DOCUMENT RESUME

ED 341 507 PS 020 302

AUTHOR Farguhar, Sarah-Eve; Laws, Karina

TITLE A Preferred Child Care Education Service: The Quality

of Te Kohanga Reo.

PUB DATE Sep 91

NOTE 24p.; Paper presented at the Early Childhood

Convention (5th, Dunedin, New Zealand, September 8-12, 1991). For related papers, see PS 020 300-301

and PS 020 307.

PUB TYPE Speeches/Conference Papers (150) -- Reports -

Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS Bilingual Education; *Cultur Awareness; *Day Care

Centers; *Ethnic Groups; F gn Countries;
Nontraditional Education; * ent Attitudes;
Preschool Children; Preschool Education; *School

Choice; Teacher Attitudes

IDENTIFIERS Aboriginal People; Maori (Language); *Maori (People);

New Zealand; Te Kohanga Reo (New Zealand)

ABSTRACT

After six decades of supposed equal resource sharing among all cultural groups, in 1982 the first Maori-initiated and operated child care center opened in New Zealand. Called a "Kohanga Reo" ("language nest"), it inaugurated a new movement, and by 1990 there were 612 such centers. This paper first describes the characteristics of Te Kohanga Reo programs, and then reports on a research study of parent attitudes toward them. Te Kohanga Reo are early childhood centers for the care and education of young children and the delivery of services to families. Most provide full-day care. They operate in a variety of settings, such as schools, community houses, private homes, churches, or Marae (Maori meeting places). They are licensed by the Ministry of Education. The centers feature immersion of children in the Maori language and culture, and "whanau" development: the involvement of Maori elders in Kohanga operation. Te Kohanga Reo is aimed at developing bilingual and bicultural children who can interact competently in both Maori and Pakeha worlds. The early education program fuses children's cultural needs with their developmental needs. Findings from a survey of 12 families in two programs suggest a high degree of congruency between people's aspirations and the pedagogy of Te Kohanga Reo. Contains 15 references. (LB)

Reproductions supplied by EDRS are the best that can be made

* from the original document. *



This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality

 Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

Paper presented to the Fifth Early Childhood Convention, Dunedin, New Zealand. September 1991.

A Preferred Child Care Education Service: The Quality of Te Kohanga Reo

SARAH-EVE FARQUHAR and KARINA LAWS

EDUCATION DEPARTMENT, UNIVERSITY OF OTAGO, DUNEDIN.

If a Martian family had visited earth a decade ago they would have been shocked and astounded to find that New Zealand, with its internationally high reputation in early childhood care and education, did not seem to be sensitive enough or doing enough to recognize the cultural needs of anyone else but Pakeha people (Fenwick, 1984). Under the Treaty of Waitangi (1840) Maori and Pakeha people are supposed to be partners in the control and equal sharing of resources. Until recently Maori parents did not have a genuine choice of early childhood service.

A revolution in the early childcare education field began in April 1982 when the first Maori, initiated and operated, centre opened. It was called a Kohanga Reo (language nest). Such was the success and need for this model of early education and care that a new movement was henceforth born. By the end of that year about 30 more had been established and this rose to 612 nationally in 1990. Recent statistics indicate a high Maori participation rate in Te Kohanga Reo (Ministry of Education, 1990). In 1989, 97.5 percent of children at Kohanga Reo were Maori. Approximately 45 percent (8,503) out of the 73 percent (10,589) of Maori children enrolled at some form of early childhood centre, attended Kohanga.

The intention of this paper is to explore what it is about Te Kohanga Reo programmes that make them a genuine choice of service for New Zealanders. Quality in early childcare education can be defined from a social-cultural perspective (Farquhar, 1990) and this paper sets out to identify and discuss the quality characteristics of Kohanga Reo through the eyes of parents and teachers.

Description

020302

Te Kohanga Reo are early childhood centres for the care and education of young children and a service to families. They may be in a variety of settings such as a school building, a community house, a privately owned home, a church hall, and on a Marae (Maori meeting place). Most provide full daycare although many are open part-day. They are licensed to operate by the Ministry of Education, and are required to have charters approved by the National Te Kohanga Reo Trust to receive government funding assistance.

The English equivalent of "Kohanga" is "Nest" and "Reo" is "Language". The concept of the "nest" provides a vivid visualisation of a place where growth is nurtured through love, care, and interest in development within the wider context of Maoridom as a whole.

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Sarah- Eve Farquhar

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

BEST COPY AVAILABLE



There is no doubt that Te Kohanga Reo has been a great success story for Maoridom. For example it was noted by Ranginui Walker that some 1,000 people attended Turangawaewae Marae for the Kohanga Reo conference in January 1984. At the Maori Educational Development Conference in March 1984 Maori were urged to withdraw from the existing educational system because it was failing Maori people and also to establish alternative schooling according to the Kohanga Reo model. Walker (1985) explains that centres benefit parents in providing them with opportunities to learn and practice Maori language. Te Kohanga Reo enables and empowers parents to articulate their needs and choose what is culturally best for them and their children.

The Cultural Dimension and Kaupapa or Philosophy of Kohanga Reo

The cultural dimension constitutes the principles of immersion of children in the Maori language (te reo rangatira) and culture (nga tikanga) and whanau development. At the heart of the movement is the desire (and urgency) for self-determination (mana motuhake) to ensure language and cultural survival.

TE REO (LANGUAGE)

Maori is traditionally an oral language. It was the European missionaries who developed a written language.

In the 1970s research indicated that spoken Maori was in danger of becoming extinct (Benton, 1979). Most native speakers were over 40 years of age and in many tribal areas there were few Maori speakers under 40 (Benton, 1979). Although about 20 - 25% of Maori were able to converse in Maori less than one percent of Maori five-year-olds were able to. The problem is exacerbated by the age structure of the Maori population. There are about four Maori children to every Maori over 45 years of age. Moreover, kaumatua (grandparents and great-grandparents) make up only about three percent of the population. Most kaumatua live in rural areas and country towns while the majority of Maori children live in the main urban areas.

The loss of spoken Maori seemed inevitable (Ka'ai, 1990). From the late 1800s until quite recently spoken Maori was banned in primary schools. Children were even administered corporal punishment for disobeying (particularly in the earlier colonial days). The attitude of Maori people towards their own language was negatively affected by educational policy and the negative attitudes of many teachers (Ka'ai, 1990). The mastery of English came to be viewed by most Maori parents and elders as a means to gain access to the new (pakeha) world of institutionalised education, health care, money, and standing in the community. They reinforced learning of the English language in their children; to the expense of promoting their own first language.

