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The development of personal, analogous and universal thinking through in-role drama : a case study

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The Development of Personal, Analogous and Universal Thinking through

In-Role Drama: A Case Study

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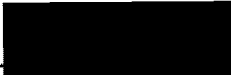
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USE OF THESIS

DECLARATION

I certify that this thesis does not incorporate, without acknowledgment, any material previously submitted for a degree or diploma in any institution of higher education and that, to the best of my knowledge and belief, it does not contain any material previously published or written by any other person except where due reference is made in the text, or contain any defamatory material.

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Date....April....2003...............................

ACKNOWLEDGMENTS

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ABSTRACT

The main purpose of this study was to investigate the development of the problem-solving skills of eleven year olds in a Western Australian Primary school when the teacher and the children were in-role within the drama. The teacher, as teacher in-role, and the students role-played a variety of situations in which effective problem-solving skills were used.

As the study progressed the nature of the children's use of symbol and metaphor became an important issue. In the first session the teacher in-role as the Mayor of a small town informed the children in-role as the town council that an alien spacecraft had land: · in their imaginary town. The children brainstormed ideas about the characters, the town and the situation confronting them. In the second session the teacher in-role as the Mayor read out a letter from the aliens and then introduced a painting to the children, played music and encouraged the children to draw symbols to represent their town to the aliens. The children created a fluid sculpture using these symbols and then reflected and discussed the lesson. Session three focussed on group skills and involved games, discussions and journal reflections about the town's dilemma. The fluid sculpture was developed in session four. The children made final preparations for the alien landing in session five and organised a meeting place, before meeting the teacher in-role as the alien.

The in-role teacher observed the participants in drama sessions over a period of five weeks. Data was gathered from the five 45 minute sessions and collected in the form of: audio-taped interviews; work samples - letters, symbols, drawings and a suggestion box; journals; memos - observational notes and ideas and literature related to the data collated from the drama sessions as shown in Table 4.1. This data was recorded onto checklists and coded for analysis. The data was put into categories to see if there was any development in the children's problem-solving skills. A case study approach was used with an emphasis on 'symbolic interactionism'.

The results showed that in-role drama appeared to enhance the development of the problem-solving skills of eleven year old children. The data analysis showed an improvement in conflict resolution, decision-making and making value judgements. The symbolism encouraged the creation of a universal language and helped to develop the children's emotional awareness. Future researchers could look at the effect of in-role drama techniques on emotional awareness, socialisation, critical thinking and empathy.

Chapter One

INTRODUCTION

1.1 Introduction to study

Arts Education: visual arts, drama, media, dance and music in the Primary School curriculum helps to develop creativity and problem-solving in children (Curriculum Council of Western Australia, 1998). The drama teacher develops a framework from which children use a variety of problem-solving strategies to analyse, reflect-upon and resolve conflicts within an imaginative or realistic context. The children can use these strategies in a variety of ways to become aware of attitudes and values, improve social situations or to generate new solutions to problems. Drama develops and enhances creativity by encouraging children to undertake role-play in different situations (O'Toole, 1991).

In this study the researcher used the in-role technique to determine whether the children's problem-solving changed over a five week period. The researcher observed the children participating in a variety of drama activities, and assessed by monitoring and evaluating the development of the children's problem-solving skills, emotional awareness and social skills (Kirschenbaum & Henderson, 1989; Courtney, 1990).

Emotional awareness develops a link between the cognitive and affective abilities (Rogoff, 1990; Goleman, 1995). This in turn may affect how an individual responds to a variety of stimuli. For, "Emotional intelligence is a different way of being smart. It includes knowing what your feelings are and

using your feelings to make good decisions in life" (O'Neil, 1996, p. 6). Emotional awareness ensures the students' abilities to reflect upon and work with how they think and feel thus linking the cognitive and affective states (Courtney, 1990; Arnold, 1994). This study hoped to demonstrate this link.

The children in this study reflected on their drama lesson experiences in interviews, journals and drawings. The researcher asked the children to express how they felt about the drama process using these data gathering processes. This data was analysed for evidence of problem-solving using observation and interview techniques. The children self-evaluated and critiqued their own drama techniques. The children discussed and evaluated the symbols and metaphors that emerged as the study progressed. Additionally they were encouraged to make comment on their perceptions of the teacher, their performance in-role and their peer's in-role. Naidoo (1992) stresses the importance of self-reflection to engage children in critically thinking about the purpose of drama. This self-reflection evaluates the use of role and drama. Using self-reflection the children consider their attitudes, beliefs and values, how they set realistic goals, define their character, and interact in the drama group (Naidoo, 1992).

By developing skills such as sharing, listening to others, valuing others' ideas and making compromises, drama teachers assist children in fulfilling their potential (Bruner, 1983). This research model demonstrates how problem-solving skills enhance cognitive development (Bruner, 1983). This is because the drama teacher can structure learning experiences in the drama classroom that become for the children building blocks or 'scaffolds' towards improving their understanding and problem-solving skills.

In drama the children are given skills to transform their imaginary world by enhancing their problem-solving skills (McLeod, 1989; O'Toole, 1994; Greene, 1995). Active involvement in decisions that concern the drama process may

enhance the children's problem-solving skills. Motivating the children as a group rather than as individuals makes the most of the drama process and encourages them to become active decision-makers in the process (Sowden, 1988, p. 46; Vines & Yates, 2000).

Myers and Berman Cantino (1993) state that:

> ... making children experts by providing them with opportunities to use what they know, eliciting their questions, and challenging children's ideas in role also raise the cognitive level and enhance problem solving and critical thinking (p. 11).

The teacher was a guide in this study allowing the children to self direct the possible outcomes of the drama situations. A quality of openness was considered as the teacher and class negotiated the drama space. This openness reflected the paradox of chaos versus control faced by all drama teachers (Wagner, 1998). As an in-role teacher the researcher used open-ended questioning, student/teacher discussions, brainstorming, and in-role drama techniques, which were deemed essential for problem-solving to take place. This was in order for children to acquire new concepts, formulate ideas, reflect on existing ideas and develop higher order thinking skills (Arnold, 1994; Courtney, 1990; Greene, 1995; Wagner, 1998).

Structure of the Thesis

The thesis consists of six chapters with Chapter Two being a review of relevant literature. Chapter Three deals with the methodology. In Chapter Four the theoretical framework is described, as is the importance of drama as a shared learning experience. Chapter Five provides the analysis of the data drawing on the children's interviews, journals, drawings and attends to emergent ideas on the use of symbolism and metaphor The closing chapter discusses the results of the study and the effectiveness of the in-role drama technique and the limitations of the study. This chapter also describes the effect of in-role drama

on the development of problem-solving skills and focuses on the implications of this model for the primary school curriculum.

1.2 Research Questions

Two questions were formulated for the basis of this research and as the work progressed a third question arose on the use of metaphor and symbol.

1. Do children develop their problem-solving skills when the teacher is in-role?

2. When children are in-role within the drama process are their problem-solving skills developed?

3. What are the children's use of symbols and metaphor as the case study progressed?

1.3 Definition of Terms

In-role Drama - Role is the process of actively imagining yourself as being someone else. In-role drama allows the teacher and students to act out a variety of situations within the drama. The teacher as the guide in the drama, moves in and out of the drama experience. The teacher needs to allow for the children to become responsible for the drama so it is necessary to step out and only returns when the children need guidance. Neelands (1984) asserts that by using in-role drama the teacher demonstrates the, "... appropriate language and level of seriousness" and become for the children a 'model of role play' (p. 46). The teacher in-role gives both confidence and direction to the group by showing the 'naturalness' of being in-role and by communicating to the children as the character. A naturalistic style is not always the case but if maintained can lead to a believability and further character development (Neelands, 1984, p. 46).

Metacognition - Metacognition involves thinking about thinking (Oxman, 1993, p.11). It is generally defined as the processes of active monitoring or conscious regulation of mental processes or thinking. Woolfolk (1987) states that metacognition involves an awareness of the skills needed to solve a problem and the ability to use them successfully (p. 258).

Metaphor - The drama itself is the metaphor for expression of meaning and emotion (cognition and affect). The metaphor is the idea or starting point for the drama that allows the participants to discover their imaginary world (Greene, 1995). In the case of this study it is the town meeting that initiated the scenario of a town in which aliens have just landed. The metaphor creates a broader understanding of the theme by placing it in the drama context. For example, a trial scene used to define the theme of justice (Neelands, 1992, p. 26).

Metonymy - Metonymy, or contiguous imagery, exists as part or whole of the dramatic subject. It is the cause and effect of symbolic imagery (Courtney, 1990; Fontana, 1993). Courtney (1990) states that metaphor and metonymy construct meaning in drama, "... metaphor through similarity and metonymy through part/whole", and provide a framework for the cognitive processes (p. 75).

Problem-solving - Problem-solving involves the ability to use thinking processes to assemble facts, make inferences, find alternative solutions and to evaluate findings (Costa, 1985, p. 45). It is developmental as it requires practice to improve problem-solving, emotional awareness and social skills. Rogoff (1990) states that cognitive performance should be viewed in terms of the goal to be attained and the interpersonal and sociocultural context.

Social Cognition - This relates to change in the way the children relate to each other as a result of participating in the drama activity. The children may become socially aware as they try to solve a variety of social dilemmas (Rogoff, 1990, p. 61; Haseman & O'Toole, 1991).

Symbols - Symbols are icons, or images created within the drama experience (Bolton, 1984). The symbols embody the meaning of the drama, e.g. a key that represents a treasured possession (Neelands, 1992, p. 26). Symbols are signs in the form of writing, spoken words, images or gesture that represent reality.

1.4 Background to the Study

Drama enables children to solve problems in a variety of fictional situations. It allows them to express their thoughts, needs and ideas through the symbolic arts experience. As stated by Myers and Berman Cantino (1993), "When the drama leaders and students in-role, asked many higher-cognitive level questions, there was a higher incidence of higher cognitive level statements from the children" (p. 13). These methods involved questioning during the in-role experience to show the children's work has value which leads to self-worth and peer acceptance.

Drama has the potential to allow for the development of emotional awareness and problemsolving skills in a non-threatening atmosphere. Goleman states that society has not been concerned with teaching the basic components of emotional awareness, such as empathy for others or the skills of effective anger management or conflict resolution (cited in O'Neil, 1996, p. 10).

An environment that encourages the use of drama-based activities builds respect and a child's personal identity. Children learn from each other, as well as passing on their own life experiences, values and attitudes. The drama curriculum centres on the individual, his/her language development, affective development, social cohesion and cognitive development (Curriculum Council, 1998). That means we use, "Drama as a tool for personal development" (Deverall, 1988).

The Curriculum Council (1998) believes the Arts provide ways to develop children's personal and group skills. Children also learn to examine different social and cultural structures and learn how to represent them in their arts works. Children develop their problem-solving skills individually and in groups to complete and communicate their arts ideas (pp. 7 - 10).

Imagination is a strong source of creativity that enables children to take an active role in the arts experience (Greene, 1995; Greene, 1999). All cultures over time have expressed themselves using art forms, such as painting, drama and story-telling to show appreciation for their aesthetic culture. They created art to revere and to distinguish their cultural heritage and it is a symbol of their past, present and future existence. Taylor (1994) states that, "Our theatre history tells us that the human need to make sense of experience through the imagined or representational has been fundamental to cultural expression" (pp. 6 - 7).

Role-playing situations in society within the drama are useful tools for building social skills. When children see the challenges faced by different groups, they learn to value rather than de-value society. Heathcote (cited Taylor, 1994) believes that, "... Drama is human beings confronted by situations which change them because of what they must face in dealing with those challenges" (p. 10).

In drama by acting in-role as a character an imaginative realm is created. Heathcote (1967) describes this as, "... stepping into someone else's shoes". For, in-role drama creates empathy by putting the individual into the place of their character, confronting them with their character's thoughts and feelings (Rowe & MacIssac, 1991, p. 15). This requires a commitment within the drama process by the participants or actors - the actors being the teacher and the students involved in the drama experience (Heathcote, 1971; Heathcote, 1979; Hornbrook, 1989, p. 18; Heathcote cited Taylor, 1994).

Social Reconstructionist theory, as outlined in Errington's (1992) "Towards a socially critical drama education", enables the analysis of the effect of drama on children's social skills. It outlines the relevance of teaching social issues in today's context. Social action may allow for social awareness and self-reflection in the drama process. This gives the children options to use in their drama and to enhance experimentation. Figure 1.1 demonstrates the social reconstructionist theory and its relation to analysing a dramatic performance in-role (Print, 1993).

DRAMATIC PERFORMANCE
dealing with societal issues (in-role)
↓
focus on 3 areas:
1. Social awareness
2. Active group participation
3. Students Making value judgements on
   societal change

↓

EVALUATE

1. Students involved in evaluation
2. Monitor and observe
3. Record the relevant data
(e.g. memos, interviews, symbols, etc)
↓
collate evaluative package
↓
FUTURE PLANNING
(Action Research)

Figure 1.1:   A Social Reconstructionist's view of evaluating a dramatic
               performance while in-role.

(Refined from ideas on SocialReconstructionism in Errington, 1992 and in Print,
1993).

Acknowledging all these facets of drama as presented in Fig 1.1 when researching a dramatic performance is essential to achieving learning strategies that are effective. Drama research is a necessary step towards defining the importance of drama to principals, teachers, parents, community and government bodies. It enables the teacher to justify the importance of drama in education. The Educational Survey of Great Britain (1968) confirms that, "... it is the variety of theories and experiments that makes so much drama so rich and rewarding an experience" (p. 73).

Experimentation and a variety of techniques may enhance the drama learning environment (Walker, 1970; Hodgson & Richards, 1974; Neelands, 1984; Flynn, 1989). The students develop generic, transferable life-long skills and a greater understanding of the significant role drama plays in their education (Walker, 1970; Flynn, 1989).

Chapter Two

REVIEW OF LITERATURE

2.1 Introduction

In-role drama provides children with various opportunities to find solutions to situations or dilemmas presented to them as the drama evolves, thereby stimulating their problem-solving skills. This chapter will discuss the importance of in-role drama as a technique to foster and develop problem-solving skills and emotional awareness. In this study the metaphor or theme the children will explore involves an alien spaceship landing in their town, a town meeting acts as the starting point for the drama.

2.2 Theories of In-role Drama

Drama supports the 'imagined experience' within a secure space. A teacher has a vital role in encouraging the children's abilities to experiment with new ideas and needs to provide strategies that encourage all forms of dramatic inquiry. Way (1967) believes that, "Drama is as intangible as personality itself, and is concerned with developing people" (p. 7). The teacher's in-role techniques generate problem-solving and intuitive responses within the dramatic context (Neelands, 1984; Courtney, 1995; Greene, 1995; Heathcote & Bolton, 1995).

In-role drama, using fantasy, helps us to identify the time, place and characters in the story. Working together in groups to solve a mystery is a vivid way to

act-out myths, fairytales or science-fiction (Bolton, 1985, p. 154; Courtney, 1990; Jennings, 1990; Neelands, 1992, p. 26). Moore (1988) states that in-role drama involves improvisation as the children pretend to be their character (p. 108).

In-role drama provides opportunities for children to socialise by creating social situations (O'Toole, 1994). Social interaction has a definitive link to problem-solving in that it enhances this skill (Myers & Berman Cantino, 1993). Errington (1992) states that drama is an ideal tool to learn about the self and society because it, "... embraces both individual expression and socially interactive learning".

The practitioners of 'Individual-Radical' drama believe in challenging the individual through roleplay of meaningful experiences (Errington, 1992). Bolton (1986) calls this personal development that builds a sensitivity to the drama (Kempe, 1990, p. 19; Jardine, 1995). Arnold (1994) states that creating empathy encourages the psychomotor, affective and cognitive qualities of each child (p. 21). Arnold (1994) believes that in-role drama teachers act as, "... guides, facilitators, actors, coaches, supporters, and above all teachers in the drama process" and when children become focused on the drama, "... they can find an empathy with their character".

However, teachers have been criticised for over controlling the drama situation (Wagner, 1979; Goode, 1983; Errington, 1992). The teacher needs to guide the children through the process without taking away their ownership. A teacher should know when to intervene in the drama and when to leave it alone (Spolin, 1985, p. 7).

The teacher guides individuals through rehearsals to engage them in a collaborative, team process. The main focus is on resolving the conflicts of 'play' within the drama lesson. Play, in this sense, invites experimentation, exploration and the improvisation of ideas. It differs from social play in that

dramatic play is controlled and purposeful. We need to understand the conflict within the play's structure and what drives the characters to act the way they do. Problem-solving may be essential to the drama experience in that it facilitates the attainment of goals. Bagshaw & Halliday (2000) describe problem-solving or 'negotiating' as a 'cooperative strategy'. By cooperating, those involved in the conflict could obtain their goals without damaging their relationships with each other (p. 89). Indeed, they believe that drama creates active discourse and develops creativity, intellectual and emotional awareness.

Slade (1958) defines play in two forms, Personal and Projected. In discussing Slade's philosophical views on drama, Deverall (1988) asserts that, "... in projected play the drama is in the mind" and, "the objects played with rather than the person playing takes on life and do the acting" whereas in personal play, "... the "whole person or self is used" (p. 11).

Children in-role reflect on their characters and their part in the fictional situation. Credibility is an issue here because the children must be able to identify with the characters and the situation they are in. Heathcote (cited Taylor, 1994) explains that drama can confront because the children initially explore through spontaneous activity many facets of their role. Drawing, improvisations, journal writing and free movement to music are all essential learning mediums in drama (Taylor, 1994, p. 10). These activities can enable the children to tap into their character and transform it into a real, substantial being (McLeod, 1989). The teacher has a responsibility to facilitate this process, catering for the demands of the group and the individuals within that group. In discussing the responsibilities of the teacher as the students engaged in the drama, Neelands (1984) states that:

The teacher in-role not only has the responsibility of bringing the whole group into the drama, but also the further responsibility of working individuals into the drama. This means looking out for the individuals who are having difficulty believing in it; keeping a balance between the genders, so neither is overpowered by the other; encouraging (without forcing) the quiet and shy to contribute ... (p. 51).

Improvisations are stimulating ways of preparing for a role. They enhance the children's creativity and spur the imagination (Johnstone, 1981). The children can experiment with elements of the character in role, such as status, although they may be sometimes unaware that they position themselves in this way. To become aware of the position their character holds in society, for example, may allow them to develop an awareness of social status and then appreciate the differences in status. Haseman & O'Toole (1991) state that the 'human element of drama' helps the students to become socially active. In the drama process the students are encouraged in their learning potential in the group. (O'Toole, 1994). Character development, as one of the key elements of human interaction in drama, involves first listing the status and intent of the character. This may lead to discovering the reason for the conflict and to develop this in character development (McLeod, 1989).

Widdows (1996) and Errington (1996) believe drama promotes change in a socially active way. Children take a socially active role while being aware of their attitudes, values and beliefs in the drama experience. The children become increasingly aware of the importance their character has in resolving the fictional situation. The children gain deeper insights into the conflicts if they see both sides of the situation.

