece of pumpkin to a mashed pile, from a slice of apple to grated apple, from separate items in the dish to a mixture. The difference between hot and cold is being considered with instructions to 'blow on it to make it cool', and persistence is being fostered by encouraging the child to keep trying to scoop up the food onto the spoon.

Three and four year olds

With developing manipulation skills this group can be more involved in food preparation activities. Learning to spread the margarine to make a sandwich is not easy but is satisfying to achieve, experimenting with simple recipes can be seen as early investigating and following directions to turn cream into butter can cause amazement and delight.

The introduction of recipe charts with pictures to guide the experience is the start of early literacy, in a relevant way. Taking turns to stir and shake develops cooperation, and play situations with cooking as a theme enhance social skills.

The science skill of measuring ingredients begins here as children collect a cup of flour, a teaspoon of jam, half an apple. Skills of classifying (different fruits), sequencing (steps in the recipe), communicating (telling each other what happened) are all being developed through the manipulation of food.

Pre primary children

The home corner often becomes a hive of activity as young cooks 'play out' preparing meals, as experiences that have been done under teacher supervision are re-visited in a social drama setting.

The use of 'fruit time' lends itself to many food science activities. The preparation of the fruit is often allocated to a visiting parent but it can be a worthwhile experience for a child to act as assistant. Helping to peel the oranges, cut the apples, peel and slice the bananas develops manipulation skills and also a feeling of self esteem in being 'useful'.

Children of this age can learn to cook quite sophisticated recipes under the supervision of an adult. Making pizzas, gingerbread men, chocolate crackles and soup all teach children understandings about food. Allowing children to invent a recipe encourages creativity, deciding how to make the bread dough less sticky develops problem-solving skills, while counting to make sure there is one for everyone refines maths skills. As McIntyre (1984, p.110) says, "As they (children) practice kitchen techniques, they also develop ideas about measurement, and mass, and they get a chance to observe physical and chemical changes in the food being prepared."

Food science and the student outcome statements

The latest guidelines for teachers in Australia are the Student Outcome Statements, developed for each of the eight learning areas. The Science Outcome Statements are divided into five strands, one of which is 'Working Scientifically, the process strand. In this strand children are encouraged to plan, conduct and evaluate investigations. Cooking can well be seen as an investigation. Planning how to make a cake, followed by carrying out the plan and then tasting the results is an science investigation, well suited to young children.

The conceptual strand of Natural and Processed Materials makes links with food science simple to achieve. Within this strand the substrands of:

- Materials and their uses;
- Structure and properties; and,
- Reactions and change

all suggest ideas for food science experiences.

Materials and their uses. The way in which we use different foods can be examined and discussed. Some foods are eaten raw, others are cooked, with some foods we eat the roots, others the leaves, some the stalks.

Why we need food can be developed at a simple level through talking of energy sources.

Structure and properties. The structure of plants can be highlighted along with the properties of some foods. Classifying foods into solids and liquids leads to discussion on the properties of each, while tasting foods to classify into sweet, sour, bitter and salty can be linked with information about body parts and functions, e.g. the tongue. Listing differences between raw and cooked food can provide understanding about the structure of foods.

Reactions and change. This is a natural aspect of cooking activities. Changes caused through heating (popcorn), freezing (jelly), boiling (eggs), and steaming (rice), give rise to observations of changes to colour, texture, taste, smell and size.

Chemical changes often occur when different substances are combined or are altered to make a new substance. This is part of the process when a cake is cooked. When chemical changes occur they are generally not reversible. Some food can be changed so that it looks different but it is still the same substance, for example, when butter is melted. The substance has changed from a solid to a liquid yet it is still butter and the change can be reversed.

Growing foods

The establishment of a small vegetable garden shows children that food does not just appear in packets. The excitement of planting corn, measuring the weekly growth using string, recording this growth on simple graphs, observing the changes in leaf size and colour, and seeing the emerging cobs, which are finally picked and cooked can be a memorable experience for young children. The changes in this life cycle from tiny seed to tall plant producing a seed is powerful learning. Science skills of observing, predicting, measuring, and space/time relationships are all developed through this experience.

The role of questioning

Using questions to provoke thoughtful responses during food science activities is another strategy teachers can use to illicit meaningful learning. Open-ended questions such as "What do you think might happen if we put our mixture in the

fridge?” and directed questions such as, “How can we make this mixture taste sweeter?” encourage children to consider what they are doing and the likely result of their actions.

“Why” questions are often difficult for young children to answer, though they can be phrased so pupils will respond at their level of understanding, which can guide the teacher in the planning of further activities. Questions such as “Why are there bubbles in it?”, “Why is it all runny?” “Why does it stick to the side of the bowl?” all promote discussion and thinking.

Links to other learning areas

Language. Language flows naturally when children are actively engaged in interesting experiences. Listening to the story of the Gingerbread Man and then making a figure, shaping the body, adding the physical features, smelling the flavour, seeing the change in shape through heating... all give rise to discussion, comments, and questions. As Scott (1992, p.1) says, “While investigating, children have many opportunities to reconstruct their experiences: to use language to make sense of what might otherwise be chaotic impressions.”

Technology and Enterprise. Food science experiences can also be readily linked to the Technology and Enterprise Student Outcome Statements. Here the process strand is ‘Designing, making and appraising’. Making a sandwich can be related to the substrand of ‘devising’ just as ‘changing a plan to overcome a simple problem’ might involve substituting one ingredient for another and ‘identifying difficulties’ might be developed through considering ways to unfreeze a cool drink.

Society and the Environment. Within the ‘Culture’ strand children can begin to appreciate that people around the world eat different types of foods and that this is influenced by environmental issues. The diversity of food preparation methods, eating habits and styles all make for interesting comparisons.

The Arts. The use of food in art activities can be stimulating and fun for young children. Making stencils using vegetable leaves and prints from apples and potatoes, as well as including drawing of plants and prepared meals during painting time all extends the learning experiences related to food.

Conclusion

Changes in society mean that many children regularly eat meals that are pre-packed and come in boxes, packages and bags. The rushed life-styles of some people mean that the leisurely preparation on an evening meal, to be eaten by the whole family around the kitchen table, is now a thing of the past. Many children now miss out on helping to cook, seeing food changed from raw substances to tasty, appetising meals, smelling the aromas in the kitchen, scraping the cake bowl, and so on. Teachers can readily include food experiences into classrooms and the links to science and other learning areas can be easily forged.

Although science is often fun, it isn't always tasty as well." (McIntyre, 1984, p.111).

The science learnings to be gained from food experiences are many and along the way numerous valuable life skills can be fostered.

References

- McIntyre, M. (1984). *From soup to science: Early childhood and science*. Washington: National Science Teachers' Association.
- Russo, S. (1996). Questioning the cook. *Investigating Australian primary and junior Science Journal* 12(3). pp-24-25.
- Scott, J. (1992). (Ed.) *Science and language links: Classroom implications*. Carlton: Australian Reading Association.
- Sharp, H. and Griffin, J. (1994.) *Food and cooking*. Sydney: Science Teachers Association of New South Wales.
- Seelig, T. (1994). *Incredible edible science*. New York: W. H. Freeman.
- Taylor, B. (1993). *Science everywhere: Opportunities for very young children*. Fort Worth: Harcourt Brace Jovanovich.

Brain gym: What is it and does it work?

Loraine Corrie and Amanda Blackmore

Introduction

In Western Australia, an array of programs is available for teachers who are concerned about their students' achievement and wish either to prevent failure or to remedy problems. There is no central coordination of these programs, and there are no official standards set for them. Often the people who promote these programs come neither from the State Education Department nor from one of the Universities, and none of them have to provide any research evidence for the efficacy of their programs. These programs are conducted on an adhoc basis, and anybody can set up such a program. All they need to do is to provide attractive advertising to schools.

Often news about these programs is spread by the popular press, television and word of mouth. Parents and teachers whose children improve while engaged in such programs enthusiastically recommend them to other parents and teachers, and so the programs gain popularity.

As professional educators, teachers and principals have the responsibility to subject all programs to critical scrutiny. Teachers have a limited number of hours with their children, and a great many programs compete for places in the curriculum. Therefore, it is important for teachers to keep themselves well informed about the pro-

grams being offered. Teachers need to find out about the content of the program, and available research evidence that supports its use. When principals and teachers have the facts, then they can make informed and responsible decisions about whether the program in question will benefit their children, and whether the program is worth the investment of time, energy and resources it requires.

Currently one program that is attracting attention is "Brain Gym". The Learning Difficulties section of the Education Department of Western Australia receives many inquiries about Brain Gym, which is a program that has been included in the curriculum of some primary schools in Western Australia. We have written this paper to help principals and teachers decide whether or not to include Brain Gym (or similar programs) in the curriculum. In this paper we describe Brain Gym and discuss research literature that shows Brain Gym is a controversial and unproven program for normally-developing children, or children with learning difficulties.

What is Brain Gym?

"Brain Gym" is the registered trade mark of the Educational Kinesiology Foundation, sometimes known as Edu-Kinesthetics, or Edu-K. It was designed by Dennison in 1981, and draws on yoga, acupuncture, psychology and brain research (Sifft, 1990). Brain Gym is used by some teachers for all children in a class every day. Other teachers use the movements more selectively, for example, they use the movement for reading just before reading time.

The Educational Kinesiology Foundation sells books and materials about Brain Gym, and runs courses in Brain Gym for people who want to implement the program. Professional level courses leading to a certification course qualify individuals to teach Brain Gym to others (Dennison, 1986). A video about Brain Gym called "Education in Motion" is available (McGovern, 1992).

The Educational Kinesiology program was one of 12 programs selected in 1991 by the National Learning Foundation in America (an initiative of the White House Task Force on Innovative Learning). The 12 programs were judged to be successful "Learning Innovations" (McGovern, 1992).

How does Brain Gym work?

Brain Gym exercises are designed for normally-developing children, and children with learning difficulties. The "simple and enjoyable exercises" (Dennison, 1996, p.0) are said to enhance the child's experience of whole brain learning. It is claimed that Brain Gym helps normally developing children feel more open to learning, more relaxed and more able to concentrate.