The Kohanga Reo movement has as its primary objective to ensure the survival of the Maori language and to promote its use through immersing children before they start school in a rich language environment. It is strongly believed that the most effective way of teaching language is to focus on children during their most receptive years and to provide support to families, agencies, and other institutions which have contact with the developing Maori learning child. To this end, it is advocated that children attend from birth. A saying which shows the emphasis on language teaching, through interaction, from a very young age, is:



"Whanau ana te Tamaiti, Me rarau atu, Whakamau te u, Kei reira ka Timata te korero Maori"

(When the child is born, take it, put it to the breast, speak Maori at that point)

NGA TIKANGA (CULTURE)

Te Kohanga Reo were designed to foster the values of the whanau. The concept of "whanau" describes the traditional family arrangement of parents, grandparents, relatives, and others who are or accepted as members of the family, and each share responsibility for children's care and socialisation. Whanau values include aroha (love) and manaaki (caring, sharing and empathy). This is considered important if children are to develop a sense of identity and pride in being Maori.

An integral component of nga tikanga Maori is spirituality (taha wairua). Te Kohanga Reo aim to instil a sense and appreciation of the spiritual in children. Touching another's head, for example, is not permitted as the head is the most important part of the body and tapu (sacred). Karakia (prayer) is said naturally by both children and adults as part of the daily programme. The importance of children, people and life is taught. Care of the soil, animals, plants and all living things is communicated to children through interactions and the use of natural materials in play and cultural activities (Halkyard, 1983).

WHANAU DEVELOPMENT

The principle of whanau development is central to the operation and success of the Kohanga Reo (Tawhiwhirangi, 1989). The Maori educational experts, the kaumatua (grandparents), koroua (male elders) and kuia (female elders) are considered to have a central role in providing guidance and tutelage. All members of the whanau are collectively responsible for Kohanga operation, from programming to administration, and involved in decision-making. This provides opportunity for a range of skills to be learnt, for example: catering, administration, gardening, maintenance and teaching. Parents are often involved in adult-learning programmes to ensure that they also learn Maori alongside their children.

The model of whanau development requires that all members of the Kohanga Reo whanau actively participate in learning together, collectively sharing the responsibilities for running their Kohanga and the work to be done. A report of a government review team in 1988 expresses two concerns about the ability of some Kohanga Reo to do this. First, in some Kohanga Reo only a small group of parents share the responsibilities; which does not facilitate whanau development. Second, women have been doing most of the work and have had the most involvement. Tawhiwhirangi (1989) suggests that while the women have been carrying the load, the men are being left behind in their learning, and the whanau (including children) have not benefited from their skills and interactions.

MANA MOTUHAKE

"Te Kohanga Reo is a contemporary example to New Zealand Society of how the principle of Tino Rangatiratanga (Self Determination) as expressed in the Treaty of Waitangi, can be implemented in practical terms" (Te Kohanga Reo Task Force, 1989, p. 4)



Because of a history of assimilation, marginalisation, and non-recognition of the principle of dual heritage of Maori and European under the 1840 Treaty of Waitangi, Mana Motuhake is a major objective and part of the kaupapa of the Te Kohanga Reo programme. Maori autonomy is sought through the movement by empowering Maori to control their children's socialisation and education and to influence education content and context in New Zealand society (Douglas and Douglas, 1983; Tawhiwhirangi, 1989). In this way Maori have taken greater control over their own language, lives and futures to decide what they want for themselves and demonstrate pride in being Maori.

Early Education

According to Ka'ai (1990) pre-school preparation in the context of Te Kohanga Reo kaupapa may help children to escape the cycle of poor educational outcomes, low occupational prospects, and juvenile delinquency. Te Kohanga Reo is aimed at developing bilingual and bicultural children who can interact competently in both Maori and Pakeha worlds. Because Te Kohanga Reo attempts to positively influence children's "collective cultural future" (Smith and Swain, 1978, p. 129) a major goal is to prepare children academically and socially for school as well as for life.

For her Master's thesis research Ka'ai (1990) explored the hypothesis that a "distinct Maori pedagogy where practical skills of the child are developed at the social and cognitive level" exists which will facilitate entry of Maori children into school on an equal basis with Pakeha peers (p. 10). From her observations she argued that the more that school classrooms adopt an immersion programme like Te Kohanga Reo the less likely children will experience a mismatch in pedagogical processes.

So what is the educational experience of Te Kohanga Reo like for children? A description of a typical daily programme of a Kohanga Reo at Massey is given by Edmonson (1984, p. 4 - 6):

"9.25 am: Shoes are removed at the door and mothers bring their children in, settle them and leave. The children are greeted and given instructions and settled by the Kaiako (teacher) in Maori. A prayer is said. An action song demonstrating parts of the body is sung as well as other children's songs. The children are then settled at the tables. Here they count and recognise colours with the use of blocks and dough. The Kaiako is constantly talking to the children.

10 am: All the equipment is cleared away and the children wash their hands in a basin. Grace is said and the children have hot mile and biscuits.

10.25 am: The children have free play now.

10.45 am: A picture story book was read to the children. Then newspaper hats were made for each child. The Kaiako, seated at the same level of the children, produced fruit and vegetables from a bag and these were named by individual children.

11.15 am: Pieces of apple were handed out and good manners stressed.



The quest for quality: Fusion of goals, beliefs, and resources

Te Kohanga Reo does not focus solely on meeting children's developmental needs as do, for example, most kindergartens and playcentres. The special cultural dimension of Te Kohanga Reo means that the quality of the service should not be judged in comparison to or evaluated with other early childhood services.

In the quest for quality some debates and issues have arisen. These reflect different emphases and meanings attached to early education philosophy and appropriate practice.