Bolton (1979) describes three factors that develop group skills. The following factors are:

- Personal:
  To do with self understanding and giving new insights into the immediate social environments;

- Universality:
    Using the particular circumstances of the drama to develop a generalization or abstraction;

- Analogous:
    Seeing the connection between the situation in the drama and other situations which seem to be similar ...

He develops the idea that drama is a sharing of ideas and feelings within a group situation. These ideas extend the children's understanding of drama because it enhances the dynamics of the group. The dynamics of the group influence how the children will experiment with and evaluate the drama as they develop an interest in the different types of drama. Bolton (1984) states that, "Drama is not self-expression; it is a form of group symbolism seeking universal, not individual truths".

Boal (1985) describes the space in which the group dynamics evolve as an 'aesthetic space'. The children are transformed through experience as they imagine their new world (McLeod, 1989; Greene, 1995; Greene, 1999). Boal calls it a 'dynamization of people' that empowers the participants to action. Gallagher (1997) points out that, "The group dynamic is one of shared discovery where contradictions and complexities are a significant part of the texture" (p. 28).

The task of the in-role drama teacher is to create an atmosphere that develops these group dynamics. The guidelines of the drama may introduce the children to a new way of thinking and a freedom to find common goals in the drama. This identifies a shared language within the social setting that shows how and why the children interact, and how they feel about working together. In discussing the social skills generated by drama Way (1967) asserts that drama teachers need to know why they teach drama; has an extensive knowledge of how to teach drama; and give the children the freedom to approach the drama at their most confident level (p. 8).

Furthermore, the teacher and the children need to establish a sense of commitment to the drama process. Haseman and O'Toole (1991) state that the group commitment should be strong to facilitate an enjoyable and rewarding drama experience. Success is based on the serious commitment of the group to the drama (p. 2). This creates and maintains a focus in drama because of the active involvement of each member in the process. Participating fully in a drama situation encourages self-esteem because what each child does and says matters to the group. The teacher may need to acknowledge the interests of each individual in the process as well as identifying their level of dramatic skill.

2.2.1 Evaluating the Drama Process

Monitoring specific attitudes, values and skills might help researchers to identify focus areas for drama such as cultural, political and social dilemmas in our society (Boulton-Lewis & Catherwood, 1994). These focus areas could provide a meaningful, imaginative resource for teachers (Juliebo, 1991). This may enrich the creative thinking and language development of the student. Tambling (1990) states that, "Evaluation is an on-going process involving an examination of what is going on and an intelligent questioning of why" (p. 120).

Evaluating drama allows informed teachers to make judgments to effect the future content of drama programs, but teachers must be mindful of the result of evaluating drama on the performance. Haseman and O'Toole (1991) believe assessment techniques require careful planning to ensure a non-judgemental approach to evaluating the arts (vi). To evaluate drama the teacher should initially interview the children to identify their level of development in drama and problem-solving. The information from the interviews may suggest necessary changes to the children's drama skills, the drama content or the teacher's attitude to drama itself Secondly, children tacitly and intuitively reflect in character to relate significant facts about their characters' identities,

backgrounds and events that surround them. It is an effective way of 'tuning in' to their characters and making them believable to others. Neelands (1984) points out that by taking on characters the children use metacognitive strategies to step into another person's shoes and imagine what they would be like. The children solve problems and discover new experiences to help refine their acting skills. Children need to feel respected and valued throughout the drama process. As children learn and alter their drama skills their contribution to drama should be acknowledged (Taylor, 2000). In discussing how the students solve problems in-role Spolin (1985) asserts that:

> The effort to stay on focus and the uncertainty about outcome diminish obstructing attitudes, create mutual support, and generate organic involvement in the playing as it unfolds, as all, director (sidecoach) and actors (players), are tripped into the present moment, alerted to solve the problem (p. 7).

Neelands (1984) outlines the importance of the 'Learning Contract' to encourage children and teachers to be insightful when reflecting in and out of the drama process. It is a dynamic representation of in-role and out-of-role discussion that might lead to a communicative, purposeful and democratic environment. The drama contract is useful for evaluating the in-role drama process by setting guidelines for both teacher and student. The contract is designed to give the student and teacher a structure from which the drama develops. The structure does not hinder the drama as it is under continual negotiation by both student and teacher. This is essential to the in-role teacher because they are moving in and out of the drama.

The following diagram summarises the relationship between the teacher and student in-role and the contract that exists during the in-role drama sessions. When the contract exists the teacher is able to evaluate the session without interfering with the situation being acted out. To clarify the goals of the

experience to students and teacher allows for a trust and willingness to try out new ideas.

TEACHER'S EXISTING
ATTITUDES

CHILD'S EXISTING
ENERGIES

DRAMA CONTRACT

Reflecting needs and interests of both and clarification of goals

Contract guarantees possibility of sensitive working

PLANNING LESSON → DRAMA LESSON → EVALUATION

Establishing our play   In role   Post-lesson reflection
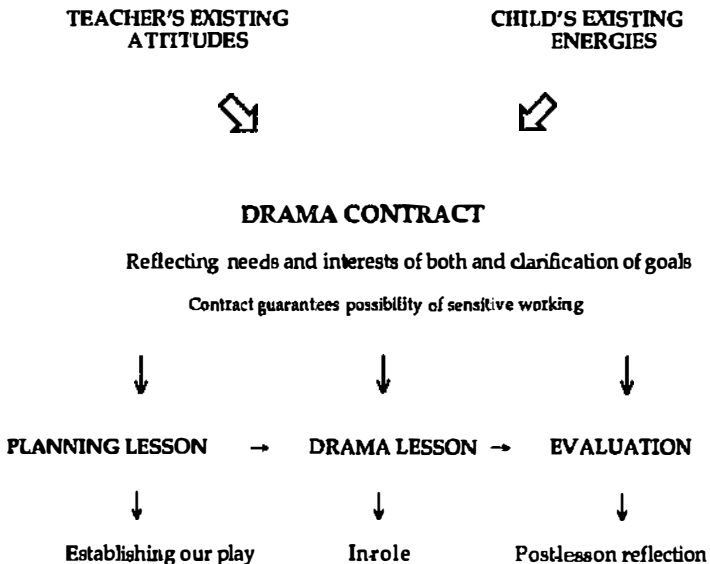
Figure 2.1:   The place of the Drama Contract in the organisation of learning.

(Neelands, 1984).

This type of structure is intrinsic to the drama process and may enable the teacher to monitor a number of skills and attitudes simultaneously. The teacher can then focus specifically on areas that need improvement or the strengths of individual children. Children are involved in the process and all ideas are discussed and considered. This contract may be perfect for group work as it involves a collaborative process.

Self-evaluation ie an important part of the learning agreement. Evaluation of experience can teach the participant how to function in a social setting because they are monitoring the decisions they make and ideas in their drama. This is part of social action and explores the dynamics of experimentation and validates the drama as a creative pedagogy. In assessing students during drama Neelands (1984) states that evaluation in drama allows the children to reflect on their drama skills including discussion and the development of the drama (p. 53).

The contract is a learning agreement to promote goal satisfaction within the working environment. The structure of the drama is a group process, and cannot be maintained without the co-operation of every member. In this study the learning contract is an informal contract, a verbal agreement between teacher/researcher and students to fully commit to the drama process, thus ensuring the effective management of the drama environment. The drama contract was used to evaluate the in-role drama process by setting guidelines for both teacher and student.

Johnson & O'Neill (1984) suggest that a teacher in-role presents to the students an open invitation to be active in the drama. The in-role teacher encourages the students to agree or disagree with what is going on and share in the experience (p. 535).

2.2.2 The Importance of Metaphor Within the Drama Process

Metaphor involves that part of the intuitive process of thinking that enables the children to use their imagination effectively (Bruner, 1960; Greene, 1995; Greene, 1999). Metaphor takes us on a cognitive journey of symbolism and imagery to create tension. Metaphor has many forms that enable us to create an atmosphere or a starting point for the drama. Two examples of metaphor are (1) An alien spaceship landing in your town or (2) A train crashes. In this

study the metaphor is the imagined scenario. The teacher creates a virtual environment that stimulates the children's active involvement in the process. This is similar to what Bruner calls 'guided discovery' where the teacher provides an 'interesting problem' and the children have to solve it. One such example would be to ask: "What would you do when an alien spaceship lands in your town?" (Woolfolk, 1987, p. 275). The teacher acts as a guide in the situation while the children brainstorm and role-play their ideas to find a solution to this dilemma. O'Neill (1995) states that, "Metaphor suggests diverse modes and approaches to inquiry. It calls imagination into play, the cognitive capacity that allows us to construct alternative worlds. It is the very enterprise of drama" (pp. 141 - 142).

The strategies chosen for this study are movement, music (to stimulate freedom of movement), and control techniques within the drama to achieve a 'sense of belief' in the drama process. These techniques are part of Neeland's (1984) learning contract to encourage the children to participate without hindering another child's performance.

The children may conform at stages (e.g. in moving to music), but they need to retain a 'sense of self' in the characters as they advance through the process (Haseman & O'Toole, 1991; Jennings, 1992). The dramatic action may take on a familiar idea or skill for the participant. However, the actors are building on their existing knowledge while they negotiate either a 'literal' or 'metaphoric' meaning within the drama process (Courtney, 1990; Courtney, 1995). The experience for the actor is holistic in nature although parts of the drama may be explored.

The drama enables the participants to move between time dimensions and the themes that result from the drama are sometimes universal. Arnold (1994) states that, "Space and time expand dynamically beyond the here and now to impinge upon and deepen our constructs of the world and human behaviour"

(p. 18). Arnold (1994) believes that the affective and cognitive functions combine to "... deepen students' insights", within an imaginative time frame (pp. 21 - 22). Courtney (1990) expands on this by saying that in drama, "... symbols become felt realities" they are, "... cognitive elements available to our intellectual potential" (p. 125). Symbols are expressed in 'myth, dream, vision and art' (Jung, 1968). These images are universal but influenced by a person's affective, physiological and cognitive domain. In describing these symbols as 'hierarchical structures' Courtney (1990) states that:

> Cultures use symbols as a way of life or as a way of identifying fundamental belief systems. These symbols may be ambiguous or pure constructs that transform the imagination. These constructs give examples of metaphor in action and explain the 'hierarchical structures' that affect cognitive learning (p. 78).

Cultural contingencies, e.g., language, symbols and values may help to determine an individual's point-of-view, but similarities seem to exist in all backgrounds (Courtney,1990). Ways of making meaning of experiences involve cultural discourse, yet the literature suggests that all people use symbols, myths and religious experiences to make sense of their lives (Jung, 1968; Courtney, 1990; Courtney, 1995). Nicholaon (2000) states that language is not just 'decoding isolated images', but a continual process involving emotion and cognition. Language is engaged by individuals to participate in the drama, and to think about thinking (p. 3). Figurative language affects dramatic play and the learning outcomes. When we re-create these symbols in drama we are creating a world that is full of contrasting images.

2.3 Cognitive Theories on Problem-Solving

To understand the processes of thinking we need to understand how and why we think. Children need to store information gradually to retain it for future use. Overloading minds with too much information may limit the capacity to think and store information. Information processing takes practice and the acquiring of organisational skills to facilitate this (Norman, 1969). The information processing model outlines the processes of thinking as children assimilate ideas, thoughts and feelings into their memory (Woolfolk,, 1987). The children's sensory experiences and relationships to people and the world around them construct their thinking. Children often find meaning in the mundane or the ridiculous and patterns in the information they are processing (Costa, 1985, pp. 62-64).

Understanding memory and the way we process our thoughts and ideas are intrinsic to understanding how we solve problems. There is a relationship between what we intentionally learn and critical thinking. To solve a problem one must learn how to solve it. Learning is metacognitive as the children think their way through a particular problem (Smith, 1990, p. 42; Oxman, 1993; Wagner, 1998).

Taylor (2000) and Courtney (1995) state that the in-role drama experience encourages reflection and thinking because the children listen, interact and explore different problems. The children interact, create meaning and build knowledge. The children create meaning partially or holistically by problem-solving in a social world (Courtney, 1995; Greene, 1995). Taylor and Courtney believe that in-role drama makes the children more perceptive and as their thinking becomes sharper they become more acutely aware of their character's feelings through empathy.

Rogoff (1990) discusses problem-solving as part of the whole process of thinking. The 'integrated mental processes' used in problem-solving include remembering, planning and categorising. For instance, the cognitive processes could include the ability to use technology and in determining how to reach personal goals (p. 9). Rogoff (1990) states that cognition has a socio-cognitive context as thinking is active and the goals of problem-solving are determined by both social and cultural contexts (p. 6).

In determining how children develop both cognitively and affectively Paul (1984) states that we need to prepare children at an early age to develop cognitive and affective processes that enable them to communicate, problem-solve and socialise effectively as adults (p. 5). Kohlberg (1987) states that in Baldwin's theory, the child generates a social self through imitation. In imitating others the child is coming to grasp the perspective of the person or role being imitated.

This study utilises a socio-cognitive perspective to develop the students problem-solving skills, engage in social interaction and reflect on the nature of the symbols they create as the study progresses.

Bruner (1983) believes that when the children create symbols in drama the participants actively manipulate their environment to understand what they have constructed. For students K-7 are, 'active meaning makers' capable of expressing, "... their understandings ... in symbols - in gestures first, then in word, drawing and, finally, in written language" (Wagner, 1995, p. 63).

Tishman, Perkins & Jay (1995) describe six cultures of thinking which relate to this socio-cognitive viewpoint:

- a language of thinking:
  terms of concepts used in the classroom to talk about thinking, and how language can encourage higher order thinking.

- thinking dispositions:
  student's attitudes, values and habits concerning thinking.

- mental management:
  (metacognition) thinking about their own thinking processes.

- the strategic spirit:
  special kind of attitude encouraged in a culture of thinking ...

- higher order knowledge:
  looks beyond the factual knowledge of a subject matter and
  focuses on knowledge and know-how about the ways of solving
  problems ...

- transfer:
  applying knowledge and strategies from one context to another,
  and exploring how seemingly different areas of knowledge
  connect to one another (pp. 2- 3).

It is interesting to view the conflicting viewpoints of two theorists: Piaget and Vygotsky. Vygotsky believes that skill needed some form of collaboration to develop. Vygotsky believes in the social development of a group building on each others cognitive skills, especially in language (Rogoff, 1990, p. 192). Bruner (1983) agrees that collaboration is highly effective in solving problems. However, Piaget focuses on the individual and researched the mathematical reasoning of an individual to develop skills.

Piaget, a cognitivist, states that each child's level of understanding could be distinctly different from years one to seven. As he describes in his four stages of cognitive development, the Formal Operational level at 11 - 15 years is one at which children may think abstractly and formulate ideas (Piaget, 1962; Woolfolk, 1987, p. 55; Courtney, 1990). Although Piaget has been criticised for the small control group he used in his studies, some in-role practitioners agree that the level of a child's cognitive development needs to be taken into account when observing changes in behaviour (Woolfolk, 1987, pp. 50 - 71; Sowden, 1988, p. 48; Jennings, 1990; O'Toole, 1994; Verriour, 1994; Wagner, 1998).

Vygotsky (1978) states that 'the zone of proximal development' is the difference between what the young learner can achieve on their own and what they can achieve with help. Children need constant support to be able to develop their thinking. The support comes from either the teacher or other children in the group. This is 'scaffolding' or building on existing knowledge and experiences to create a new understanding (Bruner, 1983; Woolfolk, 1987, p. 71). Skills are introduced and developed by the more experienced learners that encourage the learner through the drama. They can develop a framework to help one another find meaning in their new situation (Giffin, 1984) as the children use their imagination to discover 'two possible worlds', the real and the imagined (Bruner, 1986). Boal (1985) believes this provides children with their own imaginative space and thereby enhances the dynamics of play.

Research into collaboration between peers has achieved greater recognition as it shows evidence of encouraging cognitive development such as the children co-operating as a group to accomplish the tasks set for them by the teacher (Moll, 1994, pp. 167 - 168).

Paul (1988) agrees that collaborative learning encourages student learning by focusing on issues that support shared discourse. He states classes that encourage talk, especially on different issues, increase learning (p. 5). Taylor (1994) also refers to "... a shared discourse" (p. 8).This is a form of communication where children can participate in the drama processes as a democratic environment.

Weinstein (1992) describes Paul's beliefs on problem-solving as an important step forward in educational practice; as adjusting our thinking carefully to develop skills, such as confidence and perseverance (pp. 9 - 10). Paul (1988) asserts this as 'the emerging critical theory of knowledge' whereby '... students need to be taught how to listen critically' (p. 4). Paul maintains that to become

an active listener a student must acquire some level of proficiency in problem-solving (p. 4).

In discussing how students make reasoned judgements Johnson & Johnson (1988) assert that effective problem-solving encourages children to solve complex problems by learning a higher-level of reasoning (p. 64). Furthermore, Rogoff (1990) and Bruner (1986) believe that the sharing of knowledge may allow for a greater understanding of the problem needed to be solved. For they believe that, "Communication and shared problem-solving bridge the gap between old and new knowledge and between the differing understanding of partners" (p. 196).

Rogoff (1990) states the importance of encouraging problem-solving guided by a more experienced person through some form of social interaction. Rogoff points out this type of 'guided participation' can be achieved through problem-solving activities. The children learn, "... responsibility for managing their problem-solving," through the assistance of people interacting with them in their environment (p. 191). This model requires 'joint problem-solving' and guidance by a skilled person (p. 140). Rogoff suggests that when children collaborate and work on a mutual problem they achieve significant improvements in skill (p. 177). A drama teacher may increase the problem-solving skills of the students through the collaboration of ideas and thoughts.

Paul, Binker, Martin, Vetrano, and Kreklau (1989) recommend fostering problem-solving by role-play, brainstorming and thoughtful discussion (p. 35). They also point out the importance of integrating cognitive and affective areas to promote the development of higher-order thinking (p. 5). Brooks & Brooks (1993) state that a powerful tool for change is social interaction through the communication of peers. This form of 'social discourse' has a positive impact on the student's ideas and how they reflect thereby encouraging meaning-making (p. 108).

The Beazley Report (1984) states that the main aim of schools today is to encourage thinking skills rather than simply to disseminate facts. This enables schools to, "Develop analytical and thinking ability, and to foster intellectual depth" (The Beazley Report, 1984) in students.

To understand and solve a problem it is often necessary to explore it from different angles and perspectives. To reiterate, problem-solving involves, "... using basic thinking processes to resolve a known or defined difficulty; assemble facts about the difficulty and determine additional information needed; infer or suggest alternate solutions" (Costa, 1985, p. 45). In this study the children are encouraged to use their thinking processes to resolve the difficulty facing them as the aliens land in their fictional town: the children must assemble facts, evaluate different points-of-view and value the opinions of others to arrive at solutions to their dilemma.

