The development of a health education curriculum for primary schools in Solomon Islands

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University of Wollongong

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THE DEVELOPMENT OF A HEALTH EDUCATION CURRICULUM
FOR PRIMARY SCHOOLS IN SOLOMON ISLANDS.

VOLUME TWO

A thesis submitted in fulfilment of the requirements for the award of the degree

DOCTOR OF PHILOSOPHY

from

UNIVERSITY OF WOLLONGONG

by

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DEVELOPMENT, EVALUATION AND IMPLEMENTATION OF THE HEALTH EDUCATION CURRICULUM

(CONTINUED)
21. EVALUATING THE NEW HEALTH EDUCATION CURRICULUM.

It was necessary to make decisions regarding the development of this new curriculum continually, so evaluation was planned to occur in every phase of the development process. The underlying determinant of this need was my unsureness, because there were so many unusual circumstances surrounding this assignment, viz:

- a set of health problems, many of which were beyond my previous experience,

- the unfamiliar physical environment in which these health problems occurred,

- my lack of familiarity with the culture and customs of the rural people which had very important implications for the health program,

- physical, cultural and educational differences in the urban and rural environments,

- the varied nature of the teachers' knowledge and beliefs about health matters which depended largely on cultural influences and whether or not they had received any health lessons in their own school days and the nature of these lessons,

- the difficulty of preparing lessons "out of culture", i.e. an Australian writing lessons in Australia for Solomon Islands children.

All of the above circumstances prescribed the diverse nature of the evaluation process and the approach taken.
During the development of the curriculum, evaluation was effected through three broad questions:

1) Is the health and medical content accurate?
2) Are the lessons acceptable in the cultural context?
3) Is the teaching program educationally sound and acceptable to the classroom teachers and the Ministry of Education?

Feedback was obtained at every possible opportunity. Some feedback was obtained informally, such as in discussions with the curriculum officers and practising teachers, with persons with knowledge about particular health problems or the customs of different provinces, and observations during visits to villages and classrooms in Honiara, Guadalcanal and Malaita. At other times feedback was obtained more formally, through workshops and demonstration lessons, and from field tests and questionnaires.

1) Accuracy of the health and medical content.

The accuracy of health and medical facts and the suitability of intervention strategies used were checked in discussions with medical personnel, including WHO consultants in Honiara, Manila and Geneva, and national and ex-patriate staff at the Honiara General Hospital.

Advice was also sought from community health educators, lecturers at the School of Nursing, and clinic nurses, village aids and volunteers working in the provinces. On occasions when a variance of opinion was expressed, further discussions were necessary until a consensus of opinion was reached.
2) The cultural appropriateness of the lessons.

It was originally agreed that the national health education coordinator at the Curriculum Development Centre in Honiara would act as the consultant's national counterpart and co-writer of the teachers' manuals. This person was to be responsible for checking the lessons prepared by the consultant for cultural appropriateness and to make any necessary changes to the lesson notes.

While initially agreeing to assist in this way, this officer later was unwilling to carry out this task. Reasons for this reluctance were never clearly identified. However, as explained in chapter 9, possible reasons could have been lack of professional skills in health education, internal disputes about work load, or the refusal of the Aid agency to grant him a gratuity to top up his salary. Since it was on condition that a national co-writer be appointed to work with me that I initially accepted the task of developing this curriculum, the failure of this arrangement to work effectively was a devastating blow and made this task much more difficult.

Other methods of checking cultural aspects of the lessons had to be implemented, such as discussions with the community health educators and lecturers at the College of Higher Education, but this was laborious and far from satisfactory. The most useful feedback came from the workshop organised for the regional education officers (to be described in chapter 22) through discussions and questionnaires.
After my input into the curriculum had ceased in 1990, the health education panel members accepted responsibility for the final checking of the lessons when it can be assumed, but was not confirmed, that anything which not acceptable in the cultural context would have been corrected.

3) Evaluation of the teaching program.