One issue is the quantity and variety of typical preschool type activities in a Kohanga Reo setting. The range of equipment that is available, or used, may be minimal (Douglas and Douglas 1983; Bennett, 1985). This is because value is placed on people and interactions rather than on things and purpose made expensive equipment. For example it is reported that some:

"Kaitiaki speak with scorn of Pakeha institutions for preschools with their structured programmes, masses of equipment ... that's not natural" (Dasler, 1982, p.39)

Alternatively, it has been argued from the parents point of view that preschool activity set-ups typical of the kindergarten, playcentre, and childcare programme, can be important if they are to feel that their children are getting a good early education:

"Some parents get a bit edgy at the lack of pre-school 'equipment'. They feel their children may miss out, because of the bare surroundings, emphasis on natural materials and no toys, and that they many not be well prepared for school" (Tu Tangata, 1986, p. 11).

According to the international literature on child development, Douglas and Douglas (1983) argue that Te Kohanga Reo seems to provide a "restricted play environment" that does not promote all aspects of children's development They caution Kohanga Reo whanau to be careful not to do this.

A second issue is the style of teaching. According to an article in Tu Tangata (1986) there can be comparatively little emphasis placed on children's spontaneous learning in the context of interactions with peers and play situations in some Kohanga Reo. Children tend to be taught Maori in a repetitive and rote manner. It has been suggested that in the long-term such methods of teaching could result in children who are passive, non-experimental, and lack initiative (Douglas & Douglas, 1983). However, other researchers have pointed out that it is much too early to make conclusions such as these. Te Kohanga Reo are a relatively new child care education option and the movement is still developing. Research evidence does not show that any one curicula method is better (Smith and Swain, 1988). Furthermore, Bennett (1985) mentions that an emphasis on rote learning is consistent with the 'prodigious feats of memory' usual in pre-European settlement times.



A third issue is that of teacher qualification. Research has shown that trained teachers are critical for ensuring good-quality child care education. Paper qualifications, obtained through a training course can raise the professionalism of the work for staff which could ultimately benefit families and communities. Qualifications serve the purpose of indicating what knowledge and skills teachers have. This can be useful information in the process of selecting suitable teachers and planning the on-going development of teachers. In Te Kohanga Reo preference is often given to two personal qualifications over formal qualifications: age (over 35 years) and language fluency (native Maori speaker). The Government Review Team (1988) reports that the general belief is that teachers need only be fluent in te reo to provide the input basic to Te Kohanga Reo kaupapa. Tawhiwhirangi (1989) argues that it is important for fluent speakers to be working with children and families because otherwise the "more powerful English language will take over".

A fourth issue is the kind of setting that is best for a Kohanga Reo. This issue has arisen out of discussion on how best to speed up the growth of numbers of Te Kohanga Reo centres. Tawhiwhirangi (1989) has argued that home-based would save costs and speed up the process as compared to building or renting rooms for more centres. She has also suggested that Kohanga Reo should be Marae based because otherwise children may develop more aroha (love) for other (pakeha) institutions and not look after their Marae when they are older. A problem of Marae based and home-based Kohanga Reo however, is the ability to assure minimum health and safety standards, as defined by government early childhood centre licensing regulation. For example, on the Marae it would be inappropriate to give children individual bedding and cots when the usual practice is to gather together on mattresses on the floor to sleep.



Carrying out this project: Research issues

This research has been done largely from a Pakeha, university based perspective. We feel it is important to explain this, the process, and the reasons why.

From the start of her research on the question of quality in early childhood education and care, Sarah a pakeha ex-kindergarten teacher post-graduate student, wanted to include at least two Kohanga Reo in her sample of different early childhood services. She was informed by a university Maori kaiarahi and some people at the local trust training branch of the National Te Kohanga Reo Trust that little research had been done on Te Kohanga Reo and that such research could be difficult to carry out. Had she opted to focus only on kindergarten, playcentre, and childcare centres this would have been devaluing Te Kohanga Reo as a legitimate part of the early education sector. She considered it important that Kohanga Reo be part of the study and that the quality of Kohanga Reo be examined specifically from a cultural perspective.

Karina, a Maori women, with involvement in Te Kohanga Reo as a parent and through her husband's involvement in the local trust training branch, was interested in the project. Karina worked with Sarah to assist in making contacts with Te Kohanga Reo whanau and to collect data.

Obtaining permission to study and for the collection of information from parents and teachers proved to be considerably more time consuming and a much longer process than at the other types of services. One reason may have been that this was an academic study, which included rather than focused on Te Kohanga Reo. Suspicion of written communications and the questionnaire approach was felt. Karina tried to communicate through her personal involvements in both Kohanga Reo the we were genuinely interested in Kohanga Reo as a distinctive and Maori early childhood service. Another reason is that the Kohanga Reo came into the project after the methodology had been developed and was being implemented in the other types of centres. There had been comparatively less consultation with Kohanga Reo leaders on initial decisions about the research aims and design. An alternative to this top-down methodological approach, would have been a bottom-up methodology to secure greater commitment and interest in the research.

We acknowledge these problems in writing and presenting this paper. We hope that this acknowledgement will provide some insights and useful guidance for others who wish to study Te Kohanga Reo.



METHOD

Sample

Permission to carry out this research was first sought through the local branch of the National Te Kohanga Reo Trust. The district representative informed the other South Island branches.

Copies of a panui (pamphlet) outlining the nature of the project and a written mihi by the researchers was sent to the secretary of the whanau at four Kohanga Reo. This was followed by telephone calls to the secretary and kaiako. It took some months to negotiate permission for study at two Kohanga whose secretaries had indicated during preliminary conversations with Karina that they would probably be able to and likely to participate. The two Kohanga Reo will hereafter be referred to as "K-Ra" and "K-Rb" to help to prevent their identification.

At K-Ra the panul and discussion about the study was carried over to a second whanau meeting a month later. This next meeting was postponed because many of the whanau members were out of town attending a tangi (funeral). About seven weeks after the panul was initially sent, participation in the study was agreed upon by the whanau committee. A letter of confirmation was to be sent to us. Karina contacted the secretary a couple of weeks later when the letter did not arrive and it appeared that they were instead waiting for us to say when we would be starting.

When we first contacted the secretary at K-Rb she explained that it was in semirecess and running only one day a week by the parents until their new teacher started in a few weeks time. We were advised to wait until the new teacher had settled in before making further approaches. Copies of the panui and an enclosing letter about the project were later sent to the secretary, and a follow-up telephone call confirmed the willingness of the whanau and teacher to participate.