2.3.1 Emotional Awareness

Social interaction needs to be developed through scaffolding and building on the student's ideas (Vygotsky, 1978; Bruner, 1983). Social skills are important to build relationships, leadership skills and emotional awareness (O'Neil, 1996, p. 6). Goleman (1995) comments that children's emotional or affective development must be improved for them to deal with problem-solving effectively. Although the researcher agrees with Goleman the terms 'emotional awareness' and 'affective abilities' are preferred to Goleman's use of the term 'competencies'.

In discussing the interdependent nature of cognition and the affective processes Rose (1993) states that, "... cognition cannot be divorced from affect" (p. 38). Children's emotional responses to a situation may vary depending on their age, attitudes, beliefs (Flavell, Miller & Miller, 1993, p.190) and the effect of socialisation. Cognition and memory recall may help a child to develop

awareness of their emotions (Harris, 1989). When children are in a group and are problem-solving the experience may trigger an emotional response.

The four elements of spontaneity and creative process are curiosity, complexity, risk-taking and imagination (Dalton, 1985; De Bono, 1973; Courtney, 1990; Greene, 1995). The cognitive processes combine with these spontaneous abilities to enhance the creative thinking processes when techniques stimulate this understanding. As with cognition, the affective abilities help us to understand the processes involved in creative thinking.

Improved creativity and problem-solving skills enable children to create new worlds and further develop these abilities by deepening the experience (Dalton, 1985). This may develop a greater understanding of other children's views and thereby the ability to empathise with others. In discussing the learning that takes place when empathy is encouraged Arnold (1994) asserts that teache : can "... encourage a dynamic between affect and cognition and, in turn deepen students' insights" (p. 22).

Older children's affective abilities become more complex as they develop. Harris (1989) believes that children can have 'cognitive control' over their emotions and discriminate between masked or real emotions. In defining what impact emotions have on people's lives Flavell, Miller and Miller (1993) state that to be successful socially an individual must understand their emotions (p. 189).

2.4 Problem-solving Strategies and Drama

Pettigrew (1994), Smith and Herring (1994), and Riherd (1992) all state that drama encourages the development of problem-solving skills in children. The drama teacher may integrate a number of teaching strategies such as

discussion, role-play and improvisation into the lesson to stimulate this development. Problems posed by a drama lesson may stimulate children's decision-making skills and allows them to focus on areas or issues of particular relevance to them (Riherd, 1992).

Drama allows for social interaction within small groups, the whole class or individual activities (Akin, 1990; Hensel, 1991; Berghammer, 1991). Dramatic play may allow for the development of problem-solving skills and to encourage the children to express a new way of thinking (Rogers & Sharapan, 1993, pp. 5 - 9). Use of dramatic play enhances social skills and provides a 'lifelong resource' for children (Rogers & Sharapan, 1993). Children may use drama as a way of constructing forms of improvisational play and to explore conflicts in society (Philbin & Myers, 1991; Seidel, 1992; Rogers & Sharapan, 1993;Sickbert, 1993). Children can act-out and discuss a variety of situations as a group designed to improve or resolve a dilemma (Philbin & Myers, 1991, pp. 179 - 82).

Teaching drama may lead to developing, "... the skills of social sensitivity, problem-solving and conflict resolution" (Hensel, 1991, pp. 4 - 6). In Dyson's (1993) case study the researcher hopes that studying the, 'complex world negotiations' taking place in the K1 classroom will enable them to offer, "... insight into how other educators ... might take advantage of the social world and discourse knowledge and know-how children bring" (p. 29).

Sickbert (1993) devises a strategy whereby she creates an imaginary situation for a town to solve dealing specifically with environmental issues. This activity aims to develop decision-making skills and promotes problem-solving and motivation (Vines & Yates, 2000).

Sickbert (1993) and others findings show that there are connections between the use of drama strategies and the development of cognitive thinking and

emotional awareness. The drama-related activity stimulates problem-solving and socialisation leading to a motivated group of individuals whose developmental needs are catered for in a socially active environment (Hensel, 1990; Dyson, 1993; Vines & Yates, 2000).

2.5 Problem-solving Strategies and In-role Drama

Myers and Berman Cantino (1993) state that in-role drama enhances problem-solving strategies in children. Their research study analyses certain teacher behaviours, such as being in or out of role. These behaviours affect and promote the problem-solving of children from years one to seven in an informal drama setting (p. 11). Another finding is that in-role drama strategies appear to increase the children's cognitive levels. The study found that "... teacher questioning and structuring in-role enhanced the amount of children's evaluative and divergent thinking most" (p. 13).

Myers and Berman Cantino (1993) detail the results from three sets of sessions:

- Town Meeting;

- Medieval Ladies Part I and III;

- Medieval Ladies Part II.

In the Town Meeting, (lesson one), the children decide to dramatise a time machine story. In lesson two, a town meeting is held to motivate the children. The children building the machine must defend it and answer questions such as, "How does it work?" and "What if something goes wrong?" (p. 14). The drama leader, or teacher in-role, uses structured questioning to stimulate interest in the lessons and to resolve conflict that had arisen.

In Medieval Ladies Part I and III, three drama leaders dress in medieval costume, before the children enter, and take on the roles of women sewing. When the children enter the drama space the leaders question them. For example:

> Leader: 'Is there anything you'd like to know about how we live that you could not figure out for yourselves?'
> Child: 'How come you dress that way?'
> Leader: 'Well that's how everyone dresses ... How come you dress that way?' (p. 15)

From the beginning of the lessons the leaders stimulate the discussion. The children had prior knowledge of the historical period as it was the subject of class research. By contrast, in Medieval Ladies Part II the participants had no prior knowledge of the period and instructions are given out-of-role by the drama leaders.

To analyse these sessions Myers & Berman Cantino (1993) assert that particular behaviours relate to specific patterns in verbal behaviour and listed these as they occurred (p. 11). The following categories were used for analysis:

- Routine (R): social reinforcement, agreement-feedback, management, structuring, muddle, verdict, irrelevant;

- Cognitive-Memory (C-M): fact, recapitulation, clarification;

- Convergent Thinking (CI): explanation, conclusion, invented fact;

- Feeling (F): report of inner state;

- Evaluative Thinking (ET): judgement;

- Divergent Thinking (DT): elaboration, implication, synthesis
(Myers & Berman Cantino, 1993, p. 12).

However, as the system did not describe the teacher behaviours that follow high level child talk, Myers & Berman Cantino developed a new method. The coding system assigns an utterance to each cognitive level, defined as a

Statement (S), or Question (Q). Speakers are identified by gender, such as a boy (B), a girl (G), or sex indeterminable from the tape (U). The gender labels were given to determine where the utterance came from and if it had any bearing on the particular behaviour encountered. The adults and the children who spoke, "... frequently or at consistently higher cognitive levels are identified by their initial" (Myers & Berman Cantino, 1993, p. 12). Coded transcripts are either: tallied to show 'discrete variables' in different lessons containing high-level talk between child and teacher, while also classifying the child who lacks these attributes; or placed on a flow chart on normal graph paper to display verbal events. The flow chart enables the researchers to outline the essential features of verbal interaction that lead to consistent patterns of talk. These features include:

- clusters of high level talk;
- a volley of talk between teachers and children;
- interactions limited to teacher-to-teacher talk;
- child-to-child talk and;
- monologues (Myers & Berman Cantino, 1993, p. 13).

As each transcript is examined and compared to other transcripts, regular patterns start to occur. Myers & Berman Cantino note, incidentally, that there appeared to be a relationship between teacher high level talk, in-role drama, problem-solving and increased high level talk in the children. Transcripts that show low level talk in the teachers related to decreased cognitive levels in the children (p. 13). Low-level talk refers to a lack of problem-solving in the discussions during the drama sessions. High level talk occurred when teachers and students collaborated and discussed in-role.

This study coded and categorised data, including interview transcripts, in a similar way to the Myers & Berman Cantino studies. However, in their study

the connection between in-role drama and the problem-solving skills of the children was seen as an incidental finding. This thesis differs from the above study because it aims to specifically code and categorise the variables which influence, or encourage the use of, high-level talk and problem-solving skills in the children to identify any link to in-role drama.

2.6 Conclusion

The Myers and Berman Cantino (1993) study observed how in-role drama supported the development of problem-solving skills through the imagined experience. The symbolism created in this environment stimulated students' abilities to reason and make value judgements. This research offered the teacher new opportunities for students to improve their problem-solving and social skills. In-role drama proved useful to educators as a strategy for conflict resolution.

The present research study will attempt to answer a number of pertinent questions.

- Is Neeland's drama contract an effective negotiation tool in the final reflections of the interviews and discussion sessions?

- Will the results confirm the findings of Pettigrew (1994) and give evidence of the students' problem-solving skills?

- Do Courtney's (1990) and Fontana's (1993) symbolic definitions identify the different symbolic imagery used by the students?

Chapter Three

THEORETICAL FRAMEWORK

"I am constantly amazed by the miracle of how thinking (planning) about a
dramatic idea can in an instant become that of carrying it into action".

- Heathcote, cited Goode, 1983.

3.1 Developing a theoretical framework for in-role drama

Planning the structure of the drama, the spatial relationships, time allocation,
role of the participants, and the fictional setting to place the participants in was
an important part of developing the theoretical framework. Heathcote (cited
Goode, 1983) stated that there were two aspects to consider in frame, the
'action' needed for progress and an initial 'perspective' for the participants to
take. These two things provide, "... (a) tension and (b) meaning" (Heathcote
cited Goode, 1983).

Providing the children with a framework enabled them to negotiate new
meaning within the drama. The drama was a meeting place of ideas and
experiences. This provided the children with the opportunities to formulate
different alternatives to suit the action of the drama. The drama provided the
children with the opportunity to develop their expertise and put it into practice
by way of making decisions in the virtual social world of drama.

Wagner's (1995) ideas on constructing a theoretical framework drew on many
drama theories. Wagner developed her own drama framework by using
examples from the works of Slade or Way, and others. As Deverall (1988)

stated mapping your own territory can be a fulfilling experience because you create a personal truth from the experiences you meet with. Mapping the territory for this study allowed the researcher to develop the structure of the drama and to create new meaning for a drama experience in which the children were engaged in developing their problem-solving skills.

The socio-cognitive framework for this study was developed by combining the theories of Piaget and Vygotsky with research on in-role drama and cognitive, social and emotional functions. Vygotsky (1978) believed that the arts and cognition worked together to develop social and problem-solving skills. In-role drama practitioners such as Bolton (1984) and Haseman and O'Toole (1991) insisted on the importance of developing group skills to further problem-solving acquisition. This was substantiated by a number of cognitive and socio-cultural or constructivist theorists that agreed that social interaction encouraged problem-solving because it enhanced abstract thought and empathic understanding (De Bono, 1973; Vygotsky, 1978; Bruner, 1983; Bolton, 1984; Paul, 1984; Dalton, 1985; Haseman & O'Toole, 1991; Rogoff, 1990; Errington, 1992; Oxman, 1993; Arnold, 1994).

In this study when the children developed new skills and acquired greater knowledge capacity they created their own set of semantics, or meanings. Gardner (1989) stated that these skills, "... can be mobilised in the service of meaning. They are the forms of symbolisation" (p. 228). These semantics, or understandings, were explored through movement, drawing and acting-out. The children devised their own understanding of the situation, the people that were affected by it and how they resolved the situation. The children were provided with the opportunity to create their own symbols representative of the affective and cognitive domains. They were then able to determine the outcome of the drama and develop their own symbolic language (See Figure 3.1).

EMOTIONAL ◀▶ IN-ROLE ◀▶ PROBLEM-
AWARENESS   DRAMA   SOLVING

imagination   teacher/student   resolving conflicts
value judgements   participation   interacting
believability   acting-out
commitment   movement
                                            drawing

↓ ⬈   ↓ ⬈   ↓

EMPATHY   METAPHOR   EXPERIMENT

⬈   ↓   ⬈
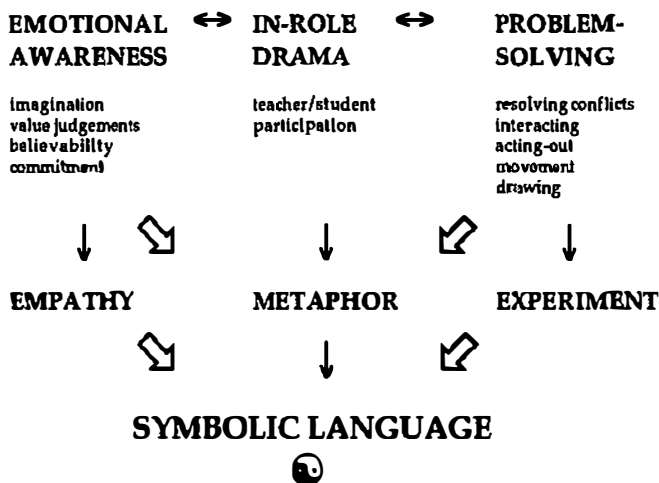
SYMBOLIC LANGUAGE

Figure 3.1:   The development of a symbolic or universal language through
              the expression of ideas and creativity in a group situation.

Courtney (1990) devised the term 'emotional' theorists to describe those involved in affective studies. Emotional theorists devised techniques to determine how pure and literal images demonstrated social constructs. These images were treated as 'universal' because the themes related to everyday life. Organisation of these emotions created sophisticated structures that defined the children's feelings as either ambiguous or as a paradox (McLeod, 1982; Fischer, Schaver & Carnochan, 1989, pp. 109 - 112; Courtney, 1990). Relating cognitive functions to these structures allowed for the evaluation of their impact on social interactions. Integrating the Arts with the cognitive processing strategies may assist in managing our emotions more effectively by teaching us to empathise and use our creative abilities (Courtney, 1995; Curriculum Council, 1998).

Monitoring specific needs and attitudes was essential in helping the children to improve their social and decision-making skills. Eisner (1979) defines this as the three aspects of critical reflection needed to monitor the children's performance which include, "... a descriptive aspect (involving portrayal in words), an interpretative aspect (involving the meaning of a situation to those involved) and an evaluative aspect (involving appraisal of educational values)". This study achieved this critical reflection through the journal, the symbolism and the student reflections.

Eisner's (1979) model of self-evaluation allowed the children to become insightful problem-solvers through dramatic experimentation and group reflection. The study examined the interactive behaviours of children being socialised in small group activities. The children were experiencing intensive socialisation with a dramatic emphasis (Wagner, 1995). They were not usually familiar with co-operating in this type of environment and needed to evaluate and discuss how to work together. Initiating a reflective strategy was difficult because the children were unsure of the expectations of the group. Social Reconstructionist theory enabled the analysis or evaluation of the effect of in-role drama on the children's social skills (Errington, 1992).

The students may have needed the in-role drama technique because it stimulated discussion through a combination of the teacher's participation in-role and the children's commitment to the imaginative world they had constructed. The power of the dramatic imagery influenced the level of discourse. The children were focused and motivated to plan and develop their drama (Wagner, 1998).

This type of investigation enabled the researcher to focus on in-role drama and the development of problem-solving skills. Myers and Berman Cantino (1993) agreed that drama research offered opportunities to analyse a variety of drama teaching strategies to monitor the effects on different behaviours. Their

methods included videotaping and de-coding teacher/student interactions to observe changes in cognitive behaviours and verbal cues during role-play and discussions. This type of structure gave them a flexible and reliable instrument for analysis (pp. 11 – 13).

This study placed an emphasis on group work, listening, assertive skills, self-esteem, cognitive processing strategies, creative thinking and intuitive enhancement. These facets of drama and problem-solving stimulated the children's involvement and their ability to solve problems while acting-out different situations.

The socio-cognitive framework allowed the development of drama-related concepts that specifically looked at problem-solving. It was important to never lose sight of what the study had set out to do originally. That is, the development of the problem-solving skills of the children when the teacher and the children were in-role within the drama process and as the case study progressed, the nature of the children's use of symbol and metaphor. The researcher used discretion in determining whether to accept information that related to areas such as emotional awareness as additional data, for the main objective of a case study was to investigate new information and identify the specific connections to the research questions (Bassey, 1999).

Chapter Four

METHOD

4.1 Introduction

This chapter outlines the procedures used to determine whether having the teacher or children in-role within the drama process develops the problem-solving skills of eleven year olds. This research is a case study and the relevance of this approach is discussed and the procedural methodology described. The five lesson plans are presented in detail. The means of data gathering are outlined. The chapter concludes with a description of the techniques used to analyse the data and the format for the presentation of the findings.

Summary of Lessons
1. Alien Landing
2. Symbolism
3. Theatre Games and Decision-Making
4. Discussion and Rehearsal of Ideas
5. Reflections

Data Gathered
Session 1. Interviews, Work Samples, Journals & Memos
Session 2. Interviews, Work Samples, Journals & Memos
Session 3. Interviews, Work Samples, Journals & Memos
Session 4. Interviews, Work Samples, Journals & Memos
Session 5. Interviews, Work Samples, Journals & Memos

Analysis
Coding and categorising of data to identify problem-solving and in-role drama in each session.

Figure 4.1:   Summary of lessons, data gathered and analysis.

4.2 Background

This study investigates whether in-role drama stimulates the cognitive processing strategies that affect problem-solving. A socio-cognitive way of thinking is used as the students engage in social interaction and explore the drama as a group. Consequently observation of a group of students interacting in a social setting is required. The methodology involves a case study approach because this is appropriate for research concerning social interaction (Bassey, 1999). Bassey (1999) states that case studies acknowledge, "... the complexity and 'embeddedness' of social truths" while recognising, ... something of the discrepancies or conflicts between the viewpoints held by participants" (p. 23). Bassey (1999) discusses the seven stages of researching a case study:

- Stage 1: identifying the research as an issue, problem or hypothesis;
- Stage 2: asking research questions and drawing up ethical guidelines;
- Stage 3: collecting and storing data;
- Stage 4: generating and testing analytical statements;
- Stage 5: interpreting or explaining the analytical statements;
- Stage 6: deciding on the outcome and writing the case report;
- Stage 7: finishing and publishing (p. 66).

Sturman (1994) believes that a case study offers a holistic approach to research because it enables the observation of human traits in their entirety and allows that they work interdependently as a system. In the case study it is also possible to use a variety of techniques, both qualitative and quantitative. Predictions or generalisations gathered from this type of investigation depend on viewing the parts of the study and the emerging patterns interdepentently (p. 61).

This study also explores the nature of the children's use of symbols and metaphor and their meanings. Analysing meanings is fundamental to developing an understanding of how people respond to a situation. These meanings are often derived by observing a group of people to determine their particular behaviours. How the group responds to what they encounter determines the final outcome (Blumer, 1969).

Case Studies are ambiguous in nature and analysis must take into account the 'symbolic interactionist' school of philosophy is concerned with the processes that link individuals and society (Mead, 1934). This study will enable the discussion of the social processes, experiences and behaviours symbolic to group interactions. The group can then create their own realities and act-upon them (Strauss, 1987). This means that the development of the case study is directly affected, "... by feedback of information which can guide revision and refinement of the action" (Bassey, 1999, p. 28).

