Research Note

An Exploration of the Effects of Implementing Sociocultural Based Teaching Strategies in Visual Art Education

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ABSTRACT: *The focus of this research was on the effects of socially constructed teaching strategies on children's skills in symbolic representation as part of the visual art education programme in an early childhood centre. An experimental group worked together with a Vygotskian approach to scaffold each other's learning. A control group was provided with a Piagetian approach of a resource rich environment for them to explore and learn in. The Vygotskian approach was found to be advantageous to children's skill levels.*

INTRODUCTION

Vygotsky's theory argues that learning is socially constructed. By establishing a child's zone of proximal development, Vygotsky believed that through interactions, a more competent person could scaffold a child's development. A child's zone of proximal development is an area established between the child's current level of development and the level of development they are capable of achieving. He believed that learning opportunities were promoted by working as part of a social group with people with a range of abilities (Berk & Winsler, 1997). A Piagetian approach however, allows for children to progress naturally through sequential stages in a resource rich environment with minimal support of adults or their peers. My research aimed to discover what effects socially constructed teaching strategies have on children's skills in symbolic representation as part of the visual art education programme in an early childhood centre.

Gunn (200) explored Christchurch early childhood teachers' beliefs in relation to visual art education. Gunn explored three orientations reflecting teachers' beliefs – rote, child-centred or cognitive. The findings of the research showed a majority alignment with a child-centred approach – providing a Piagetian based resource rich environment with minimal input from adults. Smith (1996) discusses the importance of promoting an educare concept that promotes a sociocultural perspective, focusing on a curriculum that leads rather than follows child development. *Te Whaariki* has based one of its key principles on the

social-cultural perspective, "Children learn through responsive and reciprocal relationships with people, places, and things" (p. 14).

METHOD

This research was carried out during a four-week period in 2001 within a regular kindergarten programme where I am a teacher. It was structured into three phases:

- Week One – Baseline phase
- Week Two and Three - Intervention phase.
- Week Four – Post-intervention phase.

Written ethical consent for the involvement of the children was gained in the baseline phase. In each phase, the children themselves were also able to choose if they wanted to participate.

Baseline Phase

The participants in the research were selected from the 34 children currently enrolled to attend the kindergarten five mornings each week. Two groups of six children were formed – an experimental group and a control group. The selection criteria began with each child who attended regularly being asked to draw an initial sample drawing of themselves. The only input from an adult was in the form of positive feedback comments (e.g."You are working very hard").

The sample drawings of the children were then assessed. One point was allotted for each category. The children were then allocated a grade depending on their score.

- Grade 1 – score of 12 or greater.
- Grade 2 – score of 9,10 or 11.
- Grade 3 – score of 8 or less.

25 children completed the baseline phase. The resulting scores were:

- Grade 1 8 children
- Grade 2 – 10 children
- Grade 3 – 7 children.

A zone of proximal development was therefore established for each child. To ensure that children with a range of abilities were present in each group, the experimental and control groups were made up of two children from each

category. A random selection was made by mixing up the "Evaluation of Sample Drawing" sheets and randomly selecting them with no knowledge of the artist, that is the sheet drawn first became the first member of Group A, the sheet drawn second became the first member of Group B (etc). Groups A and B were then mixed and chosen at random to represent the two groups.

Intervention Phase

The intervention phase was carried out during six sessions over two weeks.

(a) Experimental Group:

- The children were encouraged to join the small group and draw a person at each intervention session. For the first session, I chose the materials the children would work with and through discussion, the children chose who they would like to draw. Each session began and ended with a discussion to decide what the children would like to draw for their next picture and the utensils they would need.
- Language was used as the main tool for scaffolding the children's learning. The sociocultural strategies of adult and peer scaffolding were utilised. Discussions included encouraging the children to share their ideas with their peers. My input lessened with each session and encompassed positive feedback comments, suggestions for their work and encouragement for the children to share their ideas with each other.
- The children's drawings were collected each day using photocopies if required.
- Written sample records of the children's language were taken.