Edu-K deals with three dimensions of brain function: laterality, focusing, and centering. Dennison says that children with learning difficulties have problems with the laterality dimension, which concerns the ability to integrate right and left brain activity (Sifft, 1990). The lack of integration of right brain and left brain leaves children in a "switched-off state" (Murray-Harvey, 1989, p.21). Level of brain integration is diagnosed by muscle testing, which isolates and tests a muscle to see if it is weak (switched off) or strong (switched on).

When individuals have been diagnosed with weak muscles, then brain integration is developed by using Laterality Repatterning. Repatterning involves exercises such as humming and looking to the left while cross-crawling (Murray-Harvey, 1989).

Brain Gym exercises give "high mental fitness energy all day long" (Dennison, 1986 p.1). Material promoting the program promises that when children do their Brain Gym exercises then they "love to learn"; that stress and tension will be relieved; that sadness, confusion or anger will be overcome; and that brain hemispheres will work together (Dennison, 1986). Examples of the types of exercises used are shown in table 1.

TABLE 1. Examples of Brain Gym exercises (from Dennison & Dennison, 1986)

Exercise	Description	Rationale
Cross crawl and Skip-a-cross	Skip or crawl so that when one arm moves, the leg on the opposite side moves at the same time. Eyes are moved in all directions.	Brain hemispheres work together so that the child feels open to learning new things.
Belly Breathing	Put your hand on your stomach. Blow out the old air. Take a slow, deep breath. Your hand softly rises as you inhale and falls as you exhale.	Helps food to digest better; do it when you feel tense or nervous.

TABLE 1. Examples of Brain Gym exercises (from Dennison & Dennison, 1986)

Exercise	Description	Rationale
Brain Buttons	Hold the navel and rub deeply just below the collarbone on either side of the sternum.	Reduces the strain of reading or other uses of the eyes.
Earth Buttons	Hold two fingers under the lower lip and rest the other hand on the pubic bone. Breathe the energy up the body.	Helps rapid calculating.
Space Buttons	Put two fingers above the upper lip and the other hand on the tail-bone. Breathe the energy up the spine.	Helps clear the head.
Positive Buttons	Hold the forehead halfway between the eyebrows and hairline.	Helps feel peaceful about planning the future.

Dennison says that the solutions to children's learning difficulties are simple and quick. The results of repatterning and Brain Gym are said to be "often immediate and profound" (Dennison, 1986, p.1).

Theoretical basis and research evidence

Table 1 shows the range of activities subsumed under the heading of Brain Gym. Some, such as Belly Breathing, are simple relaxation exercises. Others are based on unsubstantiated beliefs about energy flowing through the body, and the ways in which the two hemispheres of the brain respond to body movements. Dennison talks about his beliefs as if they are facts, and this has attracted criticism by other authors and organisations.

Dennison developed Brain Gym from perceptual-motor programs to remediate learning difficulties through movement patterning. Movement patterning uses Delacato's cross-crawl research, and develops whole-brain learning through the use of motor activities to facilitate neurological organisation. Movement patterning is part of a group of approaches that seek to improve the functioning of part of the central nervous system (Silver, 1987).

The American Academy of Paediatrics and other organisations have expressed concern about the effectiveness of patterning since the 1960s (Silver, 1995). In 1982 the American Academy of Paediatrics' policy statement said that patterning treatment was unsubstantiated and claims were unproven.

In 1996 the Australian National Health and Medical Research Council (NHMRC) reported that a methodologically rigorous controlled trial demonstrated that patterning provides no benefit to children. NHMRC (1996 p.50) concluded that "There is no neurological or physiological basis for this type of intervention, and numerous organisations and institutions have dismissed it as being of no benefit".

Murray-Harvey (1989) says that Dennison's view of functions of the brain is oversimplistic. Research into the brain is highly complex and much is still unknown. Dennison states his ideas as if they have been proven, but many of the topics are still the subject of disagreement by researchers in the field. For example, Dennison claims that over 50% of people with learning disabilities have cross or mixed-dominance. In addition, Dennison claims to have discovered a blocked dominant pattern, which was identified through muscle-checking tasks. These claims have been criticised by researchers (Murray-Harvey, 1989, cites Cummins, 1988; Gaddes, 1985).

Dennison's claim that muscle checking can indicate hemispheric activity is judged to be purely speculative (Murray-Harvey, 1989). Dennison's view of laterality and dominance is considered to be overly-simplistic and imprecise, and it is not accepted as a reasonable explanation of learning difficulties.

Dennison's idea that exercises can "switch-on" the brain, and promote brain integration is criticised as being too vague (Murray-Harvey, 1989). There is no evidence that the exercises make any difference to reading, concentration or school work (NHMRC, 1996).

It seems that no research study has investigated the effects of Brain Gym and learning, either in normally developing children, or children with learning difficulties. One study (Khalsa, 1988) examined the effects on static balance of learning disabled students. This study has been criticised for flaws in the research methods (Murray-Harvey, 1989).

Discussion

Often parents and teachers hear about new ways to help children through the media. Glowing testimonial reports or anecdotal comments may be the only material available to support the claims made by the program promoters. New approaches offer hope, but educators must be cautious about accepting a program that has not been thoroughly researched and proven effective. Principals and teachers must ask to see research evidence; relying on other organisations or bodies (such as the White House Task Force on Innovative Learning) may not help.

Principals and teachers would be wise to:

- avoid programs that rely on anecdotal stories, case histories or testimonials, rather than research evidence that is published in academic journals. Anecdotes and testimonials are very persuasive, but they are not scientific evidence and do not establish that the intervention is valid. When teachers invest time, effort and money into a program because they believe it works, then they are likely to perceive improvements that are not there (this is known as the Placebo Effect).
- avoid programs that promoters justify on the grounds that they are novel and therefore not supported by professionals. Valid approaches will be based on reputable theory, supported with research using standard methods and published in academic journals. Professionals do not discredit proven innovations just because they are new or different.
- avoid programs that provide information only through popular books, newspapers, magazines or television shows. Principals and teachers should not include programs because other people use them; other people may not have checked out the program's credentials.
- avoid programs that offer quick and easy fixes. Children require high-quality educational programs provided by good professional educators, and sound progress may not be rapid.

Summary

The publicity material promoting programs such as Brain Gym sounds convincing, and schools may be seduced into thinking that the program has been proven with scientific research. But no research evidence supports the claims that Brain Gym helps children by changing neurological organisation of the brain. No research studies show that children can be helped to learn when they use Brain Gym. Claims

about the effectiveness of the program depend on anecdotal stories and testimonials. Much of the material about Brain Gym has been published by the person selling the program, and it has not been published in academic journals.

Principals and teachers are advised not to include programs in the curriculum that are unsubstantiated by research evidence. It is likely that programs such as Brain Gym will waste children's time and use up precious resources. Implementing a program such as Brain Gym means that vulnerable children may not have their individual needs met.

At times programs become popular because they are appealing and different, but some programs are useless and even dangerous. They are dangerous because if schools use programs such as Brain Gym, then the system may not provide resources to implement proper educational interventions needed by individuals. Later if children fail, then the system may blame the children, or the teachers.

References

- Khalsa, G.K. (1988). Effect of Educational Kinesiology on static balance of learning disabled students. *Perceptual and Motor Skills*, 67, 51-54.
- McGovern, N. (1992). Brain Gym. *Learning Assistance Teachers' Association Newsletter*, Spring, 8-12.
- Murray-Harvey, R. (1989). Edu-Kinesthetics: Fact or fiction? A preliminary investigation. *Australasian Journal of Special Education* 13(1) 20-26.
- National Health and Medical Research Council (1996). *Attention Deficit Hyperactivity Disorder (ADHD) Consultation Document*. Canberra: NHMRC
- Sift, J.M. (1990). *Educational kinesiology: Empowering students and athletes through movement*. Paper presented at the 57th Annual Conference of the American Alliance for Health, Physical Education, Recreation, and Dance in New Orleans, April, 1990.
- Silver, L.B. (1987). The "Magic Cure": A review of current controversial approaches for treating learning disabilities. *Journal of Learning Disabilities* 20, 498-504.
- Silver, L.B. (1995). Controversial therapies. *Journal of Child Neurology*, 10(1), 96-100.

Flowers are red with green stems, aren't they? Fostering young children's creativity in art

Tricia Walsh

Introduction

Once upon a time there was a little girl
who loved to draw
who went to school
who had a teacher
who showed her how to draw a flower.
The End.

If, like Picasso, you wished you could draw as well as a child, you are probably a person who appreciates and delights in the art work of children. If, as an educator, you aim to stimulate the imagination and creativity of the children in your care, you will be willing to trust the child's inherent creative ability.

Research into children's art has been one of the most exciting results of twentieth century interest in child development. Today, we understand that children think quite differently from adults, and have needs and wants peculiar to childhood; art

for the child is self expression, while the adult is more concerned with aesthetics and perceptions of beauty.

It is the purpose of this paper to outline the developmental stages of young children's art so that we, as educators, can put our trust in children's ability to express themselves.

In looking briefly at the comprehensive investigations done in children's art, we can see that children pass through various stages. Not all children move through the stages at the same time, but generally, the stages are sequential. Also the stages are fluid and fuse into each other. Individual expression grows out of the child's opportunity for development, and each stage reflects a growth in creativity, thought processes, knowledge of the environment, motor skills and self concept.

Patterns of development found in children's art are universal in the symbols that are used. Development is sequential, and each stage displays increasing purpose and clarity. Further, each stage is influenced by the previous lines or symbols that were made. We must see the whole child because creative development is linked directly to children's mental, physical and emotional growth.

The following comments summarise the stages of development of young children's drawings as recorded by Lowenfeld and Brittain (1975) and others who have observed the art work of young children over many years.

Scribbling stage

Children as young as twelve months will scribble on anything, with anything; fingers in food, a stick in the sand, or steam on a mirror. The opportunity to use crayon, chalk and paint helps to give life to this normal and vital aspect of children's creative development. The lines created at this stage, appear at first glance to be random and of varying length, position and relation to each other.