Evaluation of the teaching program related to the appropriateness of objectives and content, effectiveness of teaching strategies, time allotment, equipment, materials, facilities and other factors important to program functioning. This included assessment of the teachers' manuals written to support the curriculum.

More specifically, progressive evaluation was directed towards the acceptance of the curriculum by the Solomon Islands government. This in turn depended upon the acceptance of the curriculum plan by the Primary Health Education Panel and the suitability of the manuals for practising teachers. To this end, evaluation centred on:

a) critical revue of the Scope and Sequence Chart by the Primary Health Education Panel until consensus was reached;

b) the general response of officials in the Ministry of Education, and when possible of parents and others in the community to the proposed curriculum.

c) preliminary lesson trials and later further field testing of the completed teachers' manuals to determine whether or not the lesson plans and the format of the manuals were acceptable to the teachers.
To determine the acceptability of the lessons and manuals by the classroom teachers, simple questionnaire sheets were prepared to determine whether:

1) the lesson objectives were appropriate,
2) the teachers' reference notes were adequate,
3) content and teaching strategies were suitable for urban and rural schools,
4) the lessons were too easy or too difficult for the nominated grade,
5) the lessons were too short or too long,
6) any difficulties were experienced obtaining the simple teaching aids and materials suggested,
7) any further assistance was required.

Another important aspect of evaluation of this new curriculum was the determination of changes which the health program brought about in the teachers, who in many cases are learning along with their students. It is universally recognised that the attitudes of teachers and the example they set is a significant determinant of the success or otherwise of a school health program. (This will be taken up again in chapter 22.2)

The method of trialling the lessons, the feedback obtained and the action taken is described in detail in the following sections.
21.1 SCHOOL VISITS.

While developing and progressively trialling the teaching program, it was considered important to work closely with the schools, the teachers and the students. However many difficulties were encountered attempting to put this into practice.

Firstly, as a WHO consultant and thus an official guest of the Solomon Islands government, it was made clear on arrival in the country that it was important to adhere to protocol. This meant that it was not appropriate to visit the national schools unofficially. Visits were organised by the Ministry of Education officer charged with this responsibility. It appeared that the national counterpart was either unwilling or unable to organise these visits, and accompanied me on only one occasion. (These restrictions did not apply to visits to private schools in Honiara.)

Secondly, apart from the schools within close range of Honiara, the schools were inaccessible. On Guadalcanal, many schools were hidden in plantations, there were no road maps, the roads were unmade and only heavy four-wheel drive vehicles would attempt to traverse them. Other schools were only accessible by canoe. Hence visits by a lone Australian lady were out of the question.

It was however considered necessary to visit as many schools as possible, so official visits were made to schools on Guadalcanal and Malaita.
I wished to see the schools as they really were, especially village schools, in order to establish a base-line for the development of the health curriculum.

However, the schools were notified in advance that a "health consultant" was to pay a visit, and it would appear that much effort was given by teachers and students alike to present a good healthy image. Classrooms were clean and tidy, the children beaming in clean and pressed uniforms, flowers decorated the classrooms, health posters decorated the walls, yams, pawpaws, bananas, and the like hung from the ceilings. But most of the students and many of the teachers seemed to be too shy and over-awed by the visit to answer questions.

Fortunately (for me), on one occasion the letters informing the headmasters of three schools of the forthcoming visit did not arrive, and the schools were seen in what is perhaps their true light - one excellent, the other two of a lesser standard. These were the most valuable visits.

One experience is worth reporting:

The headmaster took me to meet one of the male teachers. He was dressed in a tattered T-shirt and shorts which were filthy dirty. No shoes. Hair long, greasy and tangled. He was chewing betel nut which he spat out as I arrived. When introduced to me, he first blew his nose into the palm of his hand, flicked his hand vigorously, then with a beaming smile, held out this hand for me to shake.

This standard was reflected in the state of the classrooms and the playground and the general tone of the school. No health lessons were given at this school.
On this same tour, it was very gratifying to see another school with a health education program in operation (albeit mostly hygiene and simple lessons on nutrition). One young female teacher was apparently the instigator, and the environment of this school was a great credit to her.