(b) Control Group:

- The children in the control group were also able to decide daily who they would like to draw and which materials they would like to use.
- As in a Piagetian approach, the children were supplied with the resources for them to explore by themselves.
- Adult input was limited to positive feedback comments.
- The children could choose to work at the activity by themselves, as part of a parallel play situation or interacting with a small group of their peers.

Post-Intervention Phase

The post-intervention phase was completed with the children in the experimental and control groups only. The children were asked to draw a final sample drawing of themselves, under similar circumstances to the baseline phase

drawings. The drawings were then graded in the same way as they were in the baseline phase.

RESULTS

The children's sample drawings from the baseline and post-intervention phases were used for the results. For each drawing in these phases, an "Evaluation of Sample Drawing" sheet had been completed. The results for the experimental group showed a dramatic increase in the average scores obtained in the baseline phase of 10.83, compared to the post-intervention phase average score of 23.33. The control group however, gained an average score of 11.5 in the baseline phase and a lower average score of 11.0 in the post-intervention phase. In the baseline phase, both the groups consisted of two children from each of grades 1, 2 and 3. The post-intervention phase grouped the entire experimental group in grade 3 (a score of 12 or greater). The control group showed a wider diversity with three children in both grades 1 (a score of 8 or less) and grade 3. The progress made by Child C in the experimental group can be seen in Figures 1A and 1B. Figures 2A and 2B show Child J in the control group whose results had a negative effect on the average score of the control group.