DESCRIPTION OF THE KOHANGA REO

K-Ra is located in a central city area, in a converted family home building. The children are divided into two classes, one comprising of infants and toddlers and the other of over two-year-olds). A teacher is responsible for each group. One teacher is a fluent speaker of Maori and the other speaks Maori but does not regard herself as fluent. A few parents assist on a part-time basis in areas such as cooking and cleaning. There is a hard core of parents (about five to six) who attend whanau meetings and respond to needs for assistance. The roll varies from between 18 to 25 children a week; some are part-time attenders and others full-time five days a week.

K-Rb is located in a semi-rural area at a Marae. There appears to be a high rate of unemployment in this area. Many parents are able to give time to be and help at K-Rb. The teachers and her one assistant (kaiawhina) are not fluent speakers of Maori and both English and Maori is spoken with an emphasis on Maori. There does not appear to be kaumatua participation in the programme but the elders of the Marae maintain a general interest in it. The kaiawhina runs a mini-bus service so parents need not make the trip. Approximately 17 children were enrolled. Usually only about three-quarters of the number of enrolled children are in attendance at any one time. K-Rb is open three and a half days a week.



TEACHERS

Two (of the three) teachers participated in this study. A teacher at K-Ra had reserved thoughts about this study and sharing what she was doing in Te Kohanga Reo. The two teachers, one from each Kohanga Reo, who participated in the study, worked an average of 27 hours a week (Std Dev. 4.24). They were both Maori, aged over 35 years, mothers, with no formal training in early education and care, and no high school qualifications.

FAMILY AND PARENT CHARACTERISTICS

A total of twelve families participated, eight from K-Ra and four from K-Rb. Their children had been attending for a mean of 21.33 months (Std Dev. 17.57). The majority of children were described as Maori (83%), one as a Pacific Islander and one as Pakeha.

Half of the families were nuclear two parents families. One family was an extended family, with grandparents in the same household and regarded as playing a central role in child raising. Five families were single-parent families. In all families though, it was the mothers who seemed to hold the major responsibility for child care, as they stated this in response to a question on the questionnaire and they were the ones who completed the questionnaire. Most mothers (N = 10) were engaged in outside-of-the-home employment or tertiary study for part or all of the time that their children were at Kohanga. Some mothers (N = 5) used the time that their children were at Kohanga to participate in leisure activities outside of their home or to take a break at home. Half of the mothers (N = 6) also chose to stay at their Kohanga Reo at times.

At least five of the families lived on considerably less than the average income in New Zealand, with a gross income of between \$10,000 - \$20,000 in the last year. Three families had an income of between \$20,000 and \$30,000 in contrast to one family that reported an income of \$50,000 plus. Three mothers declined to state their family income.

Four out of twelve mothers did not hold any high school qualification. Most mothers (N=9) did not have a post-school qualification. Two mothers held tertiary-level diplomas or degrees and one held a trade certificate.

The majority of families (N = 10, 83%) relied only on their Kohanga Reo for providing early education and care. One child attended a Tongan Language Nest, and a mother took her two children to a playcentre one morning a week because she was a supervisor there.



Procedure

RESEARCH QUESTIONS

This paper addresses the following research questions:

- 1. What are parents impressions of their Kohanga Reo?
- (a) What do they like most about their Kohanga Reo?
- (b) What changes or improvements would they like?
- 2. What goals and principles of early education and care do parents and teachers expect their Kohanga Reo to meet?
- 3. What do parents and teachers generally focus on in appraising the quality of Kohanga Reo?
- 4. How important are various research derived indicators of good-quality for parents and teachers in the context of Te Kohanga Reo kaupapa?
- 5. How well do the Kohanga Reo met each of these indicators of good-quality as judged by parents and teachers?

QUESTIONNAIRE

Two questionnaires, one for teachers and one for parents, were prepared as part of the larger study of "Quality in Early Childhood Centres". The questionnaires were modified for Te Kohanga Reo in two ways. Some of the language was changed to improve the clarity and meaningfulness of the questions and some of the words and phrases were changed to te reo Maori.

The questionnaires were long (ten typewritten pages) and usually took between 45 minutes to one hour to complete, depending upon the length and frequency of discussions with the researcher(s) about the intention of the questions or about an answer to a question. The first two pages of both questionnaires contained both open-ended questions and questions which asked people to indicate their preferences from a variety of listed choices. The bulk of the questionnaire asked people to rate items related to goals and indicators of good-quality by simply placing a circle around an appropriate number or score. The last page asked parents and teachers for some brief details about themselves (for example, their education and how long they have been at Te Kohanga Reo).

DATA COLLECTION AND ANALYSIS

Approaches to data collection varied slightly between the Kohanga Reo. This was mainly because of differences in how the two Kohanga Reo whanau regarded their involvement, their relationship with us, and because we wanted to cause as little actual disruption as possible in gathering data that would be fruitful from a research point of view.



At K-Ra a whanau meeting was arranged at which it was agreed that one of us, Sarah, would discuss the study further, distribute the questionnaires, and be on hand to answer queries which people might have as they individually work through the questionnaire. Four parents came to this meeting; a disappointing turnout for us and the secretary of the whanau committee. Informal feedback suggested that it may have been better if Karina or a Maori person had gone instead of Sarah as the parents had interpreted her presence as being for the purpose of "keeping an eye on us". Karina attempted to set up a time for another whanau meeting with the secretary but it was difficult to find a time that was convenient to most members of the whanau. After a few weeks of discussions to sort out a time, Karina came up with the idea that perhaps it would be better if she spent some whole days at K-Ra to catch parents as they came and went, and to free any parents who were helping in the Kohanga to complete a questionnaire. Karina spent about a week doing this. At the end of the week she felt as if her requests for completed questionnaires had started to take the form of nagging. A similar reaction was encountered in K-Rb. (This was a good learning experience for us, as explained on page earlier).

At K-Rb, a parent volunteered at a whanau meeting when participation in the study was first discussed, to take responsibility for distributing the questionnaires. Karina had said that she would like to do this herself in the same way that she had done in K-Ra but the whanau committee agreed with the parent that it would be unnecessary for her to make daily trips out. Two weeks later Karina phoned and was told that the questionnaires had not yet been distributed. Karina phoned again, after discussion with Sarah, and negotiated to spend a couple of days at K-Rb to personally approach parents and collect completed questionnaires.

At K-Ra Karina gave koha of large children's story books and her time in assisting with the children. At K-Rb Karina gave practical assistance in helping with the children and became involved in providing advice and guidance to the whanau who were attompting to write a charter as required by the Ministry of Education.