Later in the project, requests were made to sit in a classroom when some of the newly written health lessons were being trialled, in order to observe first hand how the teachers used the lesson notes and also to observe the reactions of the children. Understandably many teachers refused to cooperate, pleading that they could not teach in front of the consultant. However some teachers cooperated and delightful lessons were observed which will be discussed later in this chapter.

A student training to be a primary teacher at the College of Higher Education agreed to try out some of the lessons during practice teaching at a school in Honiara. According to the lecturer who was supervising him, he was coping with the lessons extremely well. However the day I accompanied the supervisor, all the children stared at me and he found it very difficult to gain their attention.

FUTURE ACTION.

These experiences suggested that little was to be gained by putting so much stress on the teachers. It was better to get feedback from the lessons by requesting the teachers to give the lessons under normal teaching conditions and provide feedback by completing a short questionnaire.
Lesson trials were not only important to me as the writer, but also to members of the national primary health education panel who shouldered the responsibility for the curriculum. (The national counterpart was a member of this panel and he tended to refer to the "chairman" whenever a decision needed to be made.)

Of special importance were the preliminary lessons trials which were conducted before the writing of the manuals began in earnest. At this stage, it was necessary for the national panel to determine for themselves whether the approach being adopted was suitable. This feedback also provided guidelines for the continuation of the project.

Further trialling of the lessons in schools presented many problems. Originally, it was envisaged that trialling would be continuous, i.e. as lessons were prepared, they would be checked by the co-writer, then tried out in the schools to ascertain whether they were of the right standard, did not contravene local customs, were acceptable to the teachers and fulfilled the objectives, (as explained at the beginning of this chapter.) This however proved extremely difficult to implement.

Trials in a private school in Honiara were satisfactorily organised while I was in Solomon Islands. However reliance had to be placed on others to organise trials at other times and this proved to be unsatisfactory. Many requests for trials were ignored. Nevertheless, sufficient feedback was obtained during 1988 and 1989 from different sources to be a guide for editing of the manuals.
21.2 PRELIMINARY LESSON TRIALS.

The first trialling program was organised by members of the Health Panel when they met in November 1987. At this stage, sample lesson notes had been prepared according to the original terms of reference for the first assignment, as stated in chapter 2.3.

Lesson notes were sent to all the regional education officers in the provinces, seeking their cooperation. Four provinces agreed to become involved and ten different schools were selected to take part in the trials which were conducted during January and February 1988.

<table>
<thead>
<tr>
<th>PROVINCE</th>
<th>SCHOOLS</th>
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<tbody>
<tr>
<td>GUADALCANAL</td>
<td>Potau</td>
</tr>
<tr>
<td></td>
<td>KaeKae</td>
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<tr>
<td></td>
<td>Makina</td>
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<tr>
<td>MALAITA</td>
<td>Auki</td>
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<td>Alota'a</td>
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<td></td>
<td>Arabala</td>
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<td></td>
<td>Gwaidinale</td>
</tr>
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<td></td>
<td>Malu'u</td>
</tr>
<tr>
<td>MAKIRA/ULAWA</td>
<td>Naharahau</td>
</tr>
<tr>
<td>YSABEL</td>
<td>Jejevo</td>
</tr>
</tbody>
</table>

Of the 40 teachers involved, 15 were untrained, 5 claimed to be partly trained, 20 trained and of these 3 were school inspectors, also called multi-level trainers (MLTs). It is notable that responses to the questionnaire indicated that on the whole the younger untrained teachers had a better command of written English than the more senior trained teachers, no doubt reflecting the superior formal education received since the secondary curriculum was revised.
Twelve lessons were selected by the panel for trialling, two for each grade, as follows:

Grade 1. Clean teeth.
        Clean hair.

Grade 2. When should I wash my hands?
        Blowing my nose.

Grade 3. Cleaning beds.
        Breakfast and lunch for school children.