The case study allows the researcher to accept uncertainties that emerge during the analysis of the data following each drama session. This helps to redefine the research questions to make them more relevant and identify incidental occurrences as they appear in the sessions. This enhances drama research by integrating the different procedures in the organisation of the research questions, data and related literature into categories (Denzin & Lincoln, 2000).

The case study is naturalistic in style as it creates generalisations and observations to provide insight into the social world being investigated. It is a flexible method encouraging further research as it allows for re-examination of the study. It is purely reflective in practice as it stems from an epistemological strategy of comparison. It is uncertain, but its uncertainties create new paradoxes (Denzin & Lincoln, 2000, pp. 442 - 445).

Simons (1996) points out that paradox is the point of case study. To live with the ambiguities of life and to challenge the certainties is to see the research in a new light. Stake (1995) states that case study, "... is an integrated system" with many different parts, some of which may not be functioning that well, but still operate as a system (p. 2). This allows for ambiguity as 'fuzzy generalisations' or the use of, "... fuzzy logic in educational measurement"; something may happen but you cannot be certain (Fourali, 1997, pp. 129 - 148). In drama outcomes are rarely a certainty, but there is always a process involved.

To validate a case study the researcher must determine its trustworthiness by comparing the observations with other forms of research. The researcher can then view the data to see if it is transferable to further research. All factors need to be taken into account to avoid any bias or lack of credible evidence to support the findings. Yin (1994) states that validity is enhanced in case studies because they deal with more variables than data and require 'multiple sources of evidence'. The use of journals, interviews and sampling of work increase the studies interpretive qualities. Data needs converging in a 'triangulating fashion' to guide the collection of data and further analysis of the study being investigated (p. 13). In fuzzy logic the researcher must remember that the outcome of a study is more of a probability than a certainty (Hargreaves, 1998, pp. 47- 55).

4.3 Research Participants

This research involved two groups of Year Six students from a low-medium socio-economic area in Western Australia.

The participants consisted of five students, three girls and two boys. Data was gathered in five 35 minute in-role drama sessions and five group interviews

conducted over a five week period. Re-interviewing procedures allowed the collection of more information as needed.

4.3.1 Ethical Considerations

Parents received consent forms from the school seeking permission to access the children needed for the study. The children were selected by the classroom teacher. New names were given to protect the privacy of students. The drama needed to be suitable for the age intended for this study and the researcher had to take into account their safety and welfare during the drama sessions. All data collected from the children was returned to the school.

4.3.2 Prior Knowledge and Problem-Solving Development

According to the class teacher the children lacked experience in drama, group work and problem-solving. The children had no previous drama experience beforehand. The class teacher stated that he did not evaluate problem-solving or group skills as such and that these skills were observed only incidentally during class work. He said that the development of problem-solving skills was not a central concern as it was not a requirement for him to assess the children on their problem-solving or group work.

Evaluation forms were accessed to view the children's prior knowledge of problem-solving, drama and group skills. This enabled the researcher to determine if there was a distinctive change in the children's problemsolving skills at the end of the data collection.

The drama contract (See Fig. 2.1) was used to evaluate the in-role drama process by setting guidelines for both teacher and student. The contract took the form of a verbal agreement between teacher and students to fully commit to the drama process.

4.4 Lesson Plans

The lesson plans for this study outlined the methods to show evidence of the children's group skills, problem-solving and symbolism within the drama experience. It was necessary to plan over a five week period to ensure the development of skills while in-role. The time was allocated to the researcher by the school as they were going on holidays. Drama techniques in the form of theatre games, character journals, writing letters in-role to other characters, in-role teacher initiating a scene, teamwork - fluid sculpture, movement to music and out-of-role reflection are used in the study.

Session One: Alien Landing

1. The teacher introduced the research project and outlined what the children will be doing for the five weeks.

2. The teacher informed the students that when the teacher was wearing a hat the teacher was in-role and when the hat was removed the teacher was out-of-role.

3. The background story: An alien spacecraft had landed in an imaginary town. The people of the town must decide what to do, whether they would take a passive or a violent action towards these visitors from another world. The teacher in-role as Mayor of the town was a guide in the drama and did not influence the decisions of the townspeople. The Mayor gathered council members to the Town Hall to discuss the matter.

Brainstorm - TOWN MEETING - A town meeting took place at the beginning and conclusion of each session. The meeting aimed to initiate a scene, set a problem or to reflect on a sequence of events and lead to a final solution about the aliens. The teacher in-role acted as a guide for the group. The final decisions were made by the students alone.

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Sample questions:
What type of town is this?
Who are the people that live in your town?
How would the townspeople move and talk?
What do they do for a living?
How would you react to the alien invasion?
*Does the town have any artefacts or objects that they could use to represent their town to the aliens? (This is a follow-up question for next week).

Session Two: Symbolism

Activity One

1. TOWN MEETING - The teacher in-role as Mayor read out a letter from the aliens to the council members. It was deciphered by the town observatory to read as follows:

We come in peace from a galaxy 750, 000 light years away. We have come here to learn more about your people - your way of life, feelings, technology, customs and natural resources. We hope we may take back with us a symbol of your world, something that represents why you live the way you do. My people, the Ezonarians use a form of dance to symbolise our love for nature and our planet Ezonar. We hope to share with you this dance when we arrive. We hope to see you soon.
Gandar
(Chief Elder).

Activity Two

1. The teacher gave an example of a painting used to depict emotions in music (See Appendix one). The teacher explained that lines and colours in a drawing or painting could depict emotions and rhythm in music. Artistic ability was not a requirement of this exercise. A simple line to denote a feeling or an identifiable symbol was all that was necessary. A free, relaxed style of drawing to different types of music was one of the main objectives of this activity. The children chose the classical music in a prior discussion. It was necessary to

motivate the children to draw a variety of symbols rather than have a set picture or image.

2. Children found a space with their paper and textas.

3. The children listened to the music and drew the emotions and symbols that they felt represented their imaginary town.

4. Whole class reflected on activity by interpreting the music during discussion time.

5 Teacher listed the symbols in each child's drawing.

6. Teacher created a fluid sculpture using the symbols found in each child's drawing (e.g. War and peace, using pink fabric, a necklace and a mask.) The teacher placed the objects in the middle of the drama space so the children could access them for each sculpture. The teacher chose these pieces to change their image from the Mayor to the alien.

7. One person started the sculpture and when they were in position the next person stepped in until all members were positioned like statues in a gallery. The first person stepped out and observed the others, then the next person, without disturbing what remained of the sculpture. The children took turns in stepping out and viewing and commenting on the sculpture.

8. The children demonstrated the symbols in the drawings by creating their own sculptures. The teacher acted out the different sculptures, in-role, with the group.

9. The teacher and students reflected and discussed the lesson.

Resources

*Tape recorder, taped music - 'Canon in D Majeur' by Johann Pachelbel, 'Human Behaviour' and 'Townspeople' by Bjork.

Print of Impression V - Park 1911 by Wassily Kandinsky

*Paper & textas.

*2 metres of pink fabric, a silver necklace and a gold mask (These items were chosen to help the in-role teacher change their image from Mayor to alien).

Session Three: Theatre Games and Decision-Making

In session three the teacher initiated a discussion about how to proceed with the alien landing. It was also used to check on the children's progress through the sessions to see if the children had developed decision-making skills and could reflect on the drama experience in a critical manner.

Activity One

1. Theatre Games - The children were placed in a circle and re-created the town and the alien spacecraft by playing theatre games.

2. Theatre Sports- The children took turns acting out different situations. One child stepped into the middle and set a scene. When the teacher yelled 'space jump' another child jumped in and acted out the scene. The third person jumped in when 'space jump' was next called and the first child jumped out to create a new scene.

Activity Two

1. Journal Writing on experience while emoting to music (Ten Minutes).
What they have done so far?
Write a letter to an alien about symbols and meeting place.

Drawing of symbols.

2. Children reflected on the experience.

Session Four: Discussion and Rehearsal of Ideas

<u>Activity One</u>

1. Town Meeting - The council members and the Mayor decided how to demonstrate the symbols of their world to the aliens. (Placed ideas into suggestion box).

<u>Activity Two</u>

1. Children worked on a fluid sculpture and demonstrated the symbols that represented their imaginary world.

2. The teacher acted as a guide for the children and helped the students come to a conclusion for Lesson Five about the content of their fluid sculpture.

3. The children used the pink fabric, necklace, mask and the music that suited their chosen time period to give them ideas. The children were encouraged to work together as a group to choose their music and costumes for the final piece.

<u>Resources</u>

* Tape recorder, taped music - alien dance, Mir Stanke Le, 'Le Mystere Des Voix Bulgares', By Trio Bulgarka. Fifties piece - 'Stand By Me', by Ben E. King. Nineties piece - 'Human Behaviour', by Bjork.

*Fifties costumes - dresses, suits and costume jewellery.

* Suggestion Box - put ideas in.

Session Five: Reflections

<u>Activity One</u>

1. Town Meeting - Prepared for the alien landing. The children organised the meeting place and went through the final rehearsal of their sculpture.

2. The teacher in-role as the alien prepared the alien ritual dance with the group.

<u>Activity Two</u>

1. The teacher performed the alien ritual dance while the townspeople watched. The alien encouraged the townspeople to join in the dance. The alien chose a council member to receive a present from the alien's planet. The teacher stayed in-role as the alien throughout this piece.

2. The children performed their fluid sculpture.

3. The teacher and children reflected on the lesson. Teacher and children negotiated on the drama contract to assess its effectiveness. Teacher noted if the in-role was effective and if the children were able to evaluate their performance and demonstrated an understanding of how they improved their skills.

4.5 Data Gathering

Data gathering was conducted over a five week period. Table 4.1 shows the data gathered in each of the five sessions.

Table 4.1:   Data gathered from the five lessons

DATA	LESSON 1	LESSON 2	LESSON 3	LESSON 4	LESSON 5
Interviews	✔	✔	✔	✔	✔
Memos	✔	✔	✔	✔	✔
Journals	✔	✔	✔	✔	✔
Work Samples (letters, drawings, symbols, suggestion box)	✔	✔	✔	✔	✔

4.6 Collection of Data

The data was collected from interviews, observations, memoing, journals and work samples. All available data was coded for analysis. An explanation of each follows.

Interviews - Five ten minute focus-group interviews were conducted and the interviews were audio-taped, transcribed and de-coded into categories for analysis.

Observation - While both in-role and out-of-role the teacher observed the children's social interaction, drama work and problem-solving skills. The teacher stepped out of role to observe the students interaction, took notes and then returned to the drama to start new observations.

Memos - Ideas and observations were kept on index cards for easy access and thus became additional data. Carroll (1996) notes that, "Memos are written by the researcher in drama at all stages of the procedures. They are essential procedures which enable the drama researcher to keep an ongoing record of the analytic process" (p. 81). Memos were written after each activity and during the process when the teacher could 'step out' of role and not interfere with the flow of the drama.

Journals - Each group session contained a reflection time. Both teacher and students made notes or drew in their individual reflection journals in these times. The children recorded their reflections and any observations on the teacher's in-role effectiveness. These were later analysed for evidence of any link to problem-solving (Ross, Rideout & Carson, 1994, p. 415). That is, any remarks that showed the children were evaluating the drama processes were categorised as student reflections and marked with an asterix to establish a link to problem-solving.

Work Samples - Drawings, letters, suggestion box and symbols which had been done in each drama session were collected and allocated as a separate category.

Data Triangulation - This was the analytic procedure undertaken to analyse different types of data to valdate the research questions (Mathison, 1988; Kimichi, Polivka & Stevenson, 1991, p. 364; Yin, 1994). The triangulation process converged the interview, work samples and the observational data to see if in-role drama developed problem-solving skills in the children (Mathison, 1988).

Validity was maintained by keeping the memos separate from the rest of the data (Carroll, 1996, p. 81). Triangulation clarified the meaning of the observations and interpretations of the case study by repeating them to check their validity. It identified the phenomenon being investigated (Denzin & Lincoln, 2000, pp. 443 - 444).

4.7 Design

Using comparative analysis, data was organised into a socio-cognitive framework (See Chapter Four: Theoretical Framework). Data was theoretically coded onto diagrams to identify comparisons. Carroll (1996) stated that, "Constant comparison is a central tool of analysis, as new knowledge is acquired so new concepts are developed that have conceptual density" (p. 81).

Comparative analysis of the data gave a broader focus from which to gather information. However, it was important to remain on task and not move away from the original research questions. That is:

1. Do children develop their problem-solving skills when the teacher is in-role?

2. When children are in-role within the drama process are their problem-solving skills developed?

Dalton (1985) and De Bono (1973) describe four cognitive processes, fluency, flexibility, originality and elaboration that demonstrate evidence of problem-solving skills. An effective form of categorising will determine if the drama stimulated the children's problem-solving. In this study the children's problem-solving was categorised using structured, open-ended questioning in the lessons and interviews. For example:

FLUENCY - The children generated a variety of responses, with the intention of creating more ideas, which increased the chances of originality. "How would the townspeople react to an alien landing?"

FLEXIBILITY - Examining a problem from a different perspective to demonstrate flexibility. "Write a letter, in character to the aliens telling them where you would like to meet and what symbols you will be using". Children showed their flexibility by trying out different strategies to improve or manage their situation.

ORIGINALITY - Devising a number of solutions for any given situation to create a unique and original thought. "How can we symbolise our world to the aliens?" Creating symbols to demonstrate their world to the aliens inspired the children to be original, because the situation was outside their experience.

ELABORATION - Examining the patterns that occur with any given idea and making these ideas exciting and stimulating by bringing them together. "How can we use the symbols we have drawn to create a dance for the aliens?" The children show elaboration by expanding on their use of the symbols in dance.

4.8 Data Analysis

Data analysis involved coding and categorising interview transcripts of classroom dialogue, that were examined line-by-line to identify processes in the data (Denzin & Lincoln, 2000). Participants, observations, memos, journals and work samples were coded for identification.

PARTICIPANT CODES

IT - in-role teacher

OT - out-of-role teacher

SI - student in-role

SO- student out-of-role

SYMBOLISM CODES

A/L - Ambiguous/Literal - Literal in meaning and are often used by participants. E.g. flower= friendship; heart= love.

PI - Pure imagery - This is a more sophisticated image and requires thought and reasoning. E.g. Bob's paths of life.

INTERVIEW CODES

A - Affective

PS- Problem-solving

EA - Emotional awareness (Other or incidental findings)

AL - Alien landing

S - Symbolism

GS - Group symbolism

SR - Student reflections

TT - In-role drama teaching techniques

M - Memos

Categories established from the codes included alien landing, symbolism, group symbolism, student reflections, in-role drama teaching techniques and memos. These categories were used as a starting point to collect evidence of specific cognitive processes. Other codes for incidental findings that related to emotional awareness came from the study interview codes that were compared with the observational data to organise both into clusters or specific drama-related categories.

Alien landing was the metaphor that acted as a trigger for the in-role drama. Symbolism related specifically to session two when the children created symbols. The category of group symbolism identified interactions between the children in session three. Student reflections targeted the discussion sessions that involved problem-solving as the data was gathered from the journals, observations and memos. The category of in-role drama teaching techniques

explored the connection between in-role drama and problem-solving in each session. Memos confirmed the trustworthiness of each category to show evidence of problem-solving through the observations of the in-role drama teacher

The following transcript of Interview One showed the stages of categorising the data. Greg identified his fear of aliens and this was categorised in Alien Landing as Anxiety (SI) (SO) under the Affective (A) heading:

Interviewer: You'd hide. Why would you hide?
Greg: They might be <u>waiting outside for me</u>....They might <u>get me</u> · get me. They <u>could be bad.</u> (FEAR/ANXIETY)
Interviewer: So there is a fear element there, you're a bit frightened about what to expect?
Greg: Yep.

4.9 Presentation of Findings

The tables below show the types of symbols used during the emoting-to-music session in lesson two. The images created by the children were either pure or ambiguous in nature according to the researcher. Courtney (1990) believed that the pure imagery was representative of higher cognitive levels. The data categorised as Ambiguous/Literal (A/L) or Pure Imagery (PI) determined the originality of the symbolism. The student's drawings, brainstorming sessions, interviews and journals were analysed for evidence of the development of problem-solving skills and affective awareness. This was then defined as either pure or ambiguous after referring to literature on symbolic definitions (Courtney, 1990; Fontana, 1993). Ambiguous or literal images or emotions are recognisable, similar and safe to a child. Pure imagery occurs when children create new meanings or reveal undiscovered emotions (Courtney, 1990, p. 75).

Symbols Represented by Group

SYMBOL	DEFINITION	A/L	PI
TOTALS()		x(%)	v (%)

A/L - Ambiguous/Literal
PI - Pure imagery
x= number of A/L symbols
y = number of Pl symbols
% = percentage of symbols

The research findings were analysed in the specific categories of Symbolism (S), Group Symbolism (GS), In-role drama Teaching Techniques (TT) and Memos (M). Alien Landing (AL) was looked at as the starting point for Group Symbolism. This made it simpler to classify the areas into specific codes for problem-solving. For instance:

<div style="border:1px solid">

Alien Landing (AL)

AFFECTIVE (A)	PROBLEMSOLVING (PS)	OTHER(EC)
Empathy (SI, IT)	Note-taking (SO)	Good V. Evil (SI, SO)
Anxiety (SI, SO)	Originality (SI, SO)	
Expectation (SO)	Imagination (SI)	
Communication (SI, SO)	Intuitive (SI, SO)	
Visualisation (SI, SO)		
Sharing (SI, SO)		
Shyness (SO)		
Reluctance (SO)		

</div>

Alien landing: An in-role drama technique and its relation to the problem-solving and affective processes of the children.

The memos were separated from the data after convergence to determine the trustworthiness of the findings. This was an appropriate technique because it enabled the data to be analysed, while highlighting relevant points. It provided a clearer perspective for information pertaining to in-role drama and problem-solving (Mathison, 1988).

The framework outlined the links between problem-solving and in-role drama to emphasise the effect of the technique. For example: Group Symbolism (category), GS (code) showed evidence of fluency which was linked to Problem-Solving (PS).

Group Symbolism (GS)		
AFFECTIVE(A) eg Avoidance(SI, SO)	PROBLEM-SOLVING(PS) Sharing (SI, SO)	OTHER(EC) Professionalism

Group Symbolism and its relation to problem-solving in the in-role drama environment.

These codes provided an identification of the processes involved in in-role drama as a stimulus for cognition. By placing these diagrammatically the researcher was able to sort through the data and place them into separate categories.

Chapter Five

RESULTS

5.1 Introduction

In this chapter the results of the study data were presented and analysed using a case study approach. The data included anecdotal records, notes taken from brainstorm sessions (town meetings), memos, student and teacher journals and interview transcripts. Symbols taken from drawings in the emoting-to-music session, brainstorming, interviews and journals were presented and defined. Interview codes were compared with observational data and organised into clusters or specific drama-related categories. These categories included alien landing, symbolism, group symbolism, student reflections, teaching strategies and memos. The chapter concludes with a summary of conclusions based on the analysis.