The personal approach to handing out and following-up questionnaires helped to get a slightly higher response rate than might have otherwise been possible. We also became aware of comprehension problems in some of the terminology used in the questionnaire. For example, one parent turned to the teacher and asked whether they had a "programme" and what a programme was. The personal approach meant that Karina was usually on hand or readily available to provide explanations and any clarifications.

Parent and teacher answers to the open-ended questions were analysed by listing their various responses, looking to see how many others made the same responses, and categorising responses that were the same. Answers on rating questions were analyzed using a statistical computer package SSPSx to calculate the means and standard devisions.



FINDINGS

Parents impressions about their Kohanga Reo

(A) ASPECTS THEY REALLY LIKE

Parents described a number of aspects about their Kohanga Reo which they found appealing. Their descriptions are summarized in Table 2.

The location of K-Rb appealed to all K-Rb parents, and some also listed that they liked it because it operated in the Marae and they felt close to their grandparents who were buried there. Two parents from K-Ra stated that the opening hours and the flexibility of how they could use the hours suited them.

More parents at K-Rb compared with K-Ra made positive statements relating to the nature of early care and education provided. Most parents at both Te Kohanga Reo praised the emphasis on teaching and learning of the Maori language and culture. Only one parent (at K-Ra) praised the quality of early education care. Most parents, however, stated that they really liked the social environment and atmosphere of warmth and friendship of their Kohanga.

TABLE 1. Parents' Statements On What They Like About Their Kohanga Reo

K-Ra DEMOGRAPHIO	K-Rb			
	4	Location		
	2	Marae based		
	1	Kaumatua buried in grounds		
ADMINISTRATION				
1		Hours are suitable		
1		Informal "you don't have to get your child here		
·		by a certain time everyday"		
PROGRAMME				
1		Quality of early education and care		
	1	Natural resources used in activities		
3	1	Children learn culture, reo, and waiata		
	3	Maori language is always used		
SOCIAL ENVIRONMENT				
2		Relaxed atmosphere		
3	2	Feels like home ("sense of belonging", "caring		
-		atmosphere")		
2	2	Children make friends		
1		Opportunities for parents to meet others		
4		Kohanga Reo provides an extended family		
3		Warm friendly teachers		
1		Dedicated teachers ("not just interested in wages")		



(B) THE CHANGES AND IMPROVEMENTS PARENTS WOULD LIKE

Ten parents mentioned at least one need for change or an improvement that they would like to see in the service or programme of their Kohanga Reo. These are summarized in Table 2 below. Parents concerns came under the areas of: administration, teachers, physical environment, programme, and whanau involvement.

Funding and financial management was mentioned as a concern at K-Ra. One parent said that the instability of the Kohanga Reo affected her and other families. Examples of this instability was the recent challenge of operating without a teacher and relying on parent help, and now being faced with the need to develop a charter to secure government funding:

"We face major problems which are almost insurmountable, however we stumble along until the next one".

A parent at K-Ra mentioned the need for a policy to be developed and made known to all parents on how they should react to a child other than their own who misbehaves:

"The most difficult situation occurs when a disruptive child's parent is present but does not point out the unacceptable behaviour of their child".

Four different parents expressed concerns relating to the need for staff training in child education or changes to the way in which teachers interact with the children. For example one parent suggested that teachers should be trained so that they:

"... know how long children can sit still and learn in a formal way".

The concern for teacher training seems to be tied in with the range of concerns that were expressed at K-Ra about the children's programme and teaching approaches and at K-Rb about the whanau learning programme.

Finance and staff training could be factors possibly affecting aspects of the physical environment which a few parents suggested improvements on.

At K-Ra the programme appeared to be of greater concern to the parents than at K-Rb, on the basis of the number of parents who gave suggestions or made comments on the need for improvements in organization and content. The lack of activities or range of activities was a concern amongst some parents as was the appropriateness of activities, for example:

"Especially the older ones get bored without specific activities".

The emphasis on parent involvement in the daily programme may mean that sometimes the children miss out on attention or adequate supervision. A pertinent point made by one parent was:

"When there are more than three or four adults they all talk together and the children run wild".

At both K-Ra and K-Rb some parents suggested that more parents and whanau members (other than the "hard core" who were usually always giving their time or participating) could become more involved in helping out in the daily programme and running of their Kohanga Reo.



TABLE 2.

Parents' Suggestions for Improvements Needed in their Kohanga Reo

<u>K-Ra</u>	K-Rb				
ADMINISTRATION					
1		Need expert advice on financial matters			
1		More funding			
	1	Instability of the Kohanga Reo			
1		Policy needed on how parents should manage			
		the behaviour of other children			
TEACHERS					
2	1	Need teachers trained in early education			
	1	Teachers needs to be more motherly and even-handed			
PHYSICAL ENVIRONMENT					
2		More rooms, facilities, to cater for children			
1	1	Need more toys and equipment			
PROGRAMME					
1		More organized programme			
1		More flexible programme			
1		More variety in daily activities			
2		More learning programmes for over four-year-			
		old children and less play			
1		Encourage pro-social behaviour (e.g. manners, sharing)			
1		Children should always be supervised			
	1	Relaxed Maori conversation among whanau			
		instead of lessons			
	2	Total whanau involvement in learning te reo			
		alongside the children			
WHANAU INVOLVEMENT					
	1	Need Kaumatua support			
	1	More whanau support to reduce committee workload			
1		More parent participation to help in the programme			
1		Whanau needs to be more supportive of parents			
		who "have problems", "are working and can't			
		fully participate"			

Goals and principles of Te Kohanga Reo

Parents and teachers were asked to rate the importance of different goals and principles of Te Kohanga Reo programmes. Table 3. shows a range of goals that were rated as very important and three goals only that were as slightly less important.

The two most important goals, on which parents and teachers all agreed on, were:

- (i) the promotion of te reo rangatira and nga tikanga,
- (ii) providing a programme that recognizes children's developmental differences including their interests and individual learning styles.

The next two most highly rated goals were to do with meeting children's socialemotional needs.