Grade 4. Head lice.
        Sneezing, coughing, spitting and nose blowing.

Grade 5. Immunization protects people from diseases.
        Malnutrition in children.

Grade 6. The importance of breast feeding.
        Dangers of bottle feeding.

The questionnaire sheet was designed to obtain general comments about the lessons, such as the adequacy of the background information provided for the teachers, clarity of the lesson notes, the response of the children to the activities suggested and the willingness and ability of the teachers to teach health if they were provided with assistance of this kind.

For this reason, each teacher was requested to complete only one feedback sheet, although two lessons were given. Specific comments about individual lessons however appeared in space provided for comments.

A summary of the feedback received follows. A sampling of the many comments received is included to give some indication of the varied responses and also in some cases the difficulty of interpreting the meaning being conveyed.
21.2.1 FEEDBACK FROM TEACHERS' QUESTIONNAIRE

1) Are the lesson steps clear?

<table>
<thead>
<tr>
<th>Grade</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Grade 2</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Grade 3</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Grade 4</td>
<td>5</td>
<td>0</td>
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<tr>
<td>Grade 5</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Grade 6</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

"The steps are very clear and are well understood. As a teacher we can add on some more informations to the lessons. Cleanliness is not a new thing to teach young children." (Grade 1, part-trained.)

"No I find it hard. The steps are not clear. They are quite hard for me to teach the children." (Grade 3, untrained)

"The steps was written down very clearly and it also an interest in it, because it talks mainly about our body or how to keep our body clean and healthy it also helps us from getting infections, lets say for instance, cough, sneeze and spitting." (Grade 4, untrained)

"The steps are clear, because when I followed them the children seemed to understand what the aim of each lesson is." (Grade 5, trained)

"This is very clear to follow. Probably there is more thought of the objectives as I found that children more self-explanatory when presenting these objectives. Consequently that was very good layout." (Grade 6, MLT)

2) Is there too much or not enough information for the teacher?

<table>
<thead>
<tr>
<th>Grade</th>
<th>Too much</th>
<th>Too little</th>
<th>Just right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Grade 2</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Grade 3</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Grade 4</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Grade 5</td>
<td>1(simplify)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Grade 6</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

"The information is just enough and suit for grade 1. As I teach it, its not too much because I just read the information notes and lecturing it to the pupils and we just demonstrate and discuss about the lessons." (Grade 1 trained)
"To myself I should say for the lower grades we teachers ourselves should put in more in explanation in our own mother tongue for the children to understand so I should say the information is enough." (Grade 2, untrained)

"There is enough information. It could be more interesting if we have some pictures to show the children. Town children this lesson OK, but bush children do not know many things."
(Grade 3, trained)

"To me as an untrained teacher I think it is too much," but on the other hand I think it is good to know these things, because it helps us to live healthy and not having any sickness at all". (Grade 4, untrained)

"The information paused on the way. The informations given in here is too much. 1/2 could be ferably enough. But generally speaking you have given what the teachers are feel they have nothing to do much. Too much in working especially your introductory questions. (Grade 6, MLT)

3) Is the lesson too easy or too hard to follow?

<table>
<thead>
<tr>
<th>Grade 1</th>
<th>Too easy</th>
<th>Too hard</th>
<th>Just right</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (for some)</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Grade 2</td>
<td>0</td>
<td>0</td>
<td>7</td>
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<td>Grade 3</td>
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<td>1</td>
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<td>Grade 4</td>
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<td>1</td>
<td>4</td>
</tr>
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<td>Grade 5</td>
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<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Grade 6</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

"The lesson is easy enough for us to follow if we get down to read and study it." (Grade 1, untrained)

"The lesson is quite hard to follow. I read it but hard for me to understand. There are some words which I do not understand." (Grade 3, untrained)

"The lessons is a bit hard, but I really found that it was interesting because I knew that it is good for you and also for all of us, because it keeps us to live healthy and not having any diseases". (Grade 4, untrained)

"The lessons is rather hard, due to in-availability of reference books, pictures and lesson materials. The children couldn't cope with lesson activities, maybe English language problem." (Grade 5, MLT)
"The lesson is really hard to follow when I find that there are not enough informations to follow."
(Grade 6, part-trained)

"The lesson generally easy to follow. This is what our teachers also would like. They only teach according to the steps or what is laid there for them. The aims of these lessons was really accumulate the objectives." (Grade 6, MLT)

4) Did the children find the lesson interesting?