However, in her work with young children, Rhoda Kellogg identified about twenty different kinds of scribbles. Kellogg's work suggests that what seemed to be meaningless and random, is orderly, meaningful and structured and part of a hierarchical organisation. The child tends to locate the scribbles in particular positions on a page; Kellogg referred to this as a 'placement pattern'. (Santrock, 1984, p.171). Within the scribble stage, the child's work becomes better organised and more

sophisticated. Pairs of shapes move from being drawn separately, to overlapping and then to one shape being contained within the other.

As the scribbling becomes more controlled, the child acquires the ability to repeat certain shapes. A common factor at this stage is the emergence of the oval shape within the array of lines of each drawing. Coinciding with the discovery of this shape is the muscular control, the coordination of hand and eye, the power to produce the shape at will and the desire to use it. Descriptions by the child of what the oval represents, provide many permutations - animals, a dwelling, or an important person in the child's life.

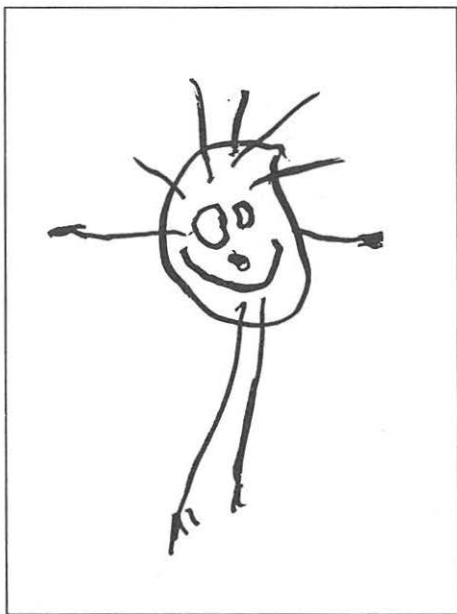


FIGURE 1. "My Daddy" by Claire aged 2 years 6 months.

Pre-schematic stage

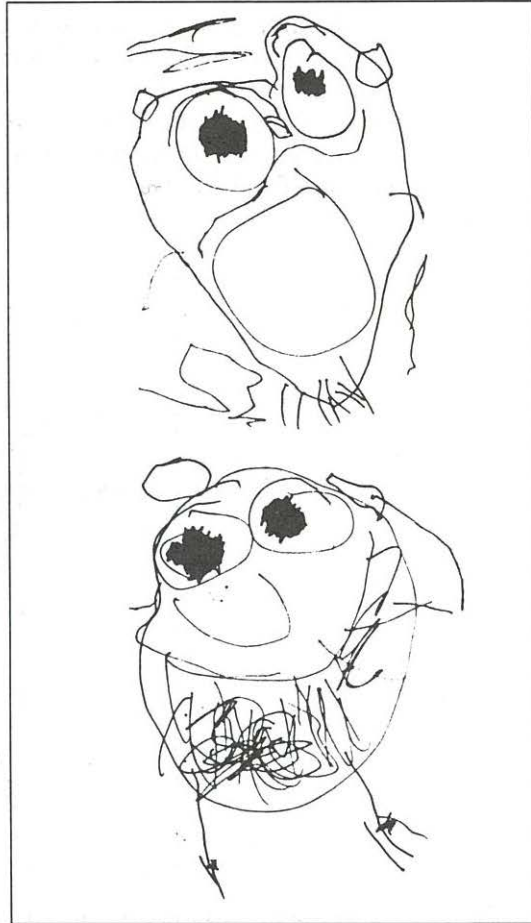


FIGURE 2. Claire aged 3 years and 4 months drew two pictures sequentially: First “An owl saying hoot, hoot!”, and second “An owl with scritchy-scratchy feathers”.

Lines are added to the perimeter of the oval to produce a radial. The radial is refined to the point where lines and dots represent facial features and limbs, and the child has achieved the symbol of the human person. Given that most of children's experi-

ences are connected with people, the children are taking into account the world around them and are reflecting something within their experience. However, as shown in figure 1, children are not imitating what they see, rather they are using symbols to express themselves. Children enjoy opportunities to talk and share their explanations with others. Figure 1 shows an oval with radial lines for hair and limbs.

Gradually relationships between the events of an experience are introduced. In figure 2 we see the oval-headed figure emerging from the early scribbling experiences. Generally this global symbolic interpretation of the pre-schematic stage can be found in children between the ages of three years to children of seven or eight, although given their readiness and the opportunity to express themselves, some are younger when they commence. Often an aspect that may be important to the child is enlarged or exaggerated, for example a drawing of 'Mummy and Me' might find 'Me' much larger than 'Mummy'. In figure 3, we see oval shapes within ovals and Claire's increasing control of line. The importance of the chicken is shown by its size in relation to Mummy.



FIGURE 3. "Mummy and my chicken" Claire 3 years 6 months.

Schematic stage

The schemes children develop at this stage are a type of creative shorthand used to symbolise things they wish to use regularly. Children use only as much visual information as they need to get their message across. Schemes are most often recognised in drawings of people, with the same shape being drawn several times in various sizes to represent different people. Figure 4, which Emma calls "Grandma Dancing", shows particular attention to the dancing leg on the schematised figure.



FIGURE 4. "Grandma dancing" Claire aged 4 years 2 months.

Trees, houses, the sun, cars, birds are other items that become schemes, although what is drawn depends on the interests and experiences of the children and the opportunities they have to express themselves through art. The increasing control over the lines used reflects greater purpose, coordination and fine motor control.

The placement of the objects in the drawing reflects the schematic stage. Often, objects are placed alongside each other at the bottom of the page. A strip of colour at the bottom and sometimes at the top of the page, and a radial sun, can be found in

children's work of this stage. Generally, the objects relate to the child, rather than to each other. Children whose work is predominantly symbolic have made the move to more complex images and can apply an analytical approach to parts of their drawings. In figure 5, Claire represents some important body parts on her person scheme.



FIGURE 5. "My Mummy" Claire aged 4 years 3 months.

To hurry the process and suggest symbols and alignments to a child, to 'show the child how to draw', is to interfere with what children are capable of teaching themselves. In normal development, children remember and use as much of the process as they have taught themselves. Therefore, from a developmental stance, a teacher's role has more to do with understanding the creative process and providing opportunities to allow a normal process to unfold rather than 'showing how to draw'. Enrichment through experiences with a variety of media, the development of the child's senses, visual awareness, language and motor skills can do much to enhance the normal creative development of a child. All children have the ability to be creative. The spontaneity of these early stages of development comes naturally to children and provides much pleasure for them.

While there are further stages of development, the development of the symbol, with some overlap into analysis is most pertinent to the child under nine years of age. Young children use drawings as a process to make sense of their environment, to expand their frame of reference and to give expression to their understanding, rather than visual representation. Essentially it is egocentric with space relationships connected to the child. As children move out of these early stages, and are more aware of themselves as part of a larger environment, their work reflects a spatial relationship that suggests the objects relate to each other, rather than to the children.

While stages of development have been presented to assist in the understanding of the creative process, the creative process in itself is individual and unique. The children's individual thinking ability, their feelings, perceptions and reactions to the environment are central to how they show their knowledge of their environment and how they give expression to it.

Art can be a joyous tool and form of expression for the child to use and develop the creativity that is inherent in all children. Teachers can help children in the following ways:

- *show trust* in the child's natural ability and creativity;
- *be creative*—be a catalyst for the child's creative journey;
- *observe* the art the children produce. Become familiar with the characteristics of it;
- *notice* the miracle of colour with which the world is saturated. What colours will your children use to paint flowers?
- *celebrate*, encourage, display, and enjoy the variety and uniqueness of the children's pictures.

References

- Chapman, L. (1978). *Approaches to Art in Education*. New York: Harcourt Brace Jovanovich.
- Jameson, K. (1974). *Pre-School and Infant Art*. London: Studio Vista.
- Lancaster, J (Ed). (1987). *Art, Craft and Design in the Primary School*. Wiltshire, UK: NSEAD.

- Lowenfeld, V. & Brittain, W. (1975). *Creative and Mental Growth. (6th Ed)*. New York: Macmillan Publishing Co Inc.
- Santrock, J.W. & Yussen, S.R. (1984). *Children and Adolescents—A Developmental Perspective*. Dubuque, Iowa: Wm. C. Brown Publishers.

Helping young children with disabilities to achieve their full potential in an inclusive setting

Amanda Blackmore and Ping Ping Seah

Introduction

Increasingly, children with disabilities are being given the opportunity to be educated in school settings where they are included with other children who do not have disabilities. This trend is due to arguments that all children, including those with disabilities, have the right to receive education and other services in as normal and as unrestrictive an environment as possible (Foreman, 1996).

However, merely attending a school with non-disabled children is no guarantee that a child with a disability will receive the same opportunities as other children, either academically or socially. For example, Jennings, Connors, Stegman, Sankaranarayan and Mendelsohn (1985) observed 25 preschoolers with physical disabilities and 44 preschoolers without physical disabilities during free play and structured tasks. The children with disabilities were less persistent with difficult tasks, they were less goal-directed, their play was less complex, and they interacted less with their peers than the children without disabilities.

The important question, therefore, is: How can teachers best help children with disabilities to achieve their full potential in an integrated setting?

The question is a very broad one, and this paper will examine only the following aspects of it: (a) setting goals and objectives for the child with a disability, (b) using positive reinforcement to accomplish these objectives, and (c) monitoring progress towards the objectives.

Setting goals and objectives

As a teacher who is given responsibility for a child with special educational needs, you will probably quickly discover a number of areas in which you would like to see that child develop during the time that he or she is with you. There may be social and communication skills that need to be developed, such as greeting people, asking for things, saying "thank you", and sharing. There may be motor skills such as walking (with or without support), cutting with scissors, holding a pencil, and getting dressed. There may be perceptual and cognitive skills such as counting, naming colours, sorting shapes, and identifying similarities and differences between objects.