It is interesting that two seemingly incompatible goals were rated highly, namely: promoting normative behaviour (i.e. fostering compliance with adult/group expectations) and encouraging independence and self-reliance in children. The social compliance goal was rated slightly higher though, than the individualism goal. The fostering of intellectual abilities and the teaching of pre-school preparation skills (such as writing one's name) were rated as comparatively less important to goals of promoting social, cultural, and language development. The inclusion or teaching of cultures and languages other than Maori was rated on average as the least important goal. The standard deviation for this item, however, indicates a wide range in opinion about its importance.

TABLE 3.

The Means and Standard Deviations of Parent/Teacher Combined Ratings of the Importance of Various Goals for Te Kohanga Reo Programmes

 $\overline{(4 = \text{very important}, 3 = \text{important}, 2 = \text{moderately important}, 1 = \text{not important})}$

Promote Maori cultural/language development	X = 4.00 (Std.Dev. 0)
Provide a programme that recognizes	
children's developmental differences	X = 4.00 (Std.Dev. 0)
Provide warm loving care	X = 3.93 (Std.Dev. 0.27)
Provide a safe and secure environment	X = 3.93 (Std.Dev. 0.27)
Promote development of self-confidence	X = 3.64 (Std.Dev. 0.49)
Encourage peer relationships	X = 3.64 (Std.Dev. 0.63)
Promote normative behaviour	X = 3.64 (Std.Dev. 0.63)
Meet children's individual needs	X = 3.64 (Std.Dev. 0.50)
Promote aesthetic development	X = 3.64 (Std.Dev. 0.50)
Promote language development	X = 3.57 (Std.Dev. 0.51)
Encourage independence and self-reliance	X = 3.43 (Std.Dev. 0.76)
Help children to relate to adults	X = 3.43 (Std.Dev. 0.76)
Work in partnership with parents	X = 3.36 (Std.Dev. 1.01)
Promote physical skill development	X = 3.29 (Std.Dev. 0.73)
Entertain children	X = 3.29 (Std.Dev. 0.73)
Promote conceptual/intellectual development	X = 3.29 (Std.Dev. 0.73)
Provide parents with support and friendship	X = 3.21 (Std.Dev. 0.89)
Promote moral development	X = 3.14 (Std.Dev. 1.03)
Parent education about child-rearing	X = 3.00 (Std.Dev. 0.96)
Teach pre-school skills	X = 2.86 (Std.Dev. 0.95)
Promote learning of other culture(s) and	
languages	X = 2.79 (Std.Dev. 1.05)



Parent and teacher beliefs on what indicates quality in Te Kohanga Reo

Two types of questions on good-quality child care education in the context of Te Kohanga Reo were asked. This section presents responses to the first question which asked parents and teachers to define and describe in their own words what they considered were the key characteristics of a good-quality early childhood centre.

The parents descriptions of good-quality Kohanga Reo are summarized in Table 4. Parents emphasised factors for ensuring:

- (i) children's happiness,
- (ii) a good-quality programme (Maori language teaching)
- (ii) whanau/community involvement (specifically in terms of securing the co-operation and commitment of members of the whanau).

The teachers at each Kohanga Reo both referred to parents and family as being central to a good-quality centre. One teacher also stated "he whare pai" (a good building), "tamariki" (children), and "wahi takaro pai mo nga" (good play for all).

TABLE 4.

Parents Opinions On Factors That Indicate Good-Quality Te Kohanga Reo

NUMBER OF PARENTS

CHILDREN'S HAPPINESS

- 6 The children are happy
- 4 An atmosphere of aroha (love)
- 2 A schedule of daily routines is followed
- No physical punishment or threat of using it
- 1 Tasty kai (food)

TEACHERS

- 4 Personal qualities of the teachers
- 1 Teacher has status as an elder
- 1 Trained teacher

PROGRAMME

- 9 Maori language is taught and emphasised
- 3 Teaching of traditional skills, knowledge (e.g. waiata, poi)
- 2 Supports children individual learning needs
- 1 Involved adults ("do not just sit around talking together)
- 1 Children can choose their own activities
- 1 Prepares 4 year olds for school (e.g. "taught to be independent, to tie own shoe laces")



PHYSICAL ENVIRONMENT

- 1 Layout of space
- 1 Quality of equipment
- 1 Mixture of quiet and noisy areas

WHANAU/COMMUNITY INVOLVEMENT

- 6 Whanau works together (has the same aims)
- 2 Whanau provides parent support (understanding, sympathy)
- 1 Supported by kaumatua
- 1 Interest shown by community volunteers

Parent and teacher ratings of the importance of various components of good-quality child care education suggested in the research literature

The section presents responses to the second question asked. This question gave parents and teachers a set of pre-determined items derived from the research literature and asked them to indicate the importance of each for ensuring good quality child care education in Te Kohanga Reo using a rating scale of 4 (very important) to 1 (not important).

Table 5. shows a summary of the items and the means and standard deviations of teacher and parent combined ratings of the importance of these. Two criteria were rated as very important by everyone:

- (i) teachers show children they care about them, and,
- (ii) teachers are responsive to children.

A number of other criteria relating mostly to children's social-emotional needs, physical needs including health and hygiene, and play needs were rated high in importance. The items rated as being of least importance were: qualified teachers, teacher professionalism, a planned written programme, and home visiting.

It should be noted that parents and teachers rated centre characteristics (namely: qualified staff, group size, staff:child ratio, staff stability) which research has shown to be strongly related to the quality of programmes for children as less important on average than other (presumably more cultural and social based) characteristics. The majority of empirical items of good quality were still rated however as important by the parents and teachers.



TABLE 5.

Parents' and Teachers' Beliefs on the Importance of Various Items of Good-Quality Early Education and Care and their Ratings of their Kohanga Reo on these