<table>
<thead>
<tr>
<th>Grade</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Grade 2</td>
<td>7</td>
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<td>Grade 3</td>
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<td>1</td>
</tr>
<tr>
<td>Grade 5</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Grade 6</td>
<td>6 (but shy)</td>
<td>1</td>
</tr>
</tbody>
</table>

"Yes, as we come to the practical part of the lesson, the children themselves enjoyed it".
(Grade 1, trained)

"The children finds the lessons very interesting because the teacher may asked some children to act the lesson in front of the class such as scratching my head, rubbing my nose or blowing my nose, etc."
(Grade 2, untrained)

"The children really enjoyed the lessons especially when we refer to different varieties of foods we consume at home. A noisy situation arised in one of my lessons when a few children said they have rice all day for weeks at times when nothing else is available." (Grade 3, untrained)

"The children find the lesson interesting, but there are about three quarter of my class find the lesson to boaring to them. Some say that it is good for us to learn the healthy way." (Grade 4, untrained)

"The children had found the lesson more interesting. It all depend on how each teacher present it."
(Grade 5, trained)

"Especially with some lessons that children actually work on their own like making samples of them. lessons or activities that indicates only writing is the one that bored them. Just listen and afterwards copy down notes." (Grade 6, trained)
5) Do you think you would be able to teach HEALTH if the lessons were presented this way?

<table>
<thead>
<tr>
<th>Grade</th>
<th>Yes</th>
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</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Grade 2</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Grade 3</td>
<td>6</td>
<td>1 (too hard for me)</td>
</tr>
<tr>
<td>Grade 4</td>
<td>4</td>
<td>1 (can't get aids)</td>
</tr>
<tr>
<td>Grade 5</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Grade 6</td>
<td>6</td>
<td>1 (need more help)</td>
</tr>
</tbody>
</table>

"Yes, I would be very grateful to teach lessons like this because at the moment I used to miss out health lessons because there's no booklet with instructions which I can read to give me some ideas. This sort of information will be useful." (Grade 1, part-trained)

"If I tried my best, I can teach half way of it". (Grade 3, untrained)

"I feel confident when teaching these lessons and would be grateful if a syllabus for health is set out in the same format. This is because of the need we have in our schools nowadays for a stable program to follow concerning this subject". (Grade 5, trained)

"I would be really glad if all the lessons are prepared that way. I personally thought that it is really easy to present since the format was properly layout." (Grade 6, trained)

"I think it would give us some idea, understandings on how to present such topics on health rather than lecturing it." (Grade 6, trained)

Other significant comments.

Many comments appearing throughout the feedback sheets had implications for the development of the curriculum.

These related to:

1) difficulties experienced:

- Lessons needed too much preparation (especially when living far from the school).
- Preparation of aids - no instructions,
  - aids costly for teacher.
- Chalkboard pictures - difficult if you cannot draw.
  (One teacher reported that it took him 3 hours to copy pictures of a thin and fat boy on the board.)
- Words too difficult.  
  (A common complaint from untrained teachers.)
- Not enough time for the lessons. 
  (This possibly meant there was too much in some lessons for some teachers.)
- Not catering for individual differences. 
  (Only expressed by one trained teacher.)
- Different problems in towns and villages.

2) the need for:
- Lessons to be in a series.
- Book of lessons covering the year's course.
- Charts, pictures and other teaching aids.
- More time for the lessons.
- Glossary.
- Reference books.
- Briefing/ in-service training to introduce the new course.