Figure 1A: Sample Drawing for Baseline Phase – Child C

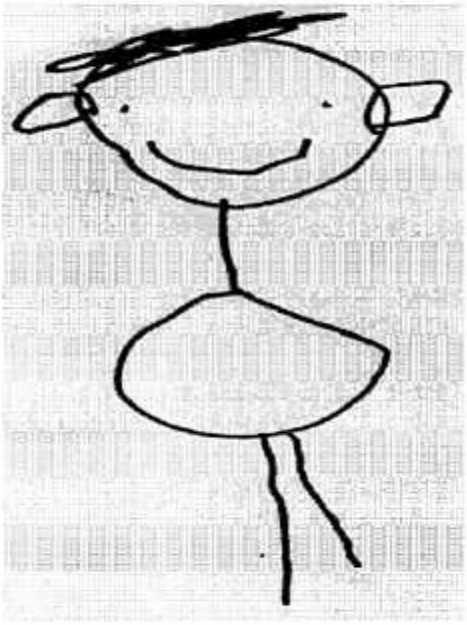


Figure 1B: Sample Drawing for Post-Intervention Phase – Child C

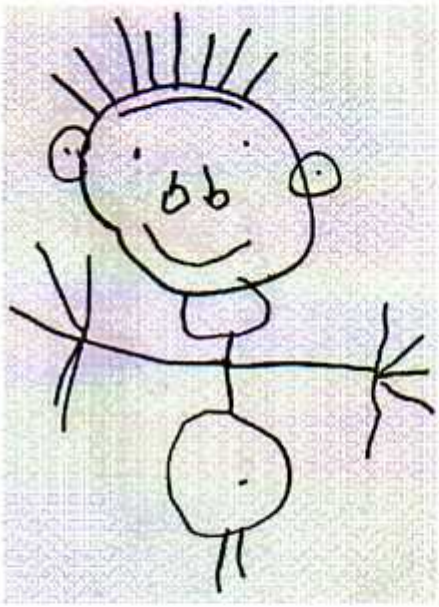


Figure 2A: Sample Drawing for Baseline Phase – Child J

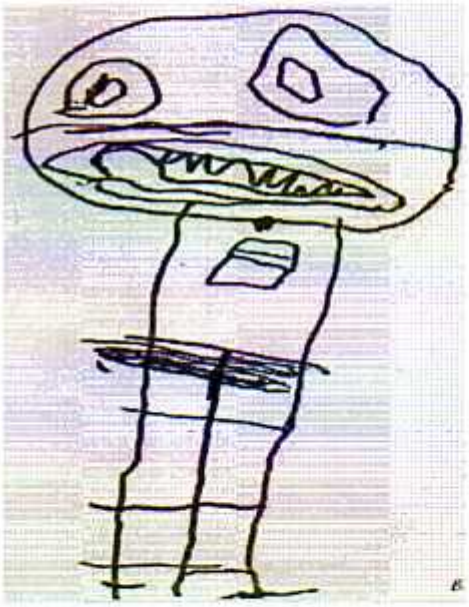
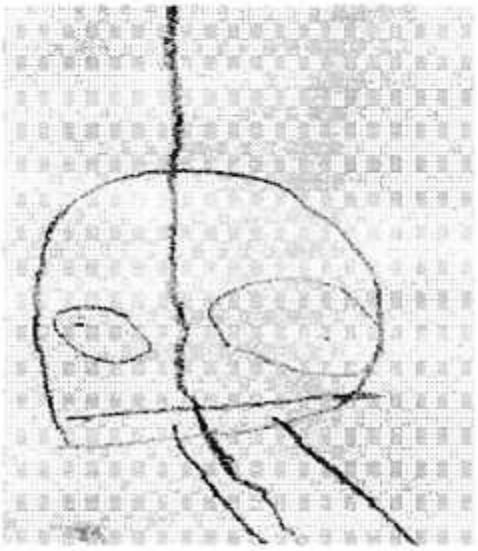


Figure 2B: Sample Drawing for Baseline Phase – Child J



The enthusiasm and involvement of the children in the experimental group grew rapidly. They quickly began to take control of the intervention phase. The children had free choice within the group decision on who they drew, however the majority of the sessions followed this format:

- Session 1 - A whanau member drawn with felt pens.
- Session 2 - A large cardboard cut out of a person drawn with pastels.
- Session 3 - A live model – a teacher trainee drawn with felt pens and pastels.
- Session 4 - The researcher drawn with pencils and watercolour paints.
- Session 5 - Photographs of children in the Kindergarten drawn with pencils and pastels.
- Session 6 - A wide range of different people drawn with pencils and felt pens.

The children in the control group working within a Piagetian learning environment produced very different results. For each intervention session, all the children had been introduced to the activity and provided with the resources. However three of the children, Child G, Child J and Child L did not use the

activities at any time during the intervention phase. Child I and Child K drew a picture once and Child H drew pictures in two of the sessions

The results showed numerous positive effects of using Vygotsky's socially constructed teaching strategies. The children in the experimental group were able to help each other in their learning once they were given strategies for how to support each other. Throughout the intervention sessions the children were encouraged to share their ideas for their drawings with their peers. They were verbally positively reinforced for doing this (e.g. "That was a good idea to tell your friends about drawing five fingers. That will help them to draw their picture too").

There were many examples of the children scaffolding each other's learning. For example:

> Child E: I'm finished mine now.
>
> Child F: He hasn't got any feet. *(Session 2)*
>
> Child C: We didn't put any fingers on. *(Session 2)*
>
> After the session, Child D approached me and said, "Next time, I'm going to tell them toes and feet because we didn't do them."

Samples of children's language showing a sociocultural approach include:

> Child D: Do a really happy face, okay guys? *(Session 5)*
>
> Child B: Red lips, red top, ears *(Session 3)*
>
> Child A: Hands, ears, belly buttons. *(Session 3)*
>
> Child A: We have to put our "brain buttons" on! *(Session 6)*

From individual comments, the children began to have conversations with each other about their work.

> Child D: We can't fit any teeth in.
> Child E: Yes we can.
> Child D: We can do little teeth.
> Child A. Yes, because we've got little teeth and adults have got big teeth. *(Session 5)*

> Child D: We can't do teeth.
> Child F: How do you do teeth?
> Child A. You just go . .(Child A illustrates how to draw teeth with her arm in mid air) *(Session 6)*

The children also began to help each other even when the help was not requested. An example of this was during the evaluation phase. Two of the children from the experimental group chose to draw their final pictures together.