In the first session the teacher in-role informed the children that an alien spacecraft had landed in their town. The teacher in-role as the Mayor, gathered council members to the Town Hall and discussed the matter. The second session concerned the teacher in-role as the Mayor, reading out a letter from the aliens to the council members:

> We come in peace from a galaxy 750, 000 light years away. We have come here to learn more about your people - your way of life, feelings, technology, customs and natural resources. We hope we may take back with us a symbol of your world, something that represents why you live the way you do. My people, the Ezonarians use a form of dance to symbolise our love for nature and our planet Ezonar. We hope to share with you this dance when we arrive. We hope to see you soon.
> Gandar (Chief Elder).

The teacher then introduced a painting to the children (See Appendix one), played music and encouraged the children to draw a variety of symbols to represent their imaginary town. The children created a fluid sculpture using these symbols, before they reflected and discussed the lesson. Session three focussed on group skills and involved games, discussions and journal reflections about the dilemma that faced the towns' people. Session four involved developing the fluid sculpture. In session five the children made final preparations for the alien landing and organised the meeting place. The teacher in-role as the alien performed the alien ritual dance and in response the children performed the fluid sculpture.

Data was gathered from the five 45 minute sessions and collected in the form of: audio-taped interviews; work samples - letters, symbols, drawings and a suggestion box; journals and memos- observational notes and ideas and literature related to the data collated from the drama sessions. This data was recorded onto checklists and coded for analysis. The data was placed in categories to study the development of the children's problem solving skills. The case study approach was used with an emphasis on 'symbolic interactionism'. A socio-cognitive framework was developed to show the development of the children's problem-solving skills and the emergence of their symbolic language.

5.2 DATA

Anecdotal Records of Teacher/Researcher

The children chose fictitious names during the drama encounter. These names were referred to throughout the drama experience.

Susan - The most outspoken member of the group and sometimes reluctant to listen to other opinions. She tended to talk over the top of the other students at times. Susan enjoyed the sessions and used humour to create her character and in her interactions with others.

Jane - Jane appeared to be shy and was initially unresponsive during discussion time. She would often refer to Susan and Michaela for suggestions and ideas. Later on she began to open-up and offer suggestions.

Bob - Enjoyed the discussion time, but was reluctant to share his responses with the girls. In the researcher's opinion his co-operation and sharing skills needed some attention.

Greg - Seemed shy and apprehensive about offering his opinion. He revealed that he had not participated in drama nor in such intensive group situations before and this made him uneasy about what to expect in the sessions.

Michaela - Michaela appeared shy and reticent to respond to any questioning. She felt unwilling to work with the boys and tended to sit near the other girls during discussion.

5.2.1 Session One: Alien Landing

The children discussed their town, who they were, how they felt about the aliens and what their response would be. The meeting took on a fifty's flavour as the children had previously researched the 1950s before the drama sessions. The children assumed accents (mainly American and Scottish).

Brainstorm Ideas
COUNCIL MEMBERS:
Policewoman Sergeant Michaela
Doctor Jane McCarthy
Sheriff Bob

Greg Washington (Radio Announcer)

Susan Baker (General Store)

TOWN MEETING

Brookstown

Observatory

rural, 1957, Pop. 78, old fashioned telephones, radio, slow-moving, happy, close

Memo

Two examples of decisions made by the children:

1. It was important to find out if the aliens were friendly, otherwise they felt it would be necessary to take military action.

2. Decided against telling the rest of the townspeople, because this may have caused mass hysteria.

The children were reluctant and anxious initially. The teacher/researcher had to develop their abilities slowly so that the children felt they were in control of the decision-making. This was the beginning stage of sharing their emotions and ideas.

Adjusting to change was a factor that concerned them and they were unsure about how to continue. They did not understand why they had to work together and asked if they could work separately in two groups. A division of gender was evident, but the researcher knew that they had to overcome this to continue with the drama. The children at first were openly insulting each other. The researcher had to stop proceedings at one stage and discuss the importance of co-operation and acceptance. The children agreed they would work together and found it easier to do so in character.

Complacency was an issue also and they needed motivation through a structured brainstorming and games session. The children felt comfortable in their separate groups and did not want to share ideas with each other. The nature of the task required them to make decisions that were not de-valued by the other participants. Each child needed to fully understand what was expected of them in the drama. Susan was the most aggressive and sarcastic and was not afraid to say what she thought.

Susan was the leader of the girls as both followed and agreed with what she said. She wanted to be in charge of the situation without compromising and working with the boys. The teacher-in-role had to re-enforce the rules to Susan so that she would be more accepting of the others, especially the boys. Neelands (1984) 'Learning Contract' was used to negotiate and set guidelines between the teacher and student in the in-role drama process. This helped the participants to solve problems as they arose without affecting their roles in the drama. It encouraged the children to value the importance of everyone's decisions while reflecting on the drama. This allowed the teacher to step in and out-of-role without difficulty as the discussion became more purposeful and led to greater communication.

The children's problem-solving skills and group work in class were limited when they began. Prior knowledge showed they had not experienced the group skills needed to acquire effective problem-solving skills. After the first session the researcher could see that the children improved and co-operated with one another. For example in Interview Two when discussing symbols Susan began to co-operate with the other students:

Interviewer: Michaela. How do you think we could make them understand these symbols?

Michaela:	Something like Jane said. They have a translator or something to translate all our symbols. (Michaela needs to find a sense of ownership to her answers).
Interviewer:	Good. Susan.
Susan:	What we could do is put the symbol there (Referring to the centre of a piece of paper) like, [put] a colon and me and then fax it. They might have a fax there.

Once they felt confident they began to take risks and used their curiosity to develop new ideas. The drama process was new and exciting to them, giving the children a new approach to learning. The group work helped the children to find other alternatives and challenge their perception of the world. It provided the children with a structure from which they could process their ideas and start to experiment with play. This was the first step towards co-operation.

During Interview One Greg was reticent to communicate and needed encouragement. He feared finding out about the aliens. The teacher/researcher asked him leading questions by using a response from Bob that referred to morse code. Then Greg began to talk about his fear and how he would hide from the aliens:

Interviewer:	How would you communicate, do you think?
Greg:	Uh, I don't know?
Interviewer:	Just one idea? (Follow-up). What would you say to a person when you first meet? (Leading).
Bob:	Morse code, or something... (Trying to help Greg).
Greg:	I don't know. (Reluctant to answer).
Interviewer:	Morse code (Leading with Bob's answer to encourage Greg to respond), if you are aware of the signals you use for that. Greg.
Greg:	Um, Hide. (Starts to open up).
Interviewer:	You'd hide. Why would you hide?
Greg:	They might be waiting outside for me....They might get me-get me. They could be bad.

Interviewer: So there is a fear element there, you're a bit frightened about
            what to expect?

Greg: Yep.

In the Town Meeting the children empathised with their characters and displayed some interesting emotions. Their ideas were original and imaginative and showed evidence of understanding their feelings. They shared their ideas and created a world that was open to possibilities.

Interviewer: What I'm trying to ask, I know you're going to communicate or
            flee, but how would you communicate with them, if you met
            them?

Susan: Take notes or surrender, I don't know.

Interviewer: It's a possibility, you could take notes. What type of notes?

Bob: You'd need an alien translator.

Interviewer: If we had an alien translator around...

Bob: They might have one, or the military have one. Like the military
            in Area 51.

This discussion gave the children an outlet to express their ideas openly as their characters. I felt this encouraged the children to open-up because they could reflect the character's moods and reactions to the situation. They could feel excited and sad knowing the other characters would be feeling the same way. This gave them the confidence to explore different ways to communicate.

Town Meeting

The children walked into the classroom and waited for the teacher to start the proceedings. They were briefed on the situation and told to imagine they were in a hall attending a town meeting. They were not told about the aliens or about the town itself to allow them to develop these themes as they went along. The teacher in-role as the mayor entered looking flustered and upset and began the meeting with,

"I have some frightening news, a UFO has been spotted by the observatory."

The townspeople react "Oh no!"

"What are we going to do?"

"Should we bring in the military?"

"I didn't want to say anything, but last night I saw something in the sky. It was all glowing and it landed in my field. I was too scared to go look, but before I knew it flew off and vanished."

"I saw bright lights in the sky too. And I have overheard people on the street discussing they've seen flying objects just moving in the sky."

"This is awful what are we going to do?"

"First we have to stay calm. We don't know anything about them. What we have to do is discuss the affect it is going to have on our town," stated the mayor.

Journal - In-Role Teacher

There was a high level of participation in the first town meeting. The children became immersed in their characters and the dilemma facing them. They talked avidly about the town and their fears about the aliens. The teacher/researcher was conscious of the need not to give too much information away in the first session.

Interview Transcript One

Question One:	" What would you do if an alien landed?"
Jane:	I'd be really scared.
Interviewer:	Why would you be scared? (follow-up).
Jane:	Um, because it's an alien, don't know anything about them. (Expand on in lesson).
Interviewer:	That's a good response... Yes, Bob... (Hand in air).
Bob:	Try, try and communicate, if you knew how to.

Interviewer:	How would you communicate, do you think?
Greg:	Uh, I don't know?
Interviewer:	Just one idea? (Follow-up). What would you say to a person when you first meet? (Leading).
Bob:	Morse code, or something... (Trying to help Greg).
Greg:	I don't know. (Reluctant to answer).
Interviewer:	Morse code (Leading with Bob's answer to encourage Greg to respond), if you are aware of the signals you use for that. Greg.
Greg:	Um, Hide. (Starts to open up).
Interviewer:	You'd hide. Why would you hide?
Greg:	They might be waiting outside for me....They might get me-get me. They could be bad.
Interviewer:	So there is a fear element there, you're a bit frightened about what to expect?
Greg:	Yep.
Interviewer:	Michaela.
Michaela:	Well, it depends if you knew they were good aliens or bad aliens.
Interviewer:	How did you think you would figure that out?
Michaela:	I don't know...
Interviewer:	Say if an alien came up to you, how could you tell if they were friendly?
Michaela:	...And, um, I don't know. (Very shy).
Interviewer:	I'll get back to you... Susan.
Susan:	Well, what I'd do if they were good - communicate, bad - flee.
Interviewer:	What I'm trying to ask, I know you're going to communicate or flee, but how-would-you communicate with them, if you met them?
Susan:	Take notes or surrender, I don't know.
Interviewer:	It's a possibility, you could take notes. What type of notes?
Bob:	You'd need an alien translator.
Interviewer:	If we had an alien translator around...
Bob:	They might have one, or the military have one. Like the military in Area 51.

Question Two:	"How do you think an alien would move?"
Bob:	Blob, blob, blob. Just big, fat and just roll over, and their eyes just go back until they get into the right position.
Interviewer:	Could be. Michaela.
Michaela:	I reckon they'd like slide.
Interviewer:	Mm hmm. Jane.
Jane:	Umm, I'm not really sure.
Interviewer:	I'll get back to you on that. Greg.
Greg:	Sort of with legs wide open, wobbling awkwardly, sort of like a penguin.
Interviewer:	Good. Susan.
Susan:	Well I could say human form, you never know, but they could walk anyway, anyway like us. Well if they didn't, I don't know really I've never seen one.
Interviewer:	But you could imagine what it would be like?
Susan:	I try not to. (Laughter). They'd slide.
Interviewer:	That's a good idea. Michaela what do you think?
Michaela:	Ummm, they'd slide. (Michaela's original response).
Interviewer:	Jane
Jane:	I think they'd slide. Yeah. (Feels a need to share in Susan and Michaela's response).
Interviewer:	It would be interesting to find out. Of course we don't know any aliens, but we can use our imagination.

END INTERVIEW ONE

5.2.2 Session Two: Symbolism

Brainstorm ideas

The brainstorm ideas were placed on the board as possible gifts for the aliens. The symbol ideas were: Global world; Dance; Write a note; Act-out how we live, and; a Gift basket (foods of the world).

Memo

The children discussed the different types of symbols that they would use to represent humanity. Yin & Yang was the most commonly suggested symbol in

the drawings, followed by the peace sign. The children wanted to act-out these symbols or perform a dance to demonstrate them. In the interview they also talked about writing a letter and this was incorporated into the journal writing in Lesson Three.

The fluid sculpture used movement to convey an image or an emotion. Initially the children had trouble concentrating and standing still. The final movement showed more control and conveyed the symbol of peace. The children positioned each other in submissive and dominant positions. Some students used desks to position themselves at a higher level and stretched out their arms, while other students knelt or crouched down.

Town Meeting

The teacher in-role as the mayor walked in and read a letter from the aliens that had been received by the observatory. The children listened to the letter and sighed in relief when they discovered that the aliens intentions were peaceful. The children discussed ways in which they could symbolise their town.

Greg: "We could give them a gift basket with all the foods of the world in it."
Bob: "We could write a letter."

Journal - In-Role Teacher

The improvisational activities were challenging for all of us. The children's limited abilities made it hard for them to get along. The in-role teacher needed to gauge when to step out and when to guide the children through the difficult moments. In follow the leader the teacher in-role started to move like an alien using sharp, large gestures in time to the music. The children followed the movement and seemed to enjoy the exercise, as they turned the children followed the next

leader's movements. The teacher/researcher believed that the presence of the teacher in-role gave them confidence.

The group dynamics of sharing and listening were emphasised and the children realised that they needed to co-operate to develop their play.

Interview Transcript Two

Question One:	"What symbols did we use to represent the town and why?" Susan.
Susan:	We used mainly yin g-yangs [sic], peace sign, smiley faces, confusion...
Interviewer:	Jane, what about you?
Jane:	Flowers for friendship.
Interviewer:	Good. Michaela.
Michaela:	Hearts for love.
Interviewer:	Good. Yes.
Bob:	The paths of life.
Interviewer:	The paths of life. And what were the lines you were using...
Bob:	Those are the paths of life, they cleanse, they solve problems, they confuse...
Interviewer:	Good. Anything else.
Greg:	Water, I have a mountain with water coming down.
Interviewer:	Do you know what that means Greg?
Greg:	That's drinking water from the mountains.
Question Two:	Do you think the aliens would understand what we have done, and why? Bob.
Bob:	Yes. Um, because they sent us the letter.
Interviewer:	Good. Jane. (Pause). In what way could we show them the symbols?
Jane:	Well, they have a translator to help them change and write their letter. We could write, we could draw the symbols and write a letter to them and then take it to the alien ship.
Interviewer:	Good.
Greg:	We could get little bits of everything and spread them out and sort of put them next to each other.

Interviewer:	It sounds good. Bob.
Bob:	Umm, they de-code it in a formula, and lets pretend they sent this to us, and put it back in the original formula so we de-code it.
Interviewer:	Michaela. How do you think we could make them understand these symbols?
Michaela:	Something like Jane said. They have a translator or something to translate all our symbols. (Michaela needs to find a sense of ownership to her answers).
Interviewer:	Good. Susan.
Susan:	What we could do is put the symbol there (Referring to the centre of a piece of paper) like, [put] a colon and me and then fax it. They might have a fax there.

<div align="center">*END INTERVIEW TWO*</div>

5.2.3 Session Three: Theatre Games and Decision-Making

Memo

Theatre Sports

1. Taking the part of aliens in a spacecraft to focus on character development.

2. Townspeople in different situations within their imaginary town. e.g. At the hairdressers. Every time the teacher said, "space jump" the children froze and then created a different scene.

The children thought and reacted quickly. They used accents and movements to enhance the development of their characters. The activities were fast paced with each child participating well. The hairdresser's scene was very funny. e.g. Greg pretended to cut the hair of one of the participants and then reacted with dismay after pretending to make a terrible mistake.

Student Journals

Letter to Aliens:

e.g. Jane

LETTER TO THE ALIENS

WE HAVE READ YOUR LETTER AND WE ARE GOING TO MAKE SIMBELS [sic] FOR LOVE FOR HAPPINESS FOR FRIENDSHIP FOR PEACE AND FOR CONFUSTION [sic]. WE HAVE MADE A PLACE TO MEET AT THE OLD QUARRY

FROM THE TOWNSPEOPLE.

Michaela

Dear Aliens
We are sorry you haven't heard from us but we have not been able to get through. When you land you will land in the old quarry. We will be using lots of symbols like ♥ which means love, ☺ which means happiness ☻which means friendship, ☯ and ☮ which both mean peace. This is our way of saying thankyou for showing us your dance.
Yours
sincerly [sic]
Sargeant Michaela, [sic]
and the townspeople

Overview of the Journals:

Michaela

On the first day we introduced ourselves and made up character names. We

also decided what our story was going to be about. The second day we started

playing in-role. The third day we were taught how to do a fluid sculpture

Greg

In Drama we have been Acting out a town who have an encounter with Aliens. The Aliens are friendly so they [we] don't have to be very conserned [sic]. We also played a cople [sic] of games. And a fluid sculpture.

Susan

Well we have been doing a town meating [sic], occasionally [sic] going out of character we also played a game whitch [sic] was where you start a sciene [sic] and somebody says switch and someone comes in and starts a diffrient [sic] sciene [sic] and we also did a fluid sculpture that was fun it was rely [sic] hard no [sic] to lauph [sic] and now we are writing a jurnal [sic].

Bob
So far through all the lessons we have learnt:
Fluid Sculptures
How to be serious
How to adjust personalities
Theatre Games
I loved Fluid Sculptures because it helps you learn how to avoid corpsing (giggling uncontrollably) during drama.
Out of all of the list I enjoyed the Theatre games.
The story so far is set in "Brookstown" nnd there has been alot [sic] of alien sightings around there. The story so far also has the towns most important people:
Sherrif Bob
Dr Jane McCarthy
DJ Greg
Susan Baker
Sargeant Michaela [sic]
Are called into a town meeting and decide to send a letter.......

Jane

WHAT WE HAVE DONE SO FAR?

At the beginning we had a topic to work on and that was aliens it was about townspeople and a alien spaceship has written us a letter. etc. etc. etc. |sic| The other things we have done are some thearter [sic] games and fluid sculpture with a mask, neclace [sic] and a peace [sic] of pink sheet.

Journal - In-Role Teacher

The emoting-to-music session (or drawing to music) was productive and the children produced a variety of images. Ambient and fifties music was used to tie in with the theme the children had chosen for themselves. The session focussed on the images created and the symbols produced. The resultant symbols were discussed in detail so that the researcher could clarify exactly what the children wished to convey with these images. The teacher/researcher made sure the children did not feel that this was a competition for best artist.

The children discussed the themes they could explore in the improvisations and tried them out after each discussion. They decided to place the symbols in the suggestion box select one and then act-out a scene to depict the symbol. They believed this method of selection to be more equitable and prevented favouritism.

The children found that the letter writing exercise clarified their understanding of the importance of symbols in society.

Interview Transcript Three

Question Three: How could we have improved what we have
                          done? Jane.