Out of all the possible skills that could be developed during the year, the teacher needs to decide which ones are the most important for each particular child. But this decision is not for the teacher to make all alone. The child's parents must also be given the opportunity to become involved in making decisions about the priorities to be set for their child. It is important that the goals chosen promote the child's independence and are functional and achievable for the child. For example, Narelle may be a young child who is capable of speaking but generally uses single words and tends to whine when she wants something. A functional skill for Narelle would be to ask for what she needs in two-word or three-word sentences. Obviously the goal must be achievable for the child. In the case of Narelle, there is reason to believe that she is capable of extending her language further, but until now she has not needed to do so because whining has usually been sufficient for her to get what she wants.

Goals are long-term (over 6 months or a year) whereas objectives are short term (over a few weeks). Initially the teacher, parents and any other professionals who are working with the child will set long-term goals for the child. Then, when these goals have been agreed upon, short-term objectives can be set. These goals and objectives form part of the Individualised Education Programme (IEP) for a child with special needs. Goals and objectives can be set in cognitive, communication, motor, social and self-help skill areas, as well as the reduction of maladaptive behaviour. Examples of such goals and objectives are shown in Table 1. In the first

column, two long-term goals are given. In the right column, three objectives corresponding to each goal are given. By meeting each objective a child will eventually attain the long-term goal

TABLE 1. Long-term goals with corresponding objectives.

Goal	Objectives
Nathan will play appropriately with other children.	<p>Nathan will share his toy with another child when given a brief verbal prompt (such as "Nathan, show Jenni your dinosaur") by an adult on 4 out of 5 occasions within 10 seconds of the prompt.</p> <p>Nathan will initiate conversation with at least three other children during activities time on 4 consecutive days.</p> <p>During the 20-minute free play time, Nathan will engage in social play with one child or with a group of children without conflict for at least 5 minutes continuously, for 3 consecutive days.</p>
Shu Ying will dress herself independently.	<p>When given a dress with a zip down the back and asked to put it on, Shu Ying will, on five consecutive occasions, put it on with no assistance other than an adult doing up the zip after the dress has been put on.</p> <p>When given her sandals and asked to put them on, Shu Ying will put on her sandals (including doing up the buckles) without any assistance on five consecutive occasions.</p> <p>When given a shirt and asked to put it on, Shu Ying will put on her shirt and do up the buttons with no adult assistance on five consecutive occasions.</p>

The objectives are much more precise than the goals. This is so that multiple observers—whether teachers, aides, or parents—can all agree when the objective

has been met. An objective has four parts: (a) the child, (b) the conditions (e.g. when given a verbal prompt, with no assistance), (c) the behaviour (e.g. share, put on sandals), and (d) the criteria for success (e.g. on three consecutive days, for at least 5 minutes). More detailed information about setting behavioural objectives is given by Wolery, Bailey and Sugai (1988) and Alberto and Troutman (1995).

Using positive reinforcement to accomplish the objectives

If a child lacks a skill necessary to meet a behavioural objective, then it needs to be taught, and the child needs to be given opportunities to practise it in as many situations as possible so that it becomes fluent and so that it generalises to all the setting in which you would like it to be practised. For example, the skill of counting can be taught in many settings (e.g. counting toes, children, trees, etc.), and the more frequent the opportunities a child has to practise this skill, the more fluent it will become. Fluency is important because nobody wants to exercise a skill if it is tedious to perform, and nobody is going to build more complex skills (e.g. addition, subtraction) on a basic skill (e.g. counting) unless the basic skill is fluent.

In an ideal world, all children would be intrinsically motivated to perform all the skills that teachers would like them to learn. But, in practice, young children and children with disabilities often need to be externally motivated because it is often quite difficult, particularly for children with disabilities, to learn and practise the skills that their teachers consider essential and because they do not understand that these skills are essential.

The ultimate aim of any reinforcement schedule is to have children performing the skills for intrinsic and natural reinforcers, and this can be done by choosing functional skills and by thinning out the reinforcers gradually. For example, Chris's teacher might teach him social skills such as eye contact and responding to greetings by delivering artificial reinforcers at first, but later on his teacher will gradually thin out the reinforcers and Chris will maintain his social skills in order to receive the natural reinforcement that it elicits from other children (i.e. attention, social play, sharing of toys). Most functional skills are associated with natural reinforcers (e.g. reading, feeding oneself, going to the toilet), and children will eventually reach the stage where they need nothing more than these natural reinforcers. But in the early stages, children with disabilities usually need more than this.

Reinforcement is defined as any consequence of a behaviour that increases that behaviour. So, for example, if praising Claire for packing up neatly results in her packing up neatly on subsequent occasions, then praise was reinforcing for Claire. But what is reinforcing for one child is not necessarily reinforcing for another. Verbally praising Graham for packing up neatly might have no effect on his behaviour next time, but giving him five might do so, whereas it might have no effect on Claire. In that case, verbal praise is reinforcing for Claire but not for Graham, whereas give-me-fives are reinforcing for Graham but not for Claire. Therefore, if one kind of reinforcement turns out not to be reinforcing after all with a particular child, you need to try others until you find one that is.

There are several ways to choose reinforcers:

1. Keep a list of reinforcers that generally work for children of the same age. For example, young children often respond to verbal praise, pats, tickles, hugs, facial expressions, access to toys, being read stories, sitting near the teacher, and playing on the computer.
2. Observe children when they are allowed to do as they please. The activities that they choose to do and the objects that they choose to play with may be useful reinforcers for them.
3. Ask children and their parents what kinds of things the children like best.
4. Give a child a reinforcer preference test. This simply involves selecting a group of about 10 objects or activities that you consider to be likely reinforcers, and presenting them to the child in pairs, asking the child to indicate which of the two he or she prefers. The items that are chosen the most often are likely to be the most reinforcing.

There are several ways to make reinforcement more effective. These are to deliver it immediately, to accompany it by feedback about the behaviour, to make it functional and natural, and to make sure that you have a range of reinforcers available to you. Each of these is discussed in turn below.

Reinforcers are more effective if they can be delivered immediately. For example, if Hamid receives a drink of milk as soon as he asks for it appropriately, then he will be more likely to make requests appropriately in future. However, if he has to wait for 3 minutes before getting it, then he may not make the link between his appropriate request and the reinforcer, and he may perform some other, less appropriate behaviour in the meantime (e.g. have an argument with a peer) and make the link between that and the reinforcer instead. For this reason, reinforcers should be chosen for their ease of delivery. A reinforcer that is not easy to deliver immediately (e.g. going outside to play in the sandpit) will be less effective than a reinforcer that

is easy to deliver immediately (e.g. a facial expression), provided, of course, that both are genuine reinforcers for the child.

Reinforcement is also more effective when accompanied by feedback specifying what was good about the behaviour. For example, if Hamid asks for a glass of milk, then being given it without any comment will be less effective than being given it with a comment such as "That was excellent the way you said 'please', Hamid. Here's your milk." On the other hand, if Hamid does not ask for milk appropriately, he needs to be given feedback to help him improve. For example, if he simply pulls an adult's sleeve and points to the fridge, then the adult needs to give him whatever level of prompt is necessary for Hamid to produce an appropriate request, while indicating the way in which his first attempt was inadequate. For example, the adult might say, "No, Hamid, that's not the way to ask for things. Tell me what it is that you want." Then, if Hamid merely says, "milk", the adult might respond by saying, "How do you ask nicely for milk?" As soon as Hamid makes an appropriate request, the adult praises him, explains why it was a good request, and gives him the milk immediately.

Reinforcers should be functional and, as far as possible, natural. For example, if the adult merely praised Hamid for asking appropriately for milk and gave him his favourite toy, the reinforcement would not be functional or natural!

It is more effective to have a range of possible reinforcers than to use only one. A child may become tired of receiving the same reinforcer repeatedly and it may lose its effectiveness.

As stated earlier, the ultimate aim is for children to practise their skills for the natural reinforcement of performing them. Therefore, activities should be designed so that they are as intrinsically motivating as possible, so that children will find them naturally reinforcing. This, of course, is common practice in preschools, but not necessarily in higher grades.

This section has dealt with the use of positive reinforcement to encourage children to practise functional behaviours. The other side of the reinforcement coin is punishment. Punishment is defined as any consequence of a behaviour that decreases its occurrence. The most common form of punishment used in schools at present is time-out. Punishment has been found to be much less desirable than positive reinforcement for a number of reasons that have been clearly documented over many years of research (described by Pierce & Epling, 1995). These reasons can be summarised briefly as follows:

1. Unlike positive reinforcement, punishment does not teach children appropriate behaviours; it merely suppresses inappropriate behaviours. In the case of time-out, the punishment actually prevents the child from learning appropriate behaviours for a time because the child is usually removed from the learning situation.
2. Punishment can lead to learned helplessness (the feeling of lack of control and inability to avoid punishment), social withdrawal, and avoidance of the situation in which punishment is administered (i.e. school).
3. Punishment can lead to aggression against the person who is administering the punishment (i.e. the teacher).
4. Punishment can lead to aggression against bystanders (i.e. the child's peers and siblings).
5. Punishment can suppress other responses, including those required for learning. In other words, a child who is punished while stopping the inappropriate behaviour, will also stop all other behaviours for a period of time, and will not be receptive to learning.

For these very powerful reasons, it is much better to find functional behaviours to replace the inappropriate ones, and to reinforce positively those behaviours using the approaches described above.

Monitoring progress

So far, the value of setting objectives and the effective use of reinforcement have been discussed. All of this raises several questions: How does a teacher know whether his or her use of reinforcement and other teaching strategies is producing progress towards the goal? How does a teacher know when to change the teaching strategies or when to change the reinforcement and try something different?

Most teachers will, of course, have a subjective impression of whether a child is doing well, but subjective impressions can be very misleading. The only way to be confident is to monitor the child's behaviour systematically over time.

In order to illustrate how this is done, an example of some work done by the second author, an early childhood teacher who is doing her Master degree in Special Education at this University will be given. Her research is on social and communication skills in young children. In the example described below, she worked with a seven-year-old boy who had language difficulties and some behaviours typical of autistic children (though he does not fit the criteria for autism). These behaviours included

kneeling on the floor and pressing his face on the carpet when the classroom teacher spoke to him, then crawling across the floor towards the teacher.