> Child A: I'm putting eyeballs on my Mum.
> Child B: Don't forget eyelashes.

The confidence in their abilities of the children in the experimental group also grew. An example of this was Child F. He initially had reservations about joining his peers in drawing as he stated,

> "It's too hard. I can't do it".

However, from session four onwards, he was the first to arrive at the table each day! The progress in Child F's abilities is shown by Figures 3A and 3B.

Figure 3A: Sample Drawing for Baseline Phase – Child F

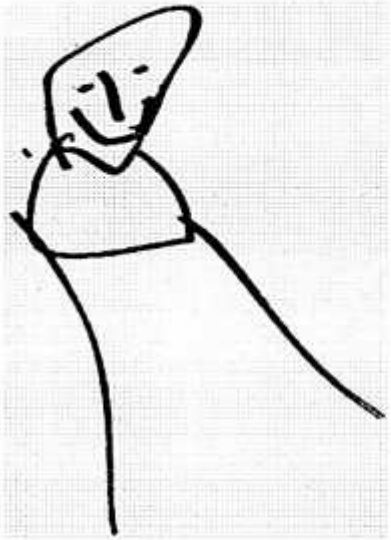


Figure 3B: Sample Drawing for Post-Intervention Phase – Child F



One of the aims of the intervention phase was for my teaching input to begin to decrease as the children became more confident in their skills by themselves. By session five, my input was very minimal. Examples of the kinds of language I used throughout the intervention to promote the sociocultural learning strategies were:

> I wonder what other part of your body you could add next?" [Child D] has had a really good idea. He's drawing feet.

These comments progressed to foster the children beginning to share their own ideas with each other.

> [Child A], it would be a great idea to tell your friends about what you are drawing."
>
> It is really helpful to share your ideas as that will help everyone else to think about their pictures too.
>
> Thanks for telling us about drawing the eyeballs. I like the way you are all helping each other to think of good ideas.

Vygotsky's theory of children working with more competent members of society was reflected in the way the experimental group supported each other. The more competent members of the experimental group, Child A, Child B and Child D, added lots of their ideas for their peers to utilise throughout the six sessions. Child C and Child F were particularly receptive to their ideas. They did not frequently add their own suggestions but listened intently and added aspects to their drawings upon hearing their peers' suggestions.

DISCUSSION

Gunn's (2000) research highlights the importance of adults maintaining a Vygotskian approach to visual art education rather than a Piagetian approach. Vygotsky believed that a Piagetian approach with the provision of a richly resourced environment for the children to discover by themselves without quality adult-child or child-child interactions does not guarantee that they will have extended themselves to their full cognitive potential. The results of the research clearly showed that a Vygotskian sociocultural approach to learning in the visual arts programme was more beneficial to children than a Piagetian approach.

This research could now provide a challenge to early childhood educators who have not yet tried a Vygotskian approach, to take up the challenge of working with their children in a new way, following one of *Te Whaariki's* key principles, 'relationships'. This will allow the curriculum to lead the children's development, not follow it, as Smith (1996) stated. For sociocultural theories to successfully permeate through the early childhood educational setting, it is essential for the children to perceive themselves as competent learners, knowing that they can make a contribution to the group.

I believe an implication for early childhood education in the light of Vygotsky's learning theory which promotes a high level of quality interactions between staff and children is the need for lower adult: child ratios. Children's skills would increase greatly if teachers were able to spend more time getting to know each child's zone of proximal development and being able to scaffold their learning. Teachers would also be able to focus on helping the children learn strategies to scaffold each other's learning. Professional development may need to be taken up by teachers to enable them to explore and investigate Vygotsky's approach. It would also be beneficial for future research to investigate broader areas of the art component of the programme and curriculum to discover successful ways to implement Vygotsky's sociocultural learning theories.

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ABOUT THE AUTHOR

Helen Davey is an early childhood teacher currently working for Kidsfirst Kindergartens in Christchurch. Her research was ignited by her interest in visual art education and children's abilities to scaffold each others learning.