Jane:	Umm, we could change the page and make it bigger. And, umm, more colours. And, umm, colour in the flowers.
Interviewer:	Michaela.
Michaela:	I don't really know.
Interviewer:	I'll get back to you. Susan.
Susan:	I wouldn't change anything.
Interviewer:	How could we improve what we have done so far? Greg.
Greg:	I thought we could take little samples of everything and put them next to it and label them.
Interviewer:	Sounds good. Bob.
Bob:	Get a dictionary of everything in the world. We could actually give them a dictionary, couldn't we?
Interviewer:	Susan. (Wants to respond to Bob's idea).
Susan:	But they would have to translate all our language into their language.
Bob:	No, if we sent it to them we could change it all first. (Starting to build on one another's knowledge - example of scaffolding).
Greg:	We could ask how they did it.
Interviewer:	Let's answer that one. How could we find out how they would use the information? Jane.
Jane:	We could send them another letter asking them, and then if they told us we could, if we had all that equipment we could build it.
Interviewer:	Michaela.
Michaela:	I was just about to say what Jane said.
Interviewer:	Susan.
Susan:	The same.
Interviewer:	I'll get back to you on that one. Bob.
Bob:	(Silent).
Interviewer:	So your all agreeing on a letter situation to find the information.
All:	Yes. It's excellent.
Interviewer:	What else. Greg.

Greg:	We can pick up on some segment and experiment...
Bob:	Maybe they'd pick it up and think that we don't like them. Maybe we should ask them how we should analyse it because we might do something bad, they might take offence.
Interviewer:	Mmm, hmm. Jane.
Jane:	Have we actually worked out, back to them, about the letter that they sent.
Interviewer:	No I don't think we have yet.
Jane:	Umm, because if we said we wanted just to be friendly, then they might be able to tell us how they change their language.

END INTERVIEW THREE

5.2.4 Session Four: Discussion and Rehearsal of Ideas

Memo

The ideas for the fluid sculpture came after the brainstorming sessions. The in-role teacher was a guide in the first lesson on developing this skill. The children developed these ideas after that session. The children used the ideas in the suggestion box to create a fluid sculpture. The ideas created in the drama experience by the children as they discussed each image during and after each performance. They experimented with different emotions and with the issues of love, war, confusion and peace to create the ritual dance for the aliens. The children viewed this exercise as part of the dramatic metaphor by empathising with the townspeople and they felt that sharing these images would give the aliens a greater understanding of the people in that town.

The children after discussing the period of the town chose authentic fifties' costumes in line with the time they had chosen. The children had researched the fifties, with their classroom teacher, before they started the drama sessions. They were interested in using their knowledge in the drama experience.

Journal - In-Role Teacher

The children tackled the images of love and peace during the rehearsal. The idea of love for family was important to all of the participants. They used gestures and positioning to depict the structure of family and of the need to feel loved. They said that this made them feel safe.

They then attempted to develop the piece by making the imagery more complex. They intertwined images to convey the ideas of peace and confusion. They believed that this worked to show that the world was not always a safe place to be. They also wanted to show the aliens that humans aren't perfect, that they make mistakes and lose their way at times.

5.2.5 Session Five: Reflections

Memo

This exercise was performed with commitment and showed an overall understanding of the objectives of the sessions. The children used sharp and aggressive movements to depict the devastation of war and violence. The sculpture then flowed into the image of confusion. They moved around awkwardly without having any real direction. In the final movement to show peace, the children stretched out their hands in a gesture welcoming the alien to the planet.

Journal- In-Role Teacher

The ideas and experimentation developed over the five sessions culminated in a vivid and strong performance with a powerful use of imagery. The children responded imaginatively to the alien dance performed by the teacher in-role. That is, in character as the townspeople. They were a little frightened at first on the alien's arrival in their town and some were even suspicious of its true intentions.

Interview Transcripts Four & Five

Question one:	"What have you experienced in the lessons so far?"
Bob:	Tried our best not to corpse, it works quite well but you still corpse a bit.
Greg:	It could be scary.
Interviewer:	In what way?
Greg:	I don't know, didn't know what to expect.
Interviewer:	Okay. What else have we learnt so far?
Jane:	About the aliens.
Interviewer:	What about it Jane?
Jane:	Um, the, they gave us presents. It was very informative.
Interviewer:	What about you Michaela. What have you learnt so far?
Michaela:	All the things that other people have said. (Very reluctant to have own say).
Interviewer:	Anything else that has stood out in your mind over these past few lessons? Susan.
Susan:	Ahh, I've forgotten how to say it. Like, you know, when you go. (Demonstrates a frozen statue).
Interviewer:	Are you talking about fluid sculptures?
Susan:	Yeah.
Interviewer:	What about it?
Susan:	With fluid sculptures you're trying to stay still, but you might be on one foot, and if you fall over you can wreck the whole thing.
Interviewer:	You have to really think about what you're doing.
Susan & Jane:	Yeah.
Jane:	And watch your balance.
Bob:	Especially if you're in a performance, not to corpse.
Question Two:	What group skills have you learnt? Do you think you could improve anything we have done? Why?
Susan:	Corpsing we can improve that. I laugh a lot. It's sort of hard to work with boys, I don't know why, but it is.
Michaela:	It's much easier to work with people you like.
Susan:	It's much easier to work with people you like, because you understand them.

Interviewer:	What could you do in the future, which would help you work as one, big group? Bob.
Bob:	Avoiding people, if you're a girl avoid boys.....
Girls:	No.
Interviewer:	That's something you cannot avoid. There are ways you can work around doing that.
Susan:	Try and make it look like you're not trying to avoid them.
Jane:	Yeah, but you still have to get into a position where you still have to work because if you're going to work with people you don't like..
Greg:	Be tolerant, be tolerant....
Interviewer:	In what way Bob? How can we be tolerant?
Bob:	Um, just ignore them.
Greg:	No.
Interviewer:	But if you're working in a group, and acting out a scene you need each other. You can't really ignore that particular person.
Michaela:	I was thinking if you were to work with boys, you just pretend that it's just another girl.
Greg:	Is that the same for the boys?
Michaela:	Yeah. Exactly the same for the boys.
Susan:	Just pretend it's one of your best friends.
Interviewer:	Greg.
Greg:	It would have been better if we had done it before because we would know what to expect.
Interviewer:	Done what exactly before?
Susan:	Maybe if we had had a long time, then we would have gotten used to it. We have only had 4 or 5 [lessons] haven't we. We needed time to adjust. (After this statement I was wondering how much group work they have had).
Interviewer:	It's hard when you adjust to certain people when you have to work together. Sometimes you have to, when you have a two weeks rehearsal, and it just takes a lot of hard work.
Interviewer:	Yes, Greg.
Greg:	Sort of acting out, scripted.
Susan:	It's given us the ability to do drama.

END INTERVIEW FIVE

5.3 DATA ANALYSIS

Table 5.1: Symbols identified as Ambiguous/Literal or Pure Imagery

SYMBOL	DEFINITION	A/L	PI
1. Love-♥	The heart is the emotion of love	25	
2. Yin/Yang-☯	Man and woman		18
3. Flower-O	Friendship	6	
4. Peace-☮	Peace		23
5. Confusion-?	Lack of understanding		16
6. Happiness-☺	Smiling face	17	
7. Alien-ß	Friendly or menacing		2
8. Star-✧	Outerspace		18
9. Spiral-§	Space, or a type of direction		1
10. Cross-X	Failure	1	
11. Crescent Moon-)	Space or spiritual inclinations		2
12. Exclamation Mark- !	Surprise or expression of interest	12	
13. The Paths of Life-——	(Red) Confusion, (Grey) Solve problems, (Orange) Cleansing		3
14. Mountain-∆	Mountain covered in snow-an obstacle or risk	2	
15. Wave-~	Calming and peaceful		1
16. Hamburgers. OO	A distraction	2	
17. Tree- ¥	New life		1
18. A Cluster of Stars- •••	Image of space		8
19. Fish-><	Christian symbol	1	
20. House-∏	Family, stability and safety	1	
21. The World - O	All cultures and customs	2	
22. Flying Saucer->-	Beyond what we know		2
TOTALS (155)		59 (38.1%)	96 (62%)

A/L = Ambiguous and literal in meaning PI= A pure image/ metaphoric in meaning

5.3.1 Symbols Produced in the Emoting-to-Music Session, Brainstorming, Interviews and Reflection Journals

The data in Table 5.1 was retrieved from drawings created during the emoting-to-music session, brainstorming sessions, interviews and reflection journals. These symbols were then defined as either pure or ambiguous in nature after referring to the latest literature on symbolic definitions (Courtney, 1990; Fontana, 1993). To re-iterate, the ambiguous or literal concerned an image or emotion that was recognisable, similar and safe to the child, whereas in metonymy or pure imagery the children created new meanings or revealed undiecovered emotions (Courtney, 1990, p. 75). The group created a wiide range of pure images, denoting an understanding of the world around them. They discussed what these images represented to them with fluency and complexity. The more emotional the response the higher the image would be situated on the hierarchical structure of emotions (Courtney, 1990) (See 2.3.1). The researcher has attempted to create definitions of the following symbols by noting both the literature definitions and the definitions created by the children.

Ambiguous/Literal Imagery

The Heart ♥ - This was an ambiguous and literal symbol because it was part of the hierarchical structure of emotions known as a basic core emotion (Dunlop, 1984; Courtney, 1990). Fontana (1993) stated that, "The heart is the basic symbol for sincerity, love and compassion, and also represents the centre of things" (p. 128).

In the emoting-to-music session Susan drew a heart to represent love and her family. Susan described a love for all things as being one of humanities best assets and something the aliens would identify with. Family was very important to her and made her feel safe. In Session Two in her journal she notes that it is important to, "... Love your family, care for your family."

The children showed a respect for their family and placed love above all other emotions. Table 5.1 shows that love was the most widely represented emotion and evident 25 times in the data.

Happy Faces ☺ - A happy face was used to express the joy of life. It was an important way for the children to express their happiness and their understanding of human nature. A smile showed how human beings interacted with one another in a positive light. The emotion of joy was expressed in the data mainly by the girls. Susan believed that the aliens needed to see a positive side of the world.

Exclamation marks !- In one of Bob's drawing he scattered exclamation marks around the page in black and red to depict surprise and to represent how the townspeople felt about contact with aliens. Bob also expressed surprise at his own reactions to the situation, especially his inability to trust the aliens. He also felt they were, "... too nice" and that there may be something behind their friendly image.

A Cross (X) - This was depicted in red to represent failure or a mistake. Bob used this symbol to show that he was afraid of taking the wrong path and of failure itself. If the town made a wrong decision concerning the aliens he felt that the aliens would start a war.

The World O - The world symbol was used to represent all cultures and customs.

Pure Imagery

Yin/Yang ☯ - One of the most popular symbols used was the Yin/Yang. The children believed it represented the world and everything that existed in it and also that the way we treated each other affected how we co-operated with and tolerated one another.

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This image, a part of Chinese Taoist philosophy, represented anima/animus or a balanced man and woman. It showed that we all share masculine and feminine characteristics. This symbol also represented a form of communication. The way we listened and talk to each other affected our social interactions. We needed to find a balance between these forms of communication to attain greater knowledge, for:

> In ancient Chinese thought, the terms yin and yang referred to polar categories, which though very different, were interdependent and complementary facets of existence. Yin and yang are necessary to each other. The goal of the yin-yang philosophers was the attainment of perfect balance between the two principles (Bolton, 1986, p. 118).

Alien ß - An alien and stars were drawn to represent space. The influence of television on the children's perception of the world was quite evident in Susan's drawing. Susan became so involved in her work that she produced two pages of symbols. A cartoon character, from "Loony Tunes", that was familiar to Susan was used to help her to interpret what an alien would look like. In initial discussions she was reluctant to discuss what an alien would look like and avoided answering questions in the interviews. When asked to describe the movement of an alien she replied, "I don't really know really I've never seen one." The researcher believed that the cartoon image was to her a safe image.

Peace Sign ☮ - A large peace sign was depicted at the centre of Bob's picture. He viewed the peace sign as, "... the world the way I would like it to be." In her letter to the aliens Michaela noted, "We will be using lots of symbols like ♥ which means love, ☺ which means happiness ○ which means friendship, ☯ and ◐ which both mean peace."

The Paths of Life ~~~ - In Bob's drawing what he referred to as 'the paths of life' flowed out from the peace sign symbol. The paths intertwined and spread out of the symbol. Bob used red lines to symbolise confusion, grey to solve

problems and orange to represent cleansing. The lines ran through the peace sign and were used to depict the world. He said that, "Those are the paths of life, they cleanse, they solve problems, they confuse." The path we take in life effects how we view the world and what we want to do with our lives.

Question Marks ? - The researcher believed this symbol may represent a sense of confusion about making decisions that affect our lives. Bob felt confused about how he felt about the world and his place in it.

A Star ☆ - The star represented outer space and unchartered worlds. The stars were placed in Bob's drawing around an image of the world and used to represent the alien planets.

Spiral § - This represented space or a type of direction. Bob placed this symbol inside the world or peace sign and linked it to the direction of the paths of life. The world was a source of energy and was connected to space.

Crescent Moon) - The crescent moon may have been used to depict a spiritual or spatial existence. The children associated the moon with the star symbols to show life beyond our own world. The alien landing stimulated the children to look beyond their own world and use their imagination.

5.3.2 Alien landing

The following diagrams outline the categories and codes that linked to problem-solving and emotional awareness. They show evidence of problem-solving during the in-role drama technique. The findings were converged and triangulated to check for trustworthiness and to validate the research questions.

Alien Landing (AL)

AFFECTIVE (A)	PROBLEM-SOLVING (PS)	OTHER (EA)
Empathy (SI, IT)	Note-taking (SO)	Good V. Evil (SI,SO)
Anxiety (SI, SO)	Originality (SI, SO)	
Expectation (SO)	Imagination (SI)	
Communication (SI, SO)	Intuitive (SI, SO)	
Visualisation (SI, SO)		
Sharing (SI, SO)		
Shyness (SO)		
Reluctance (SO)		

Figure 5.1:   Alien landing: An in-role drama technique and its relation to the problem-solving and affective processes of the children.

PARTICIPANT CODES
SI - student in-role
SO - student out-of-role
IT - in-role teacher
OT - out-of-role teacher
EC - emotional awareness

CODES/ CATEGORIES: *Link to problem-solving.

ALIEN LANDING (AL)
EMPATHY (SI) (IT)
ANXIETY (SI) (SO)
EXPECTATION (SO)
COMMUNICATION (SI) (SO)
GOOD V. EVIL (SI) (SO)
NOTE-TAKING* (SO)
VISUALISATION (SI) (SO)
IMAGINATION* (SI)
ORIGINALITY* (SI) (SO)

SHARING (SI) (SO)
INTUITIVE* (SI) (SO)
SHYNESS (SO)

(Taken from Interview One).

NOTE: The children's ideas were original and imaginative, displaying a strong intuitive ability. They lacked experience in group skills resulting in shyness and a wariness to working in groups.

5.3.3 Symbolism

Symbolism (SY)		
AFFECTIVE(A)	**PROBLEM-SOLVING(PS)**	**OTHER(EA)**
Friendship (SI)	Paths of Life (SI, SO)	
Peace (SI, SO)	Brainstorming ideas (SI, SO)	
Love (SI, SO)	Gift Basket (SI, SO)	
Confusion (SI)	World (SI, SO)	
Water (SI, SO)	Dance (SI)	
	Act-out (SI)	
	Translate Language	
	i) Write a letter/note	
	ii) Draw	
	iii) Design a chart	
	iv) De-code the formula (SO)	
	Organisation (SI, SO)	
	Demonstration (SI, SO)	

Figure 5.2:   Symbolism and its relation to problem-solving in the in-role drama environment.

PARTICIPANT CODES
SI - student in-role
SO - student out-of-role
IT - in-role teacher
OT - out-of-role teacher
EA - emotional awareness

CODES/ CATEGORIES: *Link to problem-solving.
SYMBOLISM (SY)
FRIENDSHIP (SI)
PEACE
LOVE

CONFUSION
PATHS OF LIFE* (SI) (SO)
WATER
BRAINSTORMING IDEAS* (SI) (SO)
GIFT BASKET*
WORLD* (SI) (SO)
DANCE* (SI)
ACT-OUT* (SI)
TRANSLATE LANGUAGE*
i) WRITE A LETTER/NOTE*
ii) DRAW*
iii) DESIGN A CHART*
iv) DE-CODE THE FORMULA* (SO)
ORGANISATION* (SI) (SO)
DEMONSTRATION* (SI) (SO)

(Taken from Interview Two, Memos and Journals).

NOTE: These ideas showed the participants were organised as a group and that their ideas for their first contact with the aliens were imaginative. They made a unanimous decision to write a letter and to prepare a dance for the aliens. They were intrigued by the problem posed in translating the letter in such a way that it could be fully understood by the aliens.

5.3.4 Group Symbolism

Group Symbolism (GS)		
AFFECTIVE(A)	**PROBLEM-SOLVING(PS)**	**OTHER(EA)**
Avoidance (SI, SO)	Sharing (SI, SO)	Commitment
Imagination (SI, SO)	Fluency (SI, SO)	Complacency (SI,SO)
Expeciations (SO)	Co-operating (SI, SO)	
Adjusting (SO)	Making Value Judgements (SI, SO)	
Confidence (SI, SO)	Flexibility (SI, SO)	
Taking Risks (SI, SO)	Elaboration (SI, SO)	
Curiosity (SI, SO)	Solutions (SI, SO)	
Complexity (SI, SO)	Resolution (SO)	
Achievement (SI, SO)	Revelation (SO)	
Listening To Ideas (SO)	Formulating An Idea (SI, SO)	
	Compromise (SI, SO)	
	Acting-Out (SI)	
	Scaffolding (SO)	
	Decision-Making (SI, SO)	
	Originality (SO, SI)	

Figure 5.3: Group Symbolism and its relation to problem-solving in the in-role drama environment.

PARTICIPANT CODES
S I - student in-role
SO - student out-of-role
IT - in-role teacher
OT - out-of-role teacher
EA - emotional awareness

CODES/ CATEGORIES: *Link to problem-solving.
GROUP SYMBOLISM (GS)
CO-OPERATING* (SI) (SO)
SHARING* (SI) (SO)
COMPROMISE* (SI) (SO)
RESOLUTION* (SO)
MAKING-VALUE JUDGEMENTS* (SI) (SO)
DECISION-MAKING* (SI) (SO)
SOLUTIONS* (SO)
FORMULATING AN IDEA* (SI) (SO)
CONFIDENCE (SI) (SO)
ADJUSTING (SO)
EXPECTATIONS (SO)
AVOIDANCE (SO)

LISTENING TO IDEAS (SO)
ACHIEVEMENT (SI)
ACTING OUT* (SI)
SCAFFOLDING* (SO)
COMPLACENCY (SO)
PROFESSIONALISM (SI)
REVELATION* (SO)
FLUENCY* (SO) (SI)
ORIGINALITY* (SO) (SI)
FLEXIBILITY* (SO) (SI)
ELABORATION* (SO) (SI)
TAKING RISKS (SO) (SI)
CURIOSITY (SO) (SI)
COMPLEXITY (SO) (SI)
IMAGINATION (SO) (SI)

(Taken from Observations, Memos, Interview Three, Four & Five).