	# IMPORTANCE	CAA DATING
MOST IMPORTANT	• IMPORTANCI	MEAN (S.D.)
MOST IMPORTANT	4.00 (.00)	2.93 (.27)
Teachers show children they care about them	4.00 (.00)	2.77 (.44)
Teachers are responsive to children	3.93 (.28)	2.77 (.44)
Sensitive settling-in process	3.93 (.27)	2.85 (.38)
Children's physical needs met	3.93 (.27)	2.31 (.48)
Stimulating/interesting play activities	3.93 (.27)	2.50 (.67)
Developmentally appropriate activities	3.93 (.27)	2.85 (.38)
Teachers are warm and caring people	3.93 (.27)	3.00 (.00)
Clean building, facilities, equipment, toys	3.93 (.27)	3.00 (.00)
Personal hygiene rules taught Children's health needs taken into account	3.93 (.27)	2.93 (.28)
	3.93 (.28)	3.00 (.00)
Parents contribute to decision-making Non-sexist behaviour and language	3.92 (.28)	2.58 (.67)
	3.86 (.36)	2.77 (.44)
Individual, small and large group activities	3.86 (.36)	2.69 (.48)
Family values and customs supported	3.86 (.36)	2.62 (.65)
Teachers work together as a team	3.83.(.39)	2.64 (.51)
Parent contact with centre encouraged	3.79 (.58)	2.75 (.45)
Biculturalism promoted	3.79.(.43)	2.92 (.28)
Teachers play with the children	3.77 (.44)	2.20 (.79)
High ratio of teachers to tamariki	3.77 (.60)	3.00 (.00)
Teachers model good health and hygiene	3.71 (.47)	2.58 (.67)
Children supervised at all times	3.71 (.47)	2.69 (.63)
Teachers experienced with young children Awareness of different cultures promoted	3.71 (.47)	2.54 (.66)
	3.69 (.63)	2.42 (.52)
Toys and equipment safe and maintained	3.67 (.49)	2.08 (.79)
Environment allows special needs children to	3.07 (143)	2.00 (./ 5)
fully participate Outside professional assistance used	3.67 (.49)	2.46 (.69)
Balance indoor and outdoor activities	3.64 (.63)	2.31 (.75)
Regular outings and excursions	3.64 (.63)	2.92 (.28)
Provision for sick children	3.64 (.93)	2.25 (.99)
Parents and families made welcome	3.64 (.63)	2.75 (.45)
Balance child and staff initiated activities	3.62 (.65)	2.42 (.79)
Parents regarded as joint partners	3.62 (.51)	2.42 (.90)
Parents informed of philosophy and practices	3.58 (.67)	1.92 (.79)
	3.57 (.85)	2.77 (.60)
Notification of infections/diseases IMPORTANT	3.37 (.03)	2.77 (100)
	3.46 (.66)	2.80 (.63)
Community members participate in programme Home like pleasant atmosphere	3.43 (.76)	2.54 (.52)
Sufficient toys, equipment and resources	3.43 (.94)	2.23 (.84)
	3.29 (.83)	2.85 (.38)
Peer group stability	3.46 (.69)	1.64 (.67)
Aims based on child and family needs	3.39 (.77)	1.50 (.67)
Teachers do formative programme evaluations	3.39 (.96)	1.80 (.79)
Teachers undertake refresher training	3.36 (1.01)	1.58 (.67)
Physical environment supports teachers needs	3.36 (.84)	2.62 (.65)
Friendship and support for parents	3.33 (.65)	2.46 (.82)
Stability in staffing	3.31 (.95)	2.55 (.69)
Group size not too big	3.29 (.83)	2.54 (.66)
Clear pathways between activity areas		2.39 (.96)
Excessive punishment not used	3.23 (1.30)	1.85 (.90)
Reports on child activities and progress	3.22 (.98)	(טכי) כסיו



Supervisor/Teachers provides good leadership	3.17 (.94)	2.09 (.83)
Parent education on child-rearing provided	3.15 (.90)	1.83 (.84)
Teachers have parenthood experience	3.14 (1.17)	3.00 (.00)
Physical environment supports parent needs	3.00 (1.00)	2.25 (.75)
MODERATELY IMPORTANT		
Qualified teachers	2.86 (1.23)	1.58 (.79)
Written schedule of routines and activities	2.75 (1.06)	1.58 (.52)
Professionalism considered important	2.64 (1.28)	2.09 (.94)
Teachers visit children and families at home	1.92 (1.08)	1.58 (.79)

^{* 4 =} very important, 3 = important, 2 = moderately important, 1 = not important.

Parent and teacher ratings of the quality of their Kohanga Reo

Parent and teacher combined ratings of how well they felt their own Kohanga Reo met each of the criteria of good-quality are shown alongside the importance ratings in Table 5. There appears to be minimal disagreement among parents and teachers in their ratings of quality on each criteria (Standard Deviations ranging from 0 to .99, with most being below .5).

Only five criteria were rated as being fully met in both Kohanga Reo (fully met, Mean = 3):

- (i) teachers model good health and hygiene,
- (ii) children are taught good personal hygiene rules,
- (iii) teachers are experienced through being parents themselves,
- (iv) parents contribute to decision-making,
- (v) the building, facilities, equipment, and toys are kept clean.

Out of the criteria rated as very important or close to (Mean scores 4 to 3.92), it seems that parents and teachers felt that:

- (i) the teachers could be more responsive to the children,
- (ii) the process for settling new children into the programme could be more sensitive,
- (iii) the play activities could be more interesting and developmentally appropriate,
- (iv) there could be greater emphasis on non-sexist language and behaviour.



^{**} 3 = met, 2 = partially met, 1 = not met.

The criteria that were rated as being important and moderately important but which were perceived to be around the partially met mark in reality (i.e. 2.5 to 1.5) were:

- the ratio of staff to children,

- the safety and maintenance of toys and equipment,

- provision for special needs children,

- use of professional assistance/services,

- provisions for sick children,

- balance of indoor and outdoor activities,

balance of staff initiated and child initiated activities,

- parent-teacher partnership,

- parents informed of philosophy and practices,

- adequacy of play resources,

- programme aims developed from an understanding of child and family needs,
- formative evaluations of the programme carried out,

- low turn-over of staff,

- excessive punishment is not used,

- regular reports to parents,

- good leadership provided by the teacher in-charge,

- parent education on child-rearing,

- physical environment supports parent needs,

- qualified staff,

- written schedule of routines and activities,
- teacher professionalism.

Discussion

Of the 612 Kohanga Reo in New Zealand the results of studying two South Island ones are presented. Te Kohanga Reo has a distinctive quality - being predicated on a cultural basis different to traditional pakeha playcentre, kindergarten, and childcare services. This is particularly illustrated by parents and teachers ratings of the relative importance of the various components of good-quality child care education supported in the literature. Many of the empirical indicators of good-quality child care education are important in Kohanga Reo but excellence tends to be defined more strongly in terms of aspects related to Maori aspirations, culture, and language.