A high priority for this child was to increase his eye contact with other people. The child was observed in class and also during one-to-one sessions with her. The researcher counted the number of times the child looked at another person for 8 seconds or more, and found that he did not do this at all in class and he did it for 25% of trials with her in a one-to-one setting. Therefore, the initial objective set for him was as follows:

When given an instruction, a question, or a topic of conversation, the child will respond and give eye contact by looking at the teacher or peer for 8 seconds or more on 50% of the trials.

In order to increase eye contact, the researcher explained to the child what she wanted him to do and told him that he would be given a star (which he liked) every time he did it: "Ben, if you look at me when I am talking to you and keep looking at me till I finish talking, I will give you a star for good looking!" She then spent time working with Ben using books and colourful objects, asking him questions and giving him instructions (e.g. Ben, can you count and tell me how many animals there are in the picture of the farm? Ben, please put 5 orange tiles and 4 green tiles on the paper and arrange them in a line.) If Ben did not look at her when she said his name at the beginning of a question or instruction, the researcher gently lifted his chin to help him establish eye contact.

The percentage of questions/instructions was calculated in which Ben maintained eye contact for 8 seconds (a) in the one-to-one setting and (b) in the classroom setting. Figure 1 shows that, in the one-to-one setting, Ben maintained eye contact in 70% of questions/instructions and in the classroom setting, Ben maintained eye contact in 30% of questions/instructions.

Since the time that this work was done, the classroom teacher has continued to reinforce Ben in the classroom for "good looking" and in the subsequent 5 months he has increased further.

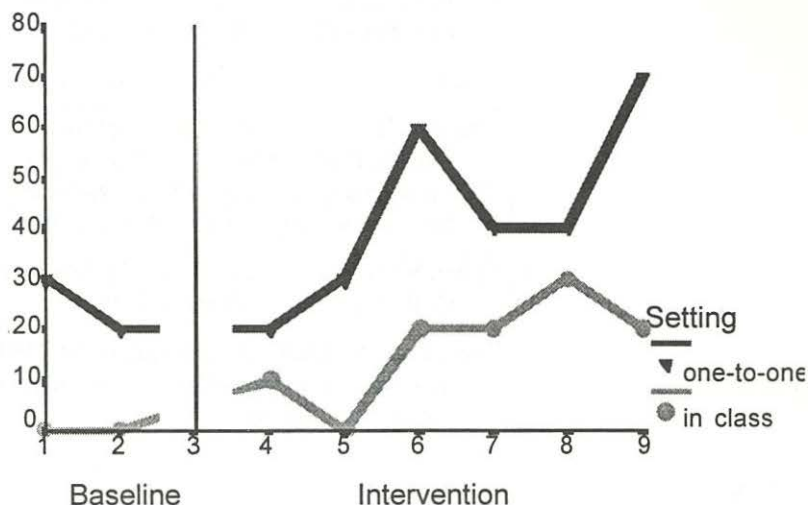


FIGURE 1. Percentage of trials on which eye contact was maintained for 8 seconds over the sessions

Conclusion

The inclusion of more and more children with disabilities into the same schools as their non-disabled peers gives both the opportunity and responsibility to make sure that these children benefit from the experience as much as possible. The success of these children in integrated settings at the early stages influences whether or not they will be allowed continued access to mainstream education. This paper has described several approaches and techniques that special educators have found highly successful in helping children with disabilities to learn and achieve their full potential.

References

- Alberto, P. A. & Troutman, A. C. (1995) *Applied behavior analysis for teachers*. (4th edition). Englewood Cliffs, New Jersey: Merrill.

- Bailey, D. B. & Wolery, M. (1992). *Teaching infants and preschoolers with disabilities. (2nd edition)*. Englewood Cliffs: Merrill.
- Foreman, P. (1996). *Integration and inclusion in action*. Sydney: Harcourt Brace.
- Jennings, K. D., Connors, R. E., Stegman, C. E., Sankaranarayan, P. & Mendelsohn, S. (1985). Mastery motivation in young preschoolers: Effect of a physical handicap and implications for educational programming. *Journal of the Division of Early Childhood*, 9, 162-169.
- Pierce, W. D. & Epling, W. F. (1995). *Behavior analysis and learning*. Englewood Cliffs, New Jersey: Prentice Hall.
- Wolery, M., Bailey, D. B., & Sugai, G. M. (1988). *Effective teaching: Principles and procedures of applied behavior analysis with exceptional students*. Boston: Allyn & Bacon.

Caregiver mediation of interactions between children with special needs and their typical peers in Child Care

Ruth Gope

The study

Educators have advocated the inclusion of children with special needs into mainstream services the late 1960s. Support has continued over the years for integration (Bricker, 1978; Guralinick & Groom, 1987; Peck, Odem & Bricker, 1993; Salisbury, 1993 and others) as a philosophy, and as a practical strategy to develop social skills. There are benefits relating to the development of social skills (Bagnato, Kontos & Neisworth, 1987; Wolery & Wilbers, 1994), especially in the early years. It is an appealing means of normalisation for the young child with special needs and his/her family (Bailey & McWilliam, 1987). Strain (1987, 1990) notes that the skills gained at an early age are valuable in future educational settings. Child Care as a suitable setting for the initial integration of children with special needs, to date, has been viewed as some kind of 'downward extension' of the mainstreaming trend in primary schools.

Over the last ten years the specific nature of Child Care as a setting that has unique features and a context that determines the nature of social interactions was considered worthy of attention (Howes, 1986; Russon, Waite & Rochester, 1989) and the notion of caregivers as mediators of interactions between children has been suggested. This contextual difference is perhaps more significant for the development

of social skills in children with special needs (Klein & Sheehan, 1987; Bailey & McWilliam, 1987; Bagnato, Kontos & Neisworth, 1987; File & Kontos, 1993).

Most caregivers and early childhood teachers seem to be aware that the development of social and interaction skills are valuable to the young child with special needs, and they identify this as a major goal of care. However a discrepancy exists between the stated goals and the strategies implemented (Bagnato, Kontos & Neisworth, 1987; Peterson & McConnell, 1993).

In summary, recent literature suggests there is ongoing support for the integration of young children into generic services for care and education. Also, there may be some features of child care that are contextually quite different from other early childhood settings and these may affect the interactions that take place. It seems that caregivers and teachers identify the development of social skills as primary goals for children with special needs but they have some difficulty in implementing strategies that will achieve the goals.

The project reported here is part of a larger study. The study set out to answer some of the questions that arise in relationship to the way in which caregivers may mediate the interactions that take place between children with special needs and their typical peers in a Child Care setting.

Research question

The focus question for this project was simple.

What is the nature of caregiver mediation of the interactions between children with special needs and their typical peers?

Methodology

The grounded theory approach was adopted to investigate this research question. First described by Glaser & Strauss (1967), the approach has proved useful when little is known about the subject or when existing studies do not adequately predict or explain outcomes. It was selected for these reasons.

The data consisted of an archive of 27 video recordings taken of children with special needs in integrated Child Care settings. The archive is held by the Resource Unit for Children with Special Needs in Western Australia. Appropriate consent was gained for the use of the data for research purposes. Further data were obtained by interviews with the staff of the Resource Unit. Sorting of the video-recordings resulted in some being discarded as unsuitable. Eventually recordings of sixteen

children were analysed. Each recording provided at least 30 minutes of quality interaction.

The video-recordings were analysed during the constant comparative method as described by Glaser & Strauss (1967), Glaser (1978), and Strauss & Corbin (1990). Processes were conceptualised and systematically organised into categories. Each new level of abstraction was validated against the original data thus constructing categories that were grounded in the empirical data. Extensive memos were made at each viewing for later reference.

The final step of the analysis for this project was to integrate the various categories into a paradigm of categories and their properties and the possible relationships between them.

Findings and discussion

Caregivers mediate the interactions between children with special needs and their typical peers by using a variety of strategies that can initiate, increase or curtail interactions. Interactions can be classified as positive, negative or neutral in immediate outcome. There appears to be a minor feedback process between the outcome and the continued use of a strategy or the selection of a new strategy. A more powerful feedback loop exists between the outcomes of caregiver mediation of interactions and the context within which the process takes place.

The context for caregiver mediation of the previously mentioned interactions is a complex one. It involves the routines and ritual that characterise child care itself and a balancing act by the caregivers to equalise the needs of an individual child with special needs and 'the children' as a collective, including those with special needs.

The context for mediation

The child care context is rich and diverse. Clearly many factors will influence the texture and climate of a particular centre. However each centre expressed its own unique self by the routines and rituals that took place.

Caregivers implemented strategies that provided structure and flow to the activities taking place in the setting. Three main strategies were observed:

Scheduling. This strategy included actions and interactions such as monitoring of time; preparing space and equipment; giving prompts and cues to children in anticipation of the next event planned; and stating expectations regarding current and future events.

Guiding/directing. This strategy included actions such as giving verbal and non-verbal indications of expected behaviours, scanning of children's activities and statements (and repetition) of formal and informal rules/expectations.

Activities structuring. This strategy included actions that monitored the activities of children; selecting and arranging materials and resources; encouraging involvement; and various other pedagogical aspects of structured activities.

The balancing act

This is essentially a process whereby the caregiver 'favours' (as expressed in time, focused interaction or advocacy) an individual child, over the group of children. This process appears to vary greatly according to the situation and the players present. It may be best expressed as a continuum between the attention to the child as an individual or as a member of the group. The context determines the properties of caregiver mediation of the interactions that take place between children with special needs and their typical peers.

Mediation

Mediation refers to a process whereby a caregiver acts to bring about a result from social interactions between two or more children. Mediation in this study refers to mediation of interactions between a child with special needs and his or her typical peers. Caregivers mediated in the following ways:

Shepherding. This was observed as an effort of the caregiver to 'mind' or 'watch over' a particular child. It includes such strategies as guiding the child to be in the right place at the right time; guarding the child from unwanted interactions or approaches from other children; and, on occasions, restraining a child.

Masterly inactivity. This term describes a situation when a caregiver appears (or on occasions may state in teacher to teacher talk) to be fully aware of a situation and its potential for interaction but takes no overt action to promote or diminish peer interactions. It includes 'ignoring' behaviours; permitting risk taking behaviours; and withdrawing from situations.