NOTE: Group work helped the children develop and expand on the options available to them in attempting to solve the dilemma of the alien landing. It acted as the first step towards co-operation and personal development. Scaffolding took place and this displayed their understanding of the processes involved. A revelation or moment of truth was shown by Michaela in resolving the issue of working with another gender It was through this revelation that a difficult problem was resolved.

Interviewer:	But if you're working in a group, and acting out a scene you need each other. You can't really ignore that particular person.
Michaela:	I was thinking if you were to work with boys, you just pretend that it's just another girl.
Greg:	Is that the same for the boys?
Michaela:	Yeah. Exactly the same for the boys.

[Interview 5: Reflections]

At the beginning of the sessions she did not display the ability to take such an initiative. This indicated a possible improvement in her problem-solving skills.

The children began to make value judgements and formulated ideas, e.g. Greg: "Be tolerant ..." Some children wanted to avoid the situation entirely (Bob), some were complacent (Jane) and some were unsure of expectations (Susan & Greg) but the researcher felt that the moment where the children knew they had to resolve this dilemma before they could move on was important to the development of their problem-solving skills.

5.3.5 Student Reflections

Student Reflections (SR)		
AFFECTIVE (A)	**PROBLEM-SOLVING (PS)**	**OTHER(EA)**
Adjust Personalities (SI)	Letters (SI, SO)	Attitude (SI, SO)
Character Development (SI)	Games (SI, SO, IT)	
Serious/Corpsing (SI)	Fluid Sculpture (SI, SO, IT)	
Introductions (SI, SO, IT)	TownMeeting(SI, IT)	
Playing In-Role (SI, IT)	Preparing a Dance (SI, SO, IT, OT)	
Enjoyment (SI, IT)	Brainstorming (SI, IT)	
Believability (SI, IT)	Decision-Making (SI, SO)	
Commitment (SI, IT)	Concentration(SI, SO)	
Accents (SI)	Varied Responses (SI, SO)	
Sense of History (SI)	Experiimentation (SI, SO)	
Control (SI, IT)	Sharing Images (SI, SO)	
Status (SI, IT)	Discussion (SI, SO, TI, TO)	
Authenticity (SI)	Selecting Music/Costumes (SO)	
	Initiative (SI, SO)	
	Find Out (SI SO)	

Figure 5.4:   Student reflections on the effectiveness of the teacher in-role on problem-solving.

PARTICIPANT CODES
SI - student in-role
SO - student out-of-role
IT - in-role teacher
OT - out-of-role teacher
EA - emotional awareness

CODES/ CATEGORIES: *Link to problem-solving.

STUDENT REFLECTIONS: (SR)
LETTERS* (SI) (SO)
GAMES* (SI) (SO) (TT)
FLUID SCULPTURE* (SI) (SO) (TT)
ADJUST PERSONALITIES (SI)
SERIOUS/CORPSING (SI)
CHARACTER DEVELOPMENT (SI)
INTRODUCTIONS (SI) (SO) (TT)
PLAYING IN-ROLE (SI) (TT)
TOWN MEETING* (SI) (TT)
PREPARING A DANCE* (SI) (SO) (TT) (OT)
ENJOYMENT (SI) (TT)
BRAINSTORMING* (SI) (TT)
FIND-OUT* (SI) (SO)
DECISION-MAKING* (SI) (SO)
BELIEVABILITY (SI) (TT)
COMMITMENT (SI) (TT)
ACCENTS(SI)
SENSE OF HISTORY (SI)
VARIED RESPONSES* (SI) (SO)
CONCENTRATION* (SI) (SO)
CONTROL (SI) (TT)
STATUS (SI) (TT)
EXPERIMENTATION* (SI) (SO)
SHARING IMAGES* (SI) (SO)
ATTITUDE (SI) (SO)
AUTHENTICITY (SI)
DISCUSSION* (SI) (SO) (TT) (TO)
SELECTING MUSIC/COSTUMES* (SO)
INITIATIVE* (SI) (SO)

(Taken from Journals, Memos and Observations).

NOTE: The children listened and shared ideas. The control of the play was distinctly the children's territory as the in-role teacher went with the flow of the piece or stepped out and guided the children along. The teacher initiated the

scene but the children clearly identified the town, the year and how they would react to an alien invasion. The children's ability to take on board different drama terms and to use them correctly demonstrated initiative and memory retention. This showed a commitment and a sense of responsibility that comes with developing play.

5.3.6 In-role Drama Teaching Techniques

In-Role Drama Teaching Techniques (TT)

AFFECTIVE (A)	PROBLEM-SOLVING (PS)	OTHER (EA)
Participation/	Guide (IT, OT)	
Commitment (IT)	Town Meeting (IT)	
	Alien Letter(IT, OT)	
	Fluid Sculpture (IT, OT)	
	Theatre Games (IT)	
	Emoting To Music (IT, OT)	
	Student Reflections (SI, SO, IT, OT)	
	Alien Dance (IT)	

Figure 5.5:   In-role drama teaching techniques that effected the problem-solving abilities of the children.

PARTICIPANT CODES
S I - student in-role
SO - student out-of-role
IT - in-role teacher
OT - out-of-role teacher
EA - emotional awareness

CODES/CATEGORIES: *Link to problem-solving.

TEACHING TECHNIQUES: (TT)
GUIDE* (IT) (OT)
PARTICIPATION/COMMITMENT (IT)
TOWNMEETING* (IT)
ALIEN LETTER* (IT) (OT)
FLUIDSCULPTURE* (IT) (OT)
THEATRE GAMES* (IT)
EMOTING TO MUSIC* (IT) (OT)

ALIEN DANCE* (IT)

(Taken from Observations, Memos and Journals).

NOTE: The researcher believed that belief and commitment were more evident when the teacher was in-role as the mayor/alien and involved in the games. The alien dance maintained a focus for the children.

5.3.7 Memos

MEMOS (M)

AFFECTIVE (A)	PROBLEM-SOLVING (PS)	OTHER (EA)
Accents (SI)	Insightful (SI, SO)	Control (SI, IT)
Attitudes (SI, SO)	Concentrating (SI, IT)	Professionalism (SI, SO)
Fully Commit (SI, SO, IT)	Find-out (SI, SO)	
Sense of History (SI)	Decided (SI, SO)	
Status (SI, IT)	Guide (OT)	
Believable (SI)	Variety of Responses (SI, SO)	
Authenticity (SI)	Discussion (SI, SO)	
Character Development (SI)	Teacher's Participation (IT)	
Sharing (SI, SO)	Symbols (SI, SO)	
Listening to Music (SI, SO)	Act-Out (SI, IT)	
Curiosity (SI, SO)	Dance (SI, IT)	
Complexity (SI, SO)	Letter (SI)	
Risk-Taking (SI, SO)	Fluid Sculpture (SI, IT)	
Imagination (SI, SO)	Movement (SI, IT)	
Intuitive (SI, SO)	Theatre Sports (SI, IT)	
	Clarification (SI, SO)	
	Experimented (SI, SO)	
	Sharing Images (SI, SO)	
	Demonstrate Ability (SI, SO)	
	Fluency (SI, SO)	
	Flexibility (SI, SO)	
	Originality (SI, SO)	
	Elaboration (SI, SO)	

Figure 5.6:   Memos to verify the trustworthiness of the research
paradigm.

PARTICIPANT CODES
SI - student in-role
SO - student out-of-role
IT - in-role teacher
OT - out-of-role teacher
EA - emotional awareness

CODES/ CATEGORIES: *Link to problem-solving.

MEMOS: (M) *To check Trustworthiness.
FIND-OUT*(SI) (SO)
DECIDED* (SI) (SO)
GUIDE* (sidecoaching) (OT)
VARIETY OF RESPONSES*
ACCENTS (SI)
SENSE OF HISTORY (SI)
BELIEVABLE (SI)
TEACHER'S PARTICIPATION* (IT)
FULLY COMMIT (SI) (SO) (IT)
INTUITIVE* (SI) (SO)
DISCUSSION*(SI) (SO)
SYMBOLS* (SI) (SO)
ACT-OUT* (SI) (IT)
DANCE* (SI) (IT)
LETTER*(SI)
FLUID SCULPTURE* (SI) (IT)
MOVEMENT* (SI) (IT)
CONCENTRATING* (SI) (IT)
CONTROL (SI) (IT)
STATUS(SI)(IT)
THEATRE SPORTS* (SI) (IT)
CHARACTER DEVELOPMENT (SI)
AUTHENTICITY (SI)
INSIGHTFUL* (SI) (SO)
CLARIFICATION* (SI) (SO)
SHARING (SI) (SO)
EXPERIMENTED* (SI) (SO)
SHARING IMAGES* (SI) (SO)
ATTITUDES (SI) (SO)
LISTENING TO MUSIC* (SI) (SO)
PROFESSIONALISM* (SI) (SO)
DEMONSTRATE ABILITY* (SI) (SO)
CURIOSITY* (SI) (SO)
COMPLEXITY* (SI) (SO)
RISK TAKING* (SI) (SO)
IMAGINATION* (SI) (SO)

FLUENCY* (SI) (SO)
FLEXIBILITY* (SI) (SO)
ORIGINALITY* (SI) (SO)
ELABORATION* (SI) (SO)

(Taken from Memos). (De Bono, 1973 & Dalton, 1985).

NOTE: The children worked as a team and when they discussed the difficulties of working in a group they were able to solve it. They shared ideas and experimented with different techniques. They took risks and constantly asked questions of each other and of the in-role teacher. They discussed a variety of alternatives to different situations which showed complexity of thought and curiosity. They offered ideas but were willing to change them to suit the theme or to experiment with a new concept. Their ability to convey their ideas was stronger when the teacher was in-role, e.g. during brainstorming sessions and in the re-enactment of the town.

The participants compromised and made suggestions within the group. Their ideas allowed for differing solutions because all ideas were heard, discussed, experimented with and improved upon with every new situation. Their ability to share and formulate new ideas provided the children with an abundance of alternative solutions from which they could make their final decisions. The town meetings gave the children a voice for their characters and generated a variety of ideas and solutions.

Chapter Six

DISCUSSION AND IMPLICATIONS

6.1 Discussion

The socio-cognitive framework of the study combined both the cognitive and affective processes. The study initiated an imaginative approach within a group situation, offering a variety of solutions to problems as they occurred for the participants. These solutions enabled the children to create an imaginary world with an emphasis on conflict resolution and empathy.

The case study approach engaged a wide range of strategies. The dynamics of this process gave directions that were challenging and demanding. The children became increasingly socially aware as their intuitive and problem-solving skills improved: as they progressed they built on one another's understanding. This strengthened their determination and commitment to the drama process.

The symbolism in the drama showed that theme-related activities stimulated the metacognitive processes of the children (See Table 5.1). The experiences of the children indicated the meaning-making that was essential to their learning. By understanding, reflecting upon the meanings in their writing, drawings, discussion and acting-out they proved capable of solving problems and communicating effectively.

The children's enthusiasm affected their problem-solving skills because they were analysing and interpreting these meanings into their own cultural

language. Therefore, the drama became a shared experience as the participants communicated their feelings in-role. The children controlled their emotions as they discriminated between what was real or fictitious in the drama experience.

The children's learning environment became immersed in a language landscape as the teacher/researcher tried out new themes or ideas suggested by the children during brainstorming activities. The activities became child-centred as the teacher encouraged a 'guided discovery' approach to provide a motivated group of individuals with the resources to expand their knowledge base (Brown & Cambourne, 1987).

The developmental possibilities presented in the dramatic episodes were numerous. The data created a flow of ideas and experiences that related to the in-role drama experience. The in-role drama influenced language development, the re-organisation of the children's symbolic interpretations, social cognition, social action, knowledge acquisition, problem-solving, interpersonal skills and intuition. These areas will be discussed in detail under the following headings:

- Symbolism:

  Rogoff (1990) and Goleman (1995) stated that emotional awareness
  developed the link between the cognitive and affective abilities. In this
  study the researcher hoped to develop and illustrate this link by
  symbolism.

- Group Interactions:

  This area targeted the social and problem-solving skills under the
  influence of the in-role drama experience.

• In-role Drama Teaching Techniques:

> The techniques of open-ended questioning, brainstorming, guide, believability, alien letter, fluid sculpture, theatre games and emoting-to-music were effective in stimulating problem-solving behaviour.

• Self-Evaluation:

> The children became reflective thinkers during intense brainstorming and through the journal activity. They built on their language skills and symbolic imagery through this technique.

These areas were discussed to support the in-role drama process and its influence on problem-solving in children.

6.1.1 Symbolism - connecting the affective and cognitive domains

In a structured in-role drama environment the children were asked to manage their emotions, create new alternatives to a situation and reflect on their experiences. This motivated the children to manipulate their environment and develop their understanding. These ideas were developed in the form of symbols (See Table 5.1). These images were compared and contrasted to identify the pure and ambiguous images. A pure image is, by definition, more complex or a higher-order image, it may demonstrate evidence of problem-solving stimulated by activity in an in-role drama.

Furthermore, in-role drama promoted higher-order thinking by teaching the children to empathise while solving problems. Observing these behaviours in a structured drama process developed dialectical reasoning because the creative mind was alert and active. That is, through open-ended questioning and discussion the children became reflective, critical thinkers. The children viewed each problem as another obstacle to overcome. For example:

Michaela:	I was thinking if you were to work with the boys, you just pretend that it's just another girl.
Greg:	Is that the same for the boys?
Michaela:	Yeah. Exactly the same for the boys.

[Interview 5: Reflections]

The teacher's role was to guide the children through any difficulties they came across. As the children discussed the problem of gender separation the teacher/researcher needed to main'' '' a positive atmosphere in the sessions. The children had to discover the answers to this social problem and they did this through an honesty and an awareness of each member's needs. As Bolton (1986) confirmed, "Effective assertion is open and honest communication" (p. 155).

Gender separation resulted in confrontation as the children felt mixing was an invasion of personal space. The children informed the researcher that when they performed group work in their normal classroom environment the genders were always kept separate. Walkerdine (1989) believed that separation of this kind may lead to a form of educational discrimination. In this study gender was not an issue as the children came to a resolution through their dramatic enactments. The drama helped them get through that difficult progression. The participants mostly handled the resolution in an assertive fashion. Michaela's action dealt with the problem without harming any of the participant's feelings. They created a more tolerant and imaginative approach to each other with the full acceptance of the group. Freely expressing their emotions gave the impression that everyone was willing to change their behaviour towards each other. Bolton (1986) noted that, "The more we express our feelings, the more we sharpen our emotional awareness" (p. 152). For example:

Interviewer:	What could you do in the future, which would help you work as one, big group? Bob.
Bob:	Avoiding people, if you're a girl avoid boys.....
Girls:	No.
Interviewer:	That's something you cannot avoid. There are ways you can work around doing that.
Susan:	Try and make it look like you're not trying to avoid them.
Jane:	Yeah, but you still have to get into a position where you still have to work because if you're going to work with people you don't like...
Greg:	Be tolerant, be tolerant....

[Interview 4 & 5: Reflections]

The children scaffolded or built on each other's understanding while they worked together. They set tasks and guided each other through the process This encouraged goal satisfaction because the children achieved what they set out to do. The children manipulated their environment to create their own meaning. The presence of the teacher in-role during questioning assisted in the development of problem-solving skills. For instance:

Interviewer:	How could we improve what we have done so far? Greg.
Greg:	I thought we could take little samples of everything and put them next to it and label them.
Interviewer:	Sounds good. Bob.
Bob:	Get a dictionary of everything in the world. We could actually give them a dictionary, couldn't we?
Interviewer:	Susan. (Wants to respond to Bob's idea.)
Susan:	But they would have to translate all our language into their language.
Bob:	No, if we sent it to them we could change it all first.
(Starting to build on one another's knowledge - example of scaffolding.)	

[Interview 3: Group Skills]

Participation in the drama allowed the children to communicate their ideas freely because the dynamics of the group encouraged group sharing. Listening

and sharing skills were enhanced and this offered structure and security within the drama frame. Valuing the children's contributions transformed their performance and fostered the development of higher-order thinking skills (McLeod, 1989). Arnold (1994) suggested that connecting with our emotions makes our meaning-making more insightful. Interview Three demonstrates how the children organised their symbols to communicate with the aliens.

The children had to discover a symbolic language to represent their town. They communicated this language in gesture, such as handshakes or acknowledgment of another town member and in images. The researcher then listed these different forms of interaction into a working framework. The children developed their skills using this framework during discussion time.

The in-role drama, combined with a powerful symbolic framework, assisted the children in becoming successful decision-makers. The in-role drama strategies empowered the children to become creative and reflective by supporting their imagination. This enabled the children to control their learning and to develop insights into the way society functions.

The children were thinking about thinking, i.e., they were engaging in meta-cognitive processes during intensive discussion and role-play. Metaphor stimulated the intuitive processes as the children became actively involved during dramatisation. The researcher encouraged the children to constantly ask questions in and out of role to stimulate the brainstorming sessions and the dramatic activities. This helped expand their knowledge as they expressed an interest in the drama and a desire for information. Intuitive development in all the participants increased the awareness of their thinking potential (Stanislavski cited in Goode, 1983, p. 8).

It seemed to the researcher that the children learnt through a layering technique where they placed newly acquired knowledge on top of new experiences,

thoughts and feelings. Kress (1997) believed that metaphor acted as a sign assisting children to make sense of their world in a social context, and this experience was an imaginative act linked to their social, cultural, physical, psychological and cultural origins. In this study the children make sense of their imaginative world by collaborating in interviews, discussions in the town meetings, the fluid sculpture and letters. The children re-organised their imagined world and set new constructs to establish some form of change. These cons'ructs involved those parts of human nature that stimulated our curiosity when we came across a situation for the first time. In-role drama acted as a vehicle for these constructs so the children could develop them through stages.

The children's behaviour towards each other changed dramatically. They were able to reflect on how to resolve their differences and co-operate with each other. This allowed for increased participation and an improvement in sharing and listening to one another. They interacted symbollically and that meant they were transforming their shared roles in an imaginative way. McLeod (1984) stated that drama was an interactive process that could actively foster a connection between symbol and experience (p. 10). O'Neill (cited in Smigiel, 1995) and Wagner (1998) believed that in-role drama deepened the children's understanding and engaged them in meaningful role play. In this study the children's creativity fostered this sharing process and initiated further discussions on a deeper level than they had anticipated (Arnold, 1998).

The children drew on symbols from their sociocultural framework and generated original symbols to express the meaning they made in their drama (See Table 5.1). The children's use of imagery indicated their potential to be creative in their problem-solving. Courtney (1990) stated that problem-solving calls on our creative processes. The children solved each problem as it occurred and scaffolded their ideas to plan their next journey. They mapped out their

understanding of social constructs and further defined their reality as they developed their social skills.