People are considered to be the greatest resource and influence on the quality of Te Kohanga Reo. The major cultural dimensions of quality in Kohanga seem to be an emphasis on:

- (i) learning and teaching Maori language,
- (ii) human relationships and socio-emotional well-being rather than on equipment and facilities,
- (iii) the teachers' personal qualities rather than on professionalism and their educational record,
- (iv) parents as learners and parent involvement at both programme and administration levels,
- (v) the development of a whanau system within the Te Kohanga Reo setting, including children, families, teachers, and kaumatua.



It appears that parents (in particular) and teachers do not want Kohanga Reo to assume the role of preparing children specifically for entry to school (for example: teaching pre-academic skills). Ensuring that children are immersed in te reo Maori and nga tikanga appears to be much more important for children and families and for the purposes of Kohanga Reo. Nurturing children's cultural knowledge, identity and pride in being Maori seems to be a much more valued path to ensuring children's success at school and as members of society.

Clearly value is placed on working as whanau; on parent involvement as learners, administrators and helpers to the teachers. However, the data suggests that greater parent commitment and involvement is needed and wanted. The Government Review Team (1988) noted that whanau development can not be facilitated unless a large number of parents and others associated with a Kohanga Reo actively share the responsibility.

One way of achieving greater whanau involvement could be through techniques to increase parents enjoyment and motivation for learning alongside their children. For example, a parent suggested that instead of "lessons" she would prefer more relaxed conversation. A reality of today's society is that some parents simply haven't the time to give, and this is an issue which may increasingly threaten the principles of whanau development and whanau based operation.

It is important that teachers are fluent in te reo Maori and nga tikanga Maori. The degree to which the kaupapa of Te Kohanga Reo can be realised depends on this.

Comparatively little importance was placed on staff training and formal qualifications but the research literature suggests that the personal (and cultural) qualities of teachers alone can not guarantee a good-quality programme. Teacher training, and other teacher variables such as team-work and professional behaviour, can help to ensure the standard of programme quality. Parents made fewest positive commerts on and made most suggestions for improvements in programme areas related to children's experiences. Parent and teacher ratings of the quality of their Kohanga Reo may have been higher had the teachers had specialized training.

The response of the two Kohanga Reo whanau was classic whakama (resistance and shyness) to research. It was difficult for us to communicate that we did not have a hidden agenda of making claims, making judgments, or inappropriate comparisons to other early childhood services, that would go against what the Kohanga Reo movement has been working to achieve. Only time, trust and the development of methodologies and ability to engage in research that is truly Maori research will help to overcome this.

Problems of using traditional academic research approaches were encountered. The questionnaire method, although personalized somewhat by the presence and availability of a researcher to discuss questions and to assist (if asked), was found to not be a very rewarding process or an attractive technique for parents and teachers. The methodology of this study could be refined and the research questions investigated in a larger more diverse sample of Kohanga Reo. Future studies could document and evaluate progress towards higher quality from both cultural and educational perspectives, and examine relationships between government licensing regulations and Te Kohanga Reo kaupapa and practices.



Conclusion

The data presented here has statistically and qualitatively shown that there is a high degree of congruency between people's aspirations and the pedagogy of Te Kohanga Reo. Te Kohanga Reo are the preferred early childhood service option even though parents may not be totally satisfied with some aspects and some problems are noted.

Te Kohanga Reo does provide parents with a genuine choice of early childhood service. Parents and teachers have clear views on what constitutes good-quality and the personal/cultural qualities of the teachers and the programmes seem to be, as important, and more important than many of the traditional indicators of good-quality early childhood services.

Greater whanau involvement and positive attainment of the other attributes that define excellence within the system of care, education and Maori pedagogy preferred by parents and teachers is possible. Parents comments and ratings suggest that teacher behaviour, knowledge, and professionalism have a major influence on quality. The provision of culturally relevant in-service training opportunities about child development, child care, administration, and work with parents, for those who are unlikely (because of age or cost reasons) to do a preservice qualification course are essential.



References

- Bennett, J. (1985) Early Childhood Care and Education: Te Kohanga Reo. In Early Childhood Forum 1985: Keynote Papers. Wellington: Department of Education.
- Benton, R. (1979) Who Speaks Maori in New Zealand? Wellington: N.Z.C.E.R.
- Dasler, Y. (1982, 24 July) The Language Nest. *New Zealand Listener* (101), 2217, pp.38-40.
- Douglas, E.M.K. and Douglas, R.B. (1983, May) Nga Kohanga Reo: A Salvage Programme For The Maori Language. Paper presented at the 53rd ANZAAS Congress, Perth.
- Edmonson, K. (1984) *Piritahi Te Kohanga Reo: Maoridom In Microcosm*. New Zealand: Carrington Technical Institute.
- Farquhar, S.E. (1990) Quality in early education and care: What do we mean? *Early Child Development and Care*, 64.
- Fenwick, P., Norman, H. and Long, D. (1984) Attendance at Pre-school, Report No. 31. Wellington: Department of Education, Research and Statistics Division.
- Government Review Team (1988, November). *Te Kohanga Reo*. New Zealand: Government Print.
- Halkyard, H. (1983, October) Te Kohanga Reo A transformation. *Broadsheet, 13*, pp. 16-18.
- Ka'ai, T. (1990, January) Te Hiringa Taketake: Mai I Te Kohanga Reo Ki Te Kura. Thesis, University of Auckland.
- Ministry of Education (1989) *Maori Education Statistics*. Ministry of Education. Government Print: Wellington.
- Smith, A.B. and Swain, D. (1988) Childcare in New Zealand. New Zealand: Allen and Unwin.
- Tawhiwhirangi, I. (1989). Tino Rangatiratanga Unit Hui, Araiteuea Marae. July 18th. (Videotape).
- Tu Tangata (1986) Kohanga challenging pre-school Movement. Tu Tangata: *Maori News Magazine (29)*, 11 13.
- Walker, R.J. (1985) Cultural domination of taha Maori: The potential for radical transformation. In J.Codd, R. Harker, and R. Nash (Eds.) *Political Issues in New Zealand Education* (pp. 73 81). NZ: Dunmore Press.

PRESENTER'S NOTE:

The research here was carried out as part of a project on "Quality in Early Childhood Centres", funded under contract with the Ministry of Education.

Warmest thanks to the Kohanga Reo and their whanau who participated in this study.

A special thank you each to Russell Bishop, Noi Hudson, Mark Laws and Anne Smith for their support and advice.