Social scaffolding. Caregivers perform actions and interactions that provide a template or framework for a child to use in support of his/her interactions. This is a complex and diverse strategy, and includes such actions as commentating on social situations and providing a verbal representation of actions; monitoring of situations for the appropriate point of intervention; inviting/encouraging children to enter a group; and providing exemplars of appropriate behaviours.

Regulating. Peer interactions are regulated by caregivers using a series of actions and interactions to reinforce or reduce interaction between peers. Some of the regulating actions included affirming or praising a child or children; focusing or re-focusing attention towards a particular child, situation or group of children; and blocking or stopping an interaction and caregiver responding to situations with and without solicitation.

Consequences

The interactions between the child with special needs and his/her typical peers as an outcome of mediation were observed. The consequences of various strategies included the initiating, extending or curtailing an interaction. Interactions were categorised as positive, negative or neutral as an immediate outcome.

On many occasions the outcome of consequences of mediation set the conditions for a caregiver either to use the same strategy in order to maintain or increase the outcome, or to change the strategy in order to change the nature of the outcome. This formed a feedback loop between the outcomes (which now become the causal conditions) and the total context of the situation. The caregiver thus re-balances prior to further mediation.

At times the outcomes from the mediation process set the conditions for the caregiver to use a strategy that results in an outcome that relates to the orderliness, predictability and manageability of the work flow, or the other children as a group. It is not within the scope of this paper to consider this issue, but it will be the focus of further investigation.

Summary

This investigation has identified the strategies used by caregivers to mediate interactions between children with special needs and their typical peers. The routines and rituals of day care, and the balancing of differing needs form a complex and

diverse context for the process. The consequences of actions and interactions of mediation result in conditions that lead to either a positive or negative feedback process, thus mediation can be described as an interpretative process by caregivers that brings about a result in the social interactions between children with special needs and their peers.

References

- Bagnato, S.J., Kontos, S. & Neisworth, J.T. (1987). Integrated Day Care as Special Education: Profiles of Programs and Children. *Topics in Early Childhood Special Education*. 7(1), 28-47.
- Bailey, D.B. & McWilliam, R.A. (1987). Normalising Early Intervention. *Topics in Early Childhood Special Education*. 10(1), 33-47.
- Bricker, D. (1978). A Rationale for the Integration of Handicapped and Non handicapped Pre-School Children. In M. Guralnick (Ed.). *Early Intervention and the Integration of Handicapped and Non handicapped Children*. Baltimore: University Park Press.
- File, N. & Kontos, S. (1993). The Relationship of Program Quality to Children's Play in Integrated Early Intervention Settings. *Topics in Early Childhood Special Education*. 13(1), 1-18.
- Glaser, B.G. (1978). *Advances in the Methodology of Grounded Theory: Theoretical Sensitivity*. Mill Valley, California: Sociology Press.
- Glaser, B.G. & Strauss, A.L. (1967). *The Discovery of Grounded Theory, Strategies for Qualitative Research*. Aldine Publishing Co Chicago.
- Howes, C. (1986). *Social Competency with Peers: Contributions from Child Care*. ED 288 606.
- Guralnick, M.J. & Groom, J.M. (1987). The Peer Relations of Mildly Delayed and Non handicapped Pre-school Children in Mainstream Playgroups. *Child Development*. 58, 1556-1572.
- Klein, N. & Sheehan, R. (1987). Staff Development: A Key Issue in Meeting the Needs of Young Handicapped Children in Day Care Settings. *Topics in Early Childhood Special Education*. 7(1), 13-27.
- Peck, Odem & Bricker (1993). *Integrating Young Children with Disabilities into Community Programs*. Baltimore: Paul H Brookes.

- Peterson, C.A., Waite, B.F. & Rochester, M.J. (1989). Direct Caregiver Intervention in Infant Peer Social Encounters. *American Journal of Orthopsychiatry*. 58, 116-121.
- Salisbury, C.L. (1993). Mainstreaming During the Early Childhood Years. *Exceptional Children*. 58, 146-155.
- Strain, P. (1984). Social Interactions of Handicapped Pre-schoolers in Developmentally Integrated and Segregated Settings: A Study of Generalisation Effects. In T. Field, J. Roopnarine & M. Segal (Eds.). *Friendships in Normal and Handicapped Children*. Norwood, N.J.: Ablex.
- Strain, P. (1990). LRE for Pre-school Children with Handicaps: What We Know, What We Should Be Doing. *Journal of Early Intervention*. 14(4), 291-296.
- Strauss, A. & Corbin, J. (1990). *Basics of Qualitative Research. Grounded Theory Procedures and Techniques*. Newbury Park, Ca: Sage Publications.
- Wolery, M. & Wilbers, J.S. (1994). *Including Children with Special Needs in Early Childhood Programs*. Washington DC: NAEYC.

Life in a Danish Børneshave: An Australian perspective

Teresa Harms

Introduction

It is interesting to note that the word *kindergarten* (children's garden) first coined by Fröbel, is also the literal meaning of *børneshave* in Danish. Although the same word is used in most parts of Australia, the environment it refers to is quite different. One of the most striking things about Danish *børneshaver* is how relaxed and unhurried the day is. Although there is a lot of action, the atmosphere is casual, and lacks the urgency to 'get things done' that is so prevalent in Western Australian pre-school and pre-primary centres.

Børneshave hours

Most Danish children spend six to ten hours (average seven hours) each day in *børneshaver* or other forms of care. Some children come as early as 6:30 am and stay until 5:00 pm. Both long-day and part-time care facilities are available, but full-time centres are more common. Very few parents visit their children or come 'on roster' during the day, although some parents stay for five to ten minutes at the beginning or end of the day to share some time with their child, or to speak with the *pædagog* (educator).

The staff

Adult-child staffing ratios are generous in Denmark, at least in the børneshave. A centre with a group of 22 children would have two and a half to three supervising adults—two trained *pædagoger* and an untrained assistant. This high staffing level can be found during the ‘peak’ eight hours of the day, from 8:00 am to 4:00 pm.

Pædagoger train for three and a half years in *seminarier* (teacher training colleges), which are technical institutions offering both theory and practical training. It is not uncommon to find male pædagoger or assistants in børneshaver (around 10% of the staff), but the majority of staff is female.

Pædagog is a difficult word to translate directly into English. It could be described as educator, but not teacher. *Lærer* is the Danish word for teacher, and has the same meaning as teacher in English. Whereas pædagoger work in børneshaver and børneshaveklasser, lærere are employed in *folkeskoler* (primary schools).

The building and environ

Indoor area. Many børneshaver have more than one group, perhaps two or three groups of 20 children, so some of the buildings are quite large. A typical ‘unit’, to use Western Australian parlance, has a cloak room, office, bathroom, kitchen, main activity area, utility/storeroom (with sink) and perhaps one or two smaller rooms which can be used for various purposes. There is usually at least one outdoor shed of generous proportions. Additional storage space may be available in the basement.

The main activity area is proportionally smaller than some Western Australian centres. There are tables and chairs, shelves (frequently very tall) for puzzles and games, and storage drawers for the children’s work. The smaller rooms may be used for a home corner, as a construction area, or perhaps as an extra activity room. There is less in-built ‘structuring’ of the room furnishings into designated ‘areas’, and therefore always the possibility of modification.

Outdoor area. Børneshave outdoor areas are larger than those in many Western Australian pre-school and pre-primary centres. There is generally a sizeable paved area reserved for bicycle riding, the sandpatch, pot plants and outdoor furniture. Grassed areas provide both sun and shade and house a variety of cubby and play houses. Outdoor equipment tends to be fixed, and offers many opportunities for

sliding, climbing (ladders, ropes, nets, ramps), crawling, jumping, balancing and swinging (tyres, traditional seats, cradles). Obstacle courses or arrangements of jumping boards and other equipment, characteristic of Western Australian pre-school and pre-primary centres, are uncommon in Danish børnehaver.

The daily program

Program planning. Danish pædagoger are not required by law to prepare program plans or to keep developmental profiles or records on the children's progress and achievements. *Bistandsloven* (the Social Security Act) provides only broad guidelines for early childhood care and education programs. The Act states that day care centre staff must, in co-operation with parents and children, "create a framework which promotes the children's development, well-being and self-reliance".

In recent years, pædagoger have been developing *virksomhedsplaner* which could be described as activity or operational plans. Virksomhedsplaner include an outline of broad program philosophy and goals, and information on opening hours, staffing, the daily timetable and sometimes, the centre's budget. There are generally no set guidelines or formats to follow, although there is a trend in this direction. From a Western Australian perspective, virksomhedsplaner are very similar to the information books that are given to parents at the beginning of the pre-primary year.

The timetable. Many børnehaver follow a daily timetable, which is a loosely grouped set of play possibilities and eating times. Some børnehaver do not have timetables or formal eating times, and leave the children to make their own decisions about all of their daily activities, including when to eat or whether to eat at all!

The børneshave I visited daily for three weeks, and which could be considered as a 'typical' centre, had the following timetable (translated directly from the Danish):

TABLE 1. Børneshaver daily timetable.

Time	Activity
6.30am	Børneshave opens. Up to 8:00, children can eat a breakfast of oats or cornflakes.
9.15—9.45am	Circle time, where we eat the fruit that has been brought along. We see, preferably, that everyone comes. It disrupts a lot to come in the middle of the circle!
9.45am	Play, activities and groups.
11.30am	Children participate in setting the tables. Lunch, and afterwards, tooth brushing.
12.30pm	Everyone is in the playground, and possibly sleepy children may lay down.
2.00—2.15pm	Afternoon snack (time break can vary a little).
2.15pm	Play.
5.00pm	Børneshave closes.

As can be seen from the timetable, there are many possibilities for the day, and there is no imperative to pursue particular types of activities or experiences in a set period. There is generally free movement between the indoor and outdoor environments, even between 9:45 and 11:30 am.

Typical indoor activities. Activity opportunities are less structured than in many Western Australian pre-school and pre-primary centres. Children are expected to choose their own pastimes, which may include playing in the home corner, building with lego, doing a puzzle or reading a book.