The researcher needed to allow for this creativity to develop naturally. To observe the results of the procedure this form of activity had to centre on the children. The children needed freedom to explore all the possibilities available to them and a socially active environment was necessary to give the children control over their learning. The Curriculum Council (1998) stated that children learn to develop a sense of 'personal and cultural identity' through the experiences they encounter. They also learn to value the ideas and feelings of others by being encouraged to communicate and express these ideas through their imagination (p. 3).

The children showed their creative intelligence because the symbols created were transformed through their experiences. The presence of the metaphor enriched the inquiries because it focused on solving problems in a 'ritual performance'. This strengthened the message that drama influenced the social scene, especially educational practice. This was drama in action because it placed the participants in a social setting and demanded their complete co-operation and attention to resolve any problems that existed in this setting. The children created the symbolism and gave it form and shape because they acted-out each scene to experiment the effectiveness of their solutions to the problems. They developed the dramatic action while in a social setting as they imagined each situation and how they would react to it. For example when asked to imagine what an alien would look like:

Question Two:	"How do you think an alien would move?"
Bob:	Blob, blob, blob. Just big, fat and just roll over, and their eyes just go back until they get into the right position.
Interviewer:	Could be. Michaela.
Michaela:	I reckon they'd like slide.

Interviewer:	Mm hmm. Jane.
Jane:	Umm, I'm not really sure.
Interviewer:	I'll get back to you on that. Greg.
Greg:	Sort of with legs wide open, wobbling awkwardly, sort of like a penguin.
Interviewer:	Good. Susan.
Susan:	Weill could say human form, you never know, but they could walk anyway, anyway like us. Well if they didn't, I don't know really I've never seen one.
Interviewer:	But you could imagine what it would be like?
Susan:	I try not to. (Laughter). They'd slide.

[Interview One: Alien Landing]

The fluid sculpture further developed the children's understanding or perception of what an alien would look like. They either contorted their figures to suggest an awkwardly moving evil creature or took on more graceful ballet poses to demonstrate a friendly alien. The children differentiated between two possible outcomes, that the alien would be good or evil. They could not see that the alien's nature could encompass both sides.

The drama researcher needed to examine all of these opportunities as a guide for intellectual development. In-role drama allowed the children to build on their understanding and experience and this led to an increase in their problem-solving skills. Incorporating a network of ideas, in-role, would affect the children's out-of-role group dynamics. This effected the interpersonal, empathic and social skills of the children.

Developing children's abilities to tap their inner thoughts improved their empathy and socialisation techniques. The ability to view the world differently and create new perspectives enabled the children to solve problems in an imaginative and empathic way. For as Way (1967) noted:

At the beginning of drama we are concerned with helping each individual to discover and explore his or her own resources, irrespective

of other people. At a later stage, drama includes the discovery and exploration of one's environment, and within that environment are seen to exist many other people towards whom one begins to feel a growing sensitivity through each of the basic personal resources (p. 12).

Way (1967) insisted that drama encouraged, or actively assisted, children to achieve originality of thought. Way (1967) believed that teaching intuition or an 'inner resourcefulness' prevented children from becoming too dependent on the teacher's ideas. He argued that the way to develop this resourcefulness was to tap into their intuitive abilities (pp. 5 - 6).

6.1.2 Group Interaction as a Stimulus for Improved Problem-Solving

Bolton's (1979) three factors of personal, universality and analogous enhanced social interactions and problem-solving by focussing on the children's developing dramatic skills. These factors may define drama as purely dialectical, which means that through open-ended questioning and discussion the children became reflective, critical thinkers. Defining these areas illustrated the children's progression through the drama.

Personal

On a personal level the children became more self-aware and self-confident as the sessions progressed and learnt to value the suggestions of others. In the first session:

> The children were reluctant and anxious initially. The in-role teacher/researcher had to develop their abilities slowly so that the children felt they were in control of the decision-making. This was the beginning stage of sharing their emotions and ideas [Memo].

However, by session three the children had developed their group skills and learnt to work together:

> The children discussed the themes they could explore in the improvisations and tried them out after each discussion. They decided to place the symbols in the suggestion box, select one and then act-out a scene to depict the symbol. They believed this method of selection to be more equitable and prevented favouritism [Journal-in-role teacher].

The children also developed new insights about their social environment. In session three, "The children found that the letter writing exercise clarified their understanding of the importance of symbols in society" [Journal - in-role teacher]. In session four the children further developed their understanding of human society as:

> They intertwined images to convey the ideas of peace and confusion. They believed that this worked to show that the world was not always a safe place to be. They also wanted to show the aliens that humans aren't perfect, that they make mistakes and lose their way at times [Journal-in-role teacher].

Universality

Universality was identifiable in the symbols created by the children in their drawings (See Table 5.1).

The children attained new skills that enabled them to imagine another person's point-of-view. When discussing how to approach the aliens and seek more information about translating their language Bob noted that:

Bob: Maybe they'd pick it up and think that we don't
        like them. Maybe we should ask them how we
        should analyse it because we might do something
        bad, they might take offence.

                                                [Interview 3: Group Skills]

The researcher believed that as the images created by the children increased in intensity, so did the children's ability to make sense of their new world. The children produced powerful images to convey their final message to the aliens and in doing this they clarified their own understanding of the world:

They experimented with different emotions and with the issues of love, war, confusion and peace to create the ritual dance for the aliens. The children felt that sharing these images would give the aliens a greater understanding of human nature [Session four - Memo].

The children used sharp and aggressive movements to depict the devastation of war and violence. The sculpture then flowed into the image of confusion. They moved around awkwardly without having any real direction. In the final movement to show peace, the children stretched out their hands in a gesture welcoming the alien to the planet [Session five - Memo].

It was possible that the introduction of music and costuming into the drama, though at the children's request, added another variable to the study. Artworks and music trigger an emotional response, especially if the participant identifies with it as part of an experience or memory (Courtney, 1990). These elements could have acted as a further stimulus to the development of the children's problem-solving skills.

Analogous

The researcher believed the children saw a connection between positive contact with the aliens and co-operating with each other and this resulted in a change in their perceptions. They also realised that to improve the dramatic performance they had to learn to be tolerant and to work together:

Jane: Yeah, but you still have to get into a position where you
               still have to work because if you're going to work with
               people you don't like...
Greg: Be tolerant, be tolerant....
                                          [Interview 4 & 5: Reflections]

Figure 5.3 demonstrated the link between group symbolism and improved problem-solving. Social interaction with an in-role drama focus generated a variety of responses from the students and resulted in fluency, co-operating, making value judgements, flexibility and compromise.

6.1.3 The Success of the In-Role Drama Teaching Techniques

Figure 5.5 showed the techniques the in-role teacher used to improve the children's problem-solving skills. The researcher believed that guiding the children through the drama resulted in a secure yet challenging environment and this helped the children to attain new skills. The teacher stepped out-of-role when the participants were ready to continue on their own, side-coached them through the in-role drama technique, fluid sculpture, brainstorming and reflection time and in so doing assisted full participation in the activity. The children controlled the drama and the teacher offered advice when needed. Respect developed as the children were considered equal players in the drama experience. Heathcote discussed the importance of gaining the children's commitment in the drama, especially when making decisions because it was one of the hardest things to do (cited in Wagner, 1979, p. 26). Indeed:

> The researcher believed that belief and commitment were more evident when the teacher was in-role as the mayor/alien and involved in the games. The alien dance maintained a focus for the children.
> [In-role drama teaching techniques - Note]

The in-role drama techniques acted as guidelines for the drama and helped to, "... keep the commitment from the group clear and alive" (Bray, 1991, p. 5). The teacher in-role initiated the brainstorming sessions and so triggered the children's decision-making abilities to allow for further discussion. Brainstorming challenged the children to examine what made their town operate, who lived there and how they would react to different situations. Dalton (1985) stated that, "Perceptive and challenging discussion strengthens the intellect and provides for the best transfer of understandings and thinking skills across the curriculum" (p. 7).

Scher and Verrall (1975) and Neelands (1984) stated that the disadvantage of using a fluid sculpture induced the reduced chance for role development and

the lack of tension within a situation. The researcher found that the technique incorporated a diverse range of skills such as concentration and an increased awareness of their character's experiences.

Developing empathy or the ability to step into other people's shoes and experience their conflict, thoughts and feelings assisted in improving the children's problem-solving skills, for as Greg stated when working with others it was important to, "... be tolerant." The teacher in-role as a council member or as an alien gave the children a different perspective on how to treat others and this interaction may have influenced their ability to resolve conflicts and solve problems. Their interpersonal skills improved considerably because they began to understand the relationships between individuals within a group. Bolton (1986) stated that in, "... collaborative problem solving, once the people discover they have conflicting needs, they join together to find a solution acceptable to both" (p. 238).

6.1.4 Self-Evaluation - Becoming a Reflective Thinker

Reflection strategies, such as the student journal, enabled the children to develop a deeper awareness of their characters and an increased understanding of the drama techniques. As Wagner (1979) stated it taught the children, "... the ability to identify ... to help children understand human experience from the inside out" (p. 33). It also assisted the children in making decisions based on what they had written by clarifying their ideas. The children were encouraged to write a letter in character to the alens about a meeting place and to list the symbols they would use to communicate:

```
LETTER TO THE ALIENS
WE HAVE READ YOUR LETTER AND WE ARE GOING TO MAKE
SIMBELS [sic] FOR LOVE FOR HAPPINESS FOR FRIENDSHIP FOR
PEACE AND FOR CONFUSTION [sic]. WE HAVE MADE A PLACE TO
MEET AT THE OLD QUARRY
FROM THE TOWNSPEOPLE. [Session three - student journals - Jane]
```

The children also clarified their feelings about the alien landing:

> In Drama we have been Acting out a town who have an encounter with Aliens. The Aliens are friendly so they [we] don't have to be very conserned [sic]. {Session three - student journals - Greg]

The abilities to question and make judgements on a variety of issues required specific skills acquired by practicing problem-solving. Reflective exercises encouraged the children to keep a record of their thought processes in symbol and letter form and they referred to this material during discussion time. This acted as a resource that kept the ideas flowing within the group. The teacher in-role encouraged self-evaluation and taught the children to discuss openly their feelings about the drama and the way they would like it to continue. This was important because:

> Evaluation-in-role keeps the drama going and allows the children to evaluate from within. Evaluation as 'ourselves' allows the children to address themselves to a wider context than just the context of the drama - they are able to discuss other aspects of what's happening in relation to the drama, and also it allows evaluation of the way the drama is developing (Neelands, 1984, p. 53).

Eisner (1979) asserted that evaluation was an 'artistic problem' and should look at the phenomena of experience. Relating the children's experiences in a reflective manner motivated good listening and discussion skills as:

> The art of good listening involves the ability to respond reflectively. In a reflective response, the listener restates the feelings and/or content of what the speaker has communicated and does so in a way that demonstrates understanding and acceptance (Bolton, 1986, p. 50).

For example:

Michaela: It's much easier to work with people you like.

Susan: It's much easier to work with people you like, because you understand them.

                              [Interview 4 & 5: Reflections]

Increased reflection resulted in increased drama opportunities. Intensive discussion and debate challenged the children to be more specific about what they wanted from the drama and enhanced the play. The children became more informed about the situations they encountered through this type of shared discourse (Taylor, 1994). They were establishing their own drama by becoming reflective thinkers (Wagner, 1979). Examining possible alternatives in discussion gave spontaneous improvisations more meaning. In discussing the problem of communicating with the aliens the children responded in a thoughtful and reflective manner:

Interviewer:	How could we improve what we have done so far? Greg.
Greg:	I thought we could take little samples of everything and put them next to it and label them.
Interviewer:	Sounds good. Bob.
Bob:	Get a dictionary of everything in the world. We could actually give them a dictionary, couldn't we?

[Interview 3: Group Skills]

Reflection acted as a decoder of life experiences by analysing the elements of experience and thought. It differentiated between the way we perceive life and the way we express this through ritual. The teacher encouraged the children to use drama terminology and view their world differently to build on existing knowledge. The children became reflective thinkers because they confronted the challenges posed by the in-role drama in discussion and enactment.

6.2 Limitations of Study

Critics of in-role drama term it a 'manipulative instrument' in which the teacher controlled every situation as it occurred, or merely used it as an opportunity to show off his/her acting ability. The researcher believed that taking a socially active role in the drama facilitated the experience for the children and thereby assisted in developing their critical and creative thinking. The in-role teacher's presence did not stifle the children it enriched the experience (Rosenberg, Pinciotti, Castellano & Chrien, 1987; Errington, 1992). Indeed Taylor (1994) asserted that:

> Critics tend to forget that teacher role play is occurring within a fictional world which is characterised by human struggle. It is difficult to think of a playtext which does not explore humans grappling with the contradictory forces in their lives (p. 12).

6.3 Conclusions

In-role drama techniques appeared to enhance the development of the problem-solving skills of eleven year-old children. The drama sessions stimulated the children's emotional awareness as they developed their symbolic imagery. The in-role drama generated symbolic activity that led to the creation of a universal language. The techniques assisted in improving the children's empathic abilities and this further developed the children's emotional awareness and motivated them to develop their intuition.

The case study paradigm initiated a socio-cognitive framework that focused on specific areas of development. Social Reconstructionist theory enabled evaluation of the effect of in-role drama on the children's social skills (Errington, 1992). The drama was socially reconstructed and became the

guidelines for the children's abilities to evaluate their performances (Rogoff, 1990, Errington, 1992; Denzin & Lincoln, 2000).

The observations allowed the researcher to watch the children negotiate their meanings and include this new perspective while in-role. They made sense of this new world through these negotiations and through spontaneous play. Their interactions supported their imagination, as they considered all opinions on how to develop their town. By observing these interactions the researcher could see what was taking place in the drama and in the meaning-making and know when to extend it to help the learning. The children essentially gave the researcher the freedom to observe and monitor their behaviour.

The researcher devised a routine to step-out of role when the children appeared in control of the drama. Using these devices helped in monitoring the children's progress or in determining when to offer advice. This prevented the children from becoming confused and kept the drama from losing momentum. Side coaching also gave the freedom to step-out of role and assist the children if they required it.

The group dynamics showed that the children monitored their own abilities through self-evaluations and discussion in-role. The journals helped to validate the children's understanding of the drama, group work and symbolic interpretations.

Collaborative learning allowed the drama to take on its own qualities as determined by the insights of the children. Co-operating as a group gave the researcher the understanding that in-role drama functioned as the group became aware of the other member's needs. The drama strengthened the children's abilities to negotiate their meanings in the drama and gave these meanings more creative energy. For example:

- Empathy for other members of their group, as they learnt to understand the role emotions played in co-operating with others.

- Role development and experimentation of ideas empowered the children to construct their imaginary world.

- Decision-making, resolving conflicts and compromising on issues concerning the children allowed for increased participation and greater social awareness.

- Communication barriers were broken down as the children found a balance between their listening skills and acceptance of responses in discussion time, especially in out-of-role reflection.

- Students showed evidence of metacognition through original ideas as they developed a network of thoughts and feelings in a socially interactive environment.

- The children's symbolism showed evidence of problem-solving as the researcher believed that cognition and emotional awareness were heightened during the emoting-to-music session and fluid sculpture.

- Group dynamics functioned as a unified, imaginative force within the drama frame.

- The researcher's ability to model in-role drama effectively was essential to determine the effects the metaphor had on the children's perception of the drama and the final outcome.

- The children's commitment gave them the space to explore alone or as a group the essence of the drama.

- A respect for the rights of the individual was part of the socio-cognitive framework as the children became a group that manipulated their

environment and challenged themselves to take risks and try out new ways of thinking.

• Self evaluation in journals and reflection time gave the participants the responsibility to monitor and criticise their work.

As a group the children used these strategies to map their imaginary world and to improve their group skills. The in-role experience needed to be believable to the participants as they travelled through their fictional world. The ability to view the world differently and create new perspectives enabled the children to solve problems in an imaginative and empathic way.

6.4 Implications for Schools and Administrators

Class programs must comply with the required curriculum and be developed to optimise the learning potential of the students. The improvement of problem-solving skills should effect a positive outcome for any subject area. The First Steps (1994) curriculum package suggested that this type of development fostered in children an imaginative and purposeful realisation of their learning potential. It promoted literacy development through the expansion of the children's problem-solving of their internal and external environments.

The Curriculum Council (1998) observed that all areas are 'interrelated' and that learning improves developmentally by adopting methods and suggesting possible plans of action. These actions initiated a social setting that was constantly modifying itself to meet the needs and interests of its children, staff, parents and the community The results of this study suggested that in-role drama may provide a tool to accomplish such an outcome and this should be

sufficient stimulus to both schools and administrators to consider including in-role drama into class programs.

6.5 Implications for Teachers

Teachers were concerned with their students developing their full potential and any learning context that assisted in achieving this aim must be of value. Morgan and Saxton (1987) stated that the teacher in-role was the most effective technique in a role drama because the teacher took part, while also monitoring the students, controlling discipline and learning, yet released, "... the power to the students when they are ready" (p. 38). Bolton (1992) believed that the technique put the students "in context" in the drama experience and thereby facilitated learning of a different quality (p. 32). Past research also suggested that in-role drama may positively affect problem-solving skills (Myers and Berman Cantino, 1993). If in-role drama could aid in student learning, then the implementation of the technique must be given some consideration by educators. The evidence from the present study supported the use of in-role drama to aid in developing the problem-solving skills of eleven year-olds.

6.6 Implications for Students

Students have a right to expect the best possible education and an interesting learning experience. In-role drama provided such a learning experience and appeared to act as a stimulus to the development of problem-solving skills. Catterall & Darby (1996) stated that, "Cooperation skills and contributions to the whole are regarded nowadays as cornerstones of economic productivity and social health" (p. 149). In this study improved social skills assisted in developing the children's understanding of the symbols generated by the

sessions. This may have developed the affective and cognitive areas such as co-operation, listening and sharing ideas, imagination, creating new alternatives, reflecting on the experience and enactment. Resolving conflicts and improved communication skills gave the researcher insight into how to promote effective teacher/children, children/children interactions. Self-evaluation taught the children to communicate successfully by continuously immersing them in the discussion process. The children manipulated their environment and controlled the outcomes as they reflected on each encounter.

6.7 Implications for Future Research

This study may provide a resource collection of suggestions, strategies and experiences useful to future researchers. In-role drama was an effective learning tool for solving problems, conflict resolution and character development. This study may act as a starting block, a theoretical construct from which other theories could emerge. Similar studies may determine the effect of in-role drama on the development of the problem-solving skills of different age groups.

Future researchers could look at the effect of in-role drama on emotional awareness, socialisation, problem-solving and empathy. Children with behavioural problems, specifically poor social skills, may benefit from the in-role drama technique.

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APPENDIX I

Wassily Kandinsky (1886-1944)

Impression V-The Park 1911

(Bazin, 1964)