Circle time in the børneshave is very similar to fruit or group time in Western Australian pre-school and pre-primary centres. Sometimes the pædagog may read a story while the children are eating fruit. On other occasions, the children may sing some traditional or contemporary Danish songs, learn a Danish folk dance, or play some non-tuned percussion instruments. Story and music times appear to occur spontaneously, rather than as a set part of a predetermined timetable or routine.

The 'constant positives' of painting (easel, finger table), drawing, collage, gluing and cutting, playdough and specific (thematic) art and craft activities are not always available. These are all possibilities, but need to be 'activated' by a request from a child, or group of children. Few activities are 'set up' at the tables for the children to do, even voluntarily. Art and craft consumables, rather than being arranged on a trolley, are stored on high shelving that is not readily accessible to the children.

My overall impression, as an outside observer, was that everything was there 'for the asking' (or the taking). However, few children took the opportunity to pursue art and craft experiences, preferring to play in the home corner or with lego and other manipulative equipment. Many of the children elected to play outdoors for a good part of the day, particularly during periods of warm, sunny weather.

The most significant contrast between Danish and Western Australian centres is the apparently 'themeless' børnehave program. In the Danish context, a theme may be viewed as an imposition of adults' interests over the children's.

Outdoor play. Although being outdoors may be the first choice for many children, the weather influences this opportunity, to a degree. When the weather is sunny and warm, the children (and staff) often spend the entire day outdoors! The children may cycle, spend time in the sand patch, climb and play in the various cubby houses, chat, engage in imaginative play or perhaps build an animal enclosure or cubby house with the help of available adults.

It is also interesting to observe that Danish children are allowed to play in the rain (and snow!) and are not quickly shunted indoors in case they 'catch cold', as would be the case in many Australian pre-schools and pre-primaries. This is quite intriguing, because daytime winter temperatures can drop as low as -10° C. It is quite normal for children to play outdoors when it is 0° C. Despite the 'less than perfect' weather conditions in Denmark, children in this country seem to spend a great deal more time outdoors, at least in the pre-school, than their Australian counterparts.

Low profile of adults

Adults really do have a low profile in Danish børnehaver. They are always there, but tend to step back from the children's activities rather than step into them, as is the tradition in Western Australia. Few activities are initiated by the adults, who tend to respond to requests from the children. The children do ask adults for assistance, but more often than not, if another child is nearby, he or she will be asked to help.

A similar mentality prevails regarding the resolution of conflicts. Children are expected to (and do!) resolve their own conflicts with other children. Adults are usually approached as a last resort, and this is very much the expectation of the adults. As the Danish psyche embraces autonomy and does not revere authority, it may follow that adults have only limited rights to interfere in the ups and downs of the daily lives of children.

Thoughts and impressions

It is difficult to capture or describe the essence of Danish børnehaver unless one actually visits one over a period of time. One then naturally falls in to the rhythms of daily life by participation, observation and reflection. Play is highly esteemed and consequently shapes a significant part of the day in Danish børnehaver. Pædagoger speak about children 'learning through play' and stress the importance of developing 'the whole child'.

The values that come to mind when I reflect on young Danish children's experiences in the børnehaver are 'be yourself' and 'be natural'. The children's activity suggests the words *play, eat, interact, explore, create* and *discover*.

The effects of Aboriginal children's participation in Aboriginal preschool on the education outcomes in year one

Jerome Toonen

The study

Aboriginal preschools provide early enrichment education programs for four year old Aboriginal children, and have been conducted in Western Australia for approximately 20 years. The preschool programs aim to address the educational and health needs of young Aboriginal children, and to assist the children in their overall development. In addition, the program aims to help the children to adjust to further education programs in primary schools. No identifiable formal assessment or evaluation of the Aboriginal preschool programs has been conducted since their inception.

The purpose of this study was to investigate the effect of four year old Aboriginal children's participation in Aboriginal preschools on the children's development of social-emotional, language, motor and cognitive skills and knowledge.

Method

The study was an *ex post facto* design, whereby the overall development of a sample of 44 Aboriginal children enrolled in Year One at school was assessed. In addition, comparisons were made between the developmental levels of those children

who had previously been enrolled in an Aboriginal preschool as four year olds, and the developmental levels of those children who had not been enrolled in an Aboriginal preschool or any other preschool program as four year olds.

The *Batelle Developmental Inventory Screening Test* was used to measure the children's level of development in seven developmental domains; personal-social, adaptive, gross motor, fine motor, communication (receptive), communication (expressive) and cognitive. Analysis of Variance and Analysis of Covariance tests were used to compare the mean scores of each group for each developmental domain included in the test.

Results

It was found that subjects who had been enrolled in an Aboriginal preschool as four year olds scored statistically significantly higher in the adaptive and gross motor domains of the test than subjects who had not been enrolled in an Aboriginal preschool as four year olds. Subjects who had been enrolled in an Aboriginal preschool also scored educationally significantly higher in the personal-social and communication (expressive) domains of the test than subjects who had not been enrolled in an Aboriginal preschool. There was no statistically or educationally significant difference in the scores of the two groups in the fine motor, communication (receptive) and cognitive domains of the test.

Conclusions

It was concluded tentatively that Aboriginal children's participation in Aboriginal preschools as four year olds exerts a positive influence on the children's personal-social, adaptive, communication (expressive) and gross motor development.

The findings of the study support the case for the provision of preschool programs for all four year old Aboriginal children, and for the continued operation and expansion of Aboriginal preschool programs.

It is recommended that further studies investigate the effect of young Aboriginal children's participation in early childhood programs on the children's development of skills and understandings. Further studies should include a larger sample and greater distribution of subjects, to increase the validity in their findings.

In addition, it is recommended that studies should include comparisons of the educational development of preschool aged Aboriginal children with other preschool

aged Australian children. Researchers should compare the educational development of young Aboriginal children with Australian norms of child development.

Time to change our image as “Nice ladies who love children” and speak out about teacher accountability

Lennie Barblett

Introduction

Accountability in education is not a new idea but the debate has intensified with the global push for quality assurance. Changes may unsettle the early childhood sector, because they may alter the way that those in accountability relationships assess work and success. Early childhood educators can no longer work in isolation as schools move towards whole school initiatives such as accountability planning in the school development plan.

Accountability has become a prominent issue at the community, school and system level. What have we contributed to the debate? Do early childhood educators speak out on issues that will affect the way in which we work and programme?

Changing images

Early childhood educators have not been good at speaking out, partly because we are mostly women who have been socialised to be peacemakers. However, there may be some truth in Stonehouse's (1989) view that for too long we have been

smug about what we know about young children. We have been critical of people who do not share the same knowledge, and we do not make many attempts to tell them what we know.

For too long we have been seen as "nice ladies who love children". Stonehouse outlines some images of early childhood educators that directly affect our status, which, in turn, affects the way our discussions are greeted. The first image comes from an anonymous survey (taken from Stonehouse, 1989). If you answer 'yes' to the following questions, it is likely that you work with young children:

1. Do you move your dinner partner's glass away from the edge of the table?
2. Do you ask if anyone needs to go to the toilet as you enter the theatre with a group of friends?
3. Do you say "I like the way you did that" to the mechanic who repairs your car?
4. Do you say "Are you sure you did your best?" to the mechanic who fails to repair your car?
5. When answering a question of when a particular event will occur, do you say, "After two more sleeps" rather than "on Thursday"?

The second image is that of the Mary Poppins view of an early childhood person. A person who frolics happily with children and who has a bottomless bag of stories and games.

The third image is that of the old fashioned, motherly, stern but loving teacher totally devoted to her job.

The fourth image is the politically aware early childhood person. She is an effective, forceful fighter and an active political lobbyist.

Stonehouse goes on to give a few more images but the point to emphasis is that it is time that early childhood educators are perceived as speaking out articulately and using their knowledge and experiences in early childhood education. Early childhood educators must speak out about issues in education that should not be ignored. Speaking out articulately on any topic requires thought about the issues and verbalising educational beliefs, which is not an easy task. Kamii (1985) argues that when early childhood educators speak out child development, they are speaking of a philosophy or approach to education not of a descriptive or explanatory theory. This philosophy may be excellent but it represents a leap from psychological theories to educational practices without precise theoretical links between the two. Early child-

hood educators must begin to express and explain the reasons behind our practices to those around us; this is accountability at the most basic level.

Accountability in early childhood education

A number of factors have brought about a focus on the early years in education which reflects the need to define accountability practices in both compulsory and non-compulsory programmes.

Such factors include:

- the importance of high quality programmes;
- increasing numbers of children in care and education programmes;
- rising expectations of education;
- academic pushdown;
- the constant scrutiny of the early childhood sector.

Issues affecting accountability in early childhood education

The debate is compounded by the following factors:

- The education of five year olds is non-compulsory, but most five year old programmes and junior primary years are managed by principals in WA who have only limited knowledge of early childhood education (Stamopolous, 1995).
- There have been changes in early childhood pedagogy and terminology, which reflects our shifting knowledge base. Once we shared a common platform of beliefs, but now practitioners may have different views on how young children should learn.
- The make-up of our early childhood classes differs significantly in structure and context.

The accountability push: Here and abroad

Fleer (1992) reports that in England it is hoped that the National Curriculum will improve accountability and educational standards. The National Curriculum comprises of a number of attainment targets for all age levels, 5 - 18. The impact on Early Childhood Education resulted in a move to a "cognitively-oriented curriculum" (1992, p.19), and many teachers complain that an emphasis on subject areas is against their philosophy of an integrated day.

In America, accountability features quality assurance of programmes, standardised testing of young children, and "readiness" for school programmes. A rise in testing and readiness programmes comes from a push to identify children who may be deemed "at risk" in formal educational settings and a move to improve accountability. Many authors and organisations warn of the dangers of testing young children and the problem of 'fitting' children into schools rather than schools 'fitting' in with children (N.A.E.Y.C., 1990; N.A.E.Y.C. & N.A.E.C.S., 1991; Kamii, 1985; Perrone, 1992). If early childhood practitioners do not want to tread the same path, then we must speak out about what we believe and what we want.

In Australia there is no compulsory framework for the pre-primary year. Many practitioners would welcome the construction of such a framework, but others would not. Recently, Student Outcome Statements have been trialled in WA schools. The Interim Curriculum Council offered the view that the Student Outcome Statements will embody what every child should know (Ministerial Committee to Review Curriculum Development, 1995). It is thought that these statements will assist in accountability at the system, school and classroom level. However, it is essential that a great deal of thought is given to how they are implemented.

Stand up and speak out

Schools are developing corporate plans, and early childhood educators can no longer work in isolation. The school development plan is the vehicle for accountability, and will dictate the strategies to be employed to show accountability of teachers in their classrooms. Many pre-primary teachers are being asked to write school reports for the children in their class under subject headings with ratings such as achieved, or not achieved. The great developmental differences of children at this age are not explained to parents. The time has come when we must not be afraid to speak up at staff and school meetings where plans are made that can affect the way in which we work.

In order to change our public image and show that we have something tangible and useful to contribute not only to this debate but others, there are a number of steps we must take. Firstly we must become practised at describing our beliefs and educational actions to others. This can be done by really pondering over why you do the things you do in your classroom; and how you believe young children learn and develop? If we become practised in speaking knowledgeably about the early years in education and give thought to what educational beliefs we hold then speaking out will become easier. Secondly, speak out at staff meetings about how school policy

will affect your teaching practices. Be prepared to say what you want or do not want and be prepared to back up your statements. Thirdly, attend your local network meetings and set the agenda yourselves. Finally, join local professional organisations who encourage debate on such issues, and lobby at the system level of education.

We must start asking questions, be on the ground floor of school policy decisions, and act as advocates of early childhood education. If we do not, then we must accept that early childhood education may lose the essence that makes it special.

References

- Fleer, M. (1992). A letter from England: Does Australia have a Clayton's national curriculum. *Australian Journal of Early Childhood*, 17(1), 17-21.
- Kamii, C. (1985). Leading primary education towards excellence. *Young children* September, 3-9.
- Ministerial Committee to Review Curriculum Development. (1995). *Review of school curriculum development procedures and processes in Western Australia*. September, Education and Coordinator Bureau, Perth.
- N.A.E.Y.C. (1988). Position statement on standardised testing on young children 3 through 8 years of age. *Young children*, 43(3), 51-56.
- N.A.E.Y.C. & N.A.E.C. (1991). Guidelines for appropriate assessment in programs serving children through ages 3 through 8. *Young children*, March, 21-38.
- National Childcare Accreditation Council (1993). *Quality improvement and accreditation system handbook*. Sydney.
- Perrone, V. (1992). Standardised testing in the early grades. *The Education Digest* January, 43-46.
- Stamopolous, E. (1995). *The professional background and perceptions of principals on their leadership role in pre-primary*. Unpublished Masters Dissertation, Edith Cowan University, WA.
- Stonehouse, A. (1989). Nice ladies who love children: the status of the early childhood professional in society. *Early Child Development and Care*, 52, 61-79.

The story of professional growth

Glenda Campbell-Evans

Learning through stories

Much is written about professional growth; about what it is, about how it can be stunted, about how it can be supported. There is discussion at system, school and individual levels around issues of the content, delivery, resources and responsibility of professional development. Traditional professional development formats characterised by top-down, 'one-size-fits-all' assumptions have often not met the needs of teachers. For many teachers, transmission style workshops or seminars presented in isolation from the teaching context contribute little to significant professional growth. In recent years, some teachers have participated in alternative modes of professional development such as collaborative groups aimed at providing support and guidance for teachers engaged in change. Others prefer to 'go it alone' trying to improve upon their practice in order to better facilitate student learning.

What strategies contribute to, and support professional development? What conditions are favourable for the professional growth of teachers? Are there benefits in working with others? How can one move ever closer to 'best' practice? Are there new ways forward? No one strategy will suit all teachers in all cases but I believe that there is much potential for the professional growth of teachers through the telling and listening to teachers' stories.

Stories are an important part of learning and of school life. Stories and story telling have a special place in pre primary centres, in libraries and in many homes. Through our work as teachers and as administrators, all of us have witnessed the delight of children as a story captures their imagination and excites and entices them into adventures in far away lands, or resonates with experiences that are close to home. Children learn through stories and story telling. Their hearts, minds and imaginations are touched. They think, they feel, they dream.

Stories are a familiar and formidable means of conveying messages, and of making connections. Throughout the ages, stories have satisfied peoples' quest to explain their physical world. Stories have filled the human need to communicate experience to others. They have encoded and preserved the norms of social interaction that a given society lived by, and they have been a means of educating and socialising. We have heroic epics, stories of the minstrels, myths and legends. We have folktales of the Grimm brothers, fables, tall tales and fairy tales.

But learning through stories is not the exclusive privilege of children. Stories can also touch the hearts, minds and imagination of adults.

Mick Connelly and Jean Clandinin (1990) are Canadian educators who suggest that humans are "storytelling organisms who, individually and socially, lead storied lives" (p.2). The phenomenon is the story and narrative names the patterns of inquiry for its study. For Connelly and Clandinin, narrative is "the study of how humans make meaning of experience by endlessly telling and retelling stories about themselves that both refigure the past and create purpose in the future (p.2).

Story telling is a sharing experience. When we tell, we show our willingness to be vulnerable, to expose our deepest feelings, our values. The telling of a story creates a common experience for the teller and for the listener—the story provides a context for experience from which the teller and the listener begin to create their own meaning which is influenced by the knowledge, experience and understanding of each. When a teacher tells another of his/her experience of teaching, it creates a common ground within which to explore the meaning of the story and its application to the teller and listener. The telling shares the experience, while the listening values it.

Sharing stories of teaching and of classrooms is a way out of the egg carton. We know the isolation teachers experience when working in a traditional 'egg carton' school. The image is one suggested by Dan Lortie (1975) in his now classic book *Schoolteacher* where he likens classrooms in a school building to the individual

pockets of an egg carton. Each egg or classroom is individual, protected from other pockets, and joined together only for convenience, for economy.

The sharing of teacher stories and of stories about teaching moves us out of the egg carton, and helps us begin to create a community where there is "...emphasis on communal understanding—on bringing people together to form webs of meaning around shared ideas that speak with a moral voice" (Sergiovanni, 1996, p. 188).

In *Leadership for the Schoolhouse*, Thomas Sergiovanni proposes how communities differ from organisations. He suggests that communities "are organised around relationships and ideas. They create social structures that bond people together in a oneness, and that bind them to a set of shared values and ideas (p. 47).

The community emphasis on relationships and ideas is supported by a leadership image of the educator as a teller and listener of stories for purposes of learning, professional growth and culture building. The move away from schools as organisations to schools as community is a significant one—it refocuses our attention on elements of care, trust, and shared purpose.

Sergiovanni (1996, p. 142) urges educators to work to create communities that:

- encourage teachers to reflect on their own practice
- give high priority to conversation and dialogue among teachers
- provide for collaborative learning among teachers
- emphasise caring relationships and felt interdependencies
- view teachers as supervisors of learning communities.

If we agree that the relationships among adults in schools are crucial to the maintenance of a positive learning environment, then the collective action must be toward shaping an environment in which individuals feel confident to move out of their pocket in the egg carton. To 'move out' by sharing the story of their classroom. In order for teachers to do this, school must be a place where teacher knowledge and experience is valued.

In the communities Sergiovanni proposes, what teachers know through experience and intuition, 'counts'. Their stories of teaching are important. Clandinin and Connelly (1995) suggest that there are three types of teacher stories. Firstly, they identify the sacred story which shapes teachers' professional knowledge. The sacred story is one of theory, of research, and of knowledge created and validated outside the teacher's experience. For Clandinin and Connelly, "the universality and taken—

for grantedness of the supremacy of theory over practice gives it the quality of a sacred story" (p. 8). Sacred stories are 'told' or transported to teachers through the conduit or channels of the school, system and the educational community at large. They are stories of 'ought'.

Then there are the stories of practice, of 'is'. It is in classrooms that teachers live their stories of practice. Connelly and Clandinin (1995) suggest that these lived stories are essentially secret ones as teachers typically teach alone—isolated for major portions of the day from other adults and from their professional colleagues. In the telling of these stories in safe places, to trusted colleagues, teachers come out of the egg carton isolation into a community—a community that provides a place to tell, reflect and understand stories of ones' teaching. Teachers' knowledge is constructed and reconstructed in practice and through reflection upon practice. It differs from the theoretical knowledge of the sacred story but is informed and enriched by it.

Sacred stories, secret stories, and finally, cover stories. When teachers are outside the classroom, they tell the stories of the system—that is, they speak of outcomes, assessment, programmes, and perhaps of policy. They respond to the accountability they have to principals, coordinators, and parents, by talking about goals, strategies, curriculum, and results. They rely upon 'codified outcomes', upon 'established' truths. These cover stories help teachers portray themselves as experts outside their classrooms.

What kind of stories are told in your school? What kind of stories do you tell? To whom? Are teachers sharing their secret stories with colleagues? Are there safe places in your school for telling secret stories? To whom do you tell secret stories? Are they colleagues in your school? Are they educators? Why do you tell them your secret stories?

From a sharing of secret stories, teachers create common experiences within which they can jointly explore their practice. Through the telling, clarification, retelling, reflection and interpretation, teachers can come to better know and understand their own practice and the practices of others as a way of increasing their teaching knowledge, repertoire and understanding. This professional growth is grounded in the experience and knowledge of teachers and has application to their world of school. Go ahead, tell a story—a story of professional growth.

References

- Clandinin, D.J., & Connelly, F.M. (1995). *Teachers' professional knowledge landscapes*. New York: Teachers' College Press.
- Clandinin, D.J., & Connelly, F.M. (1990). Stories of experience and narrative inquiry. *Educational Researcher*, 19, 2–14.
- Lortie, D. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.
- Sergiovanni, T.J. (1996). *Leadership for the schoolhouse: How is it different? Why is it important?* San Francisco: Jossey-Bass Publishers.