These comments confirmed the accuracy of the guidelines already established. Some problems however could not be solved immediately, such as more time for lessons, which is determined by ministerial guidelines, and provision of aids which is dependent on funding.

Other comments were encouraging, others were critical of the lessons, as the following examples indicate.

1) Encouraging comments:
- Children liked the activities, especially acting.
- Outdoor activities keep children healthy.
- Children want more lessons in health.
- Lessons applied to everyone in the class.
2) Critical comments relating to:

a) lessons
   - Not enough left for the teacher to do.
     (Another: Good teachers can enrich lessons.)
   - More teaching ideas needed for follow-up.
   - Health should be integrated with other subjects.
   - Registered nurses should teach health.

b) customs
   - Baby feeding should be taught to mothers, not at school.
   - Questionnaire sheet about breast feeding was embarrassing for children.
   - Parents may be upset if schools teach about these things.

THE OUTCOME.

This feedback was assessed by the health education panel, as well as by myself. It was agreed that the format and content of the lessons were acceptable on the whole.

Authority was given to proceed with the preparation of the manuals for each primary grade in this manner, while keeping the language and teaching aids simple.

To help the teachers with little English to understand the content of the lesson as well as the teachers' reference notes, a glossary was to be prepared for each manual.
21.3 TRIALLING MANUALS 1 AND 2.

21.3.1 SCHOOL TRIALS.
Manuals 1 and 2 were completed during 1988, and a visit to Solomon Islands was requested to conduct school trials. Unfortunately, there were administrative delays, and as a result I arrived to discover that the schools were winding up term 2 before the long mid-year vacation and the health curriculum coordinator was out of the country for several weeks attending workshops. It was therefore impossible to organise trials in the national schools at that time.

Cooperation however was forthcoming from the Chung Wah School, which was established by the Chinese community in Honiara specifically for Chinese children, but now accepts fee-paying national and, in special circumstances, ex-patriate students.

At a later date, the national coordinator organised minor trials at the Burns Creek Adventist Primary school, which is run by the Seventh Day Adventist Church with a staff of trained national teachers and a normal intake of children from villages on the fringe of Honiara.

1. CHUNG WAH SCHOOL TRIALS.
Chung Wah school boasts a high standard of education. The pupils come from families who expect their children to achieve. At the time of the trials, the principal was an English woman, a few teachers were ex-patriates, the remainder trained and experienced local teachers.
Sequences of lessons, rather than isolated lessons, were tested to provide continuity and greater opportunity for the behavioural objectives to be reached.

Six units were trialled, viz.

Grade 1.  "I am growing",
"More about me"
"Accidents - what to do."

Grade 2.  "Me and others",
"My senses"
"My environment".

The head mistress who supervised the trials was very supportive. She talked separately with the teachers who gave the lessons, and reported:

"All the teachers said how much they and the children had enjoyed the lessons.

All felt that the units and content were rather easy for our more sophisticated town children. One expatriate teacher was able to substitute more difficult examples where she felt them needed. One of the local teachers pushed two or three lessons together - probably not a good idea, but she kept their interest.

Nevertheless, all three Solomon Islands teachers said that the level of difficulty would be about right for the village situation.

In one classroom, the children got very excited and talked too much, especially the girls. However I think with more guidance from the teacher the children could have made more objective observations.

Two teachers suggested that "notes" should be included to give to the children, as this is an exam-oriented society and teachers love to have something to give the children to go and learn by heart so they can pass the exam...."

Bailey, P. (1988), Chung Wah School, Honiara
Feedback from teachers provided more specific information:

Grade 1: "I am growing".
"Very good unit. Fairly easy for standard 1, but room for extension by the teacher.
Teachers could put in additional activities, depending on their resources."

Grade 1. "More about me".
"The first three lessons were simple for these children. Some were shy looking at themselves in a mirror. Children liked the lessons about happy feelings, and could draw what makes them happy."

"A sad face - the children will tell you about their home treatments. Very sad ones and not expected. Mummy locked them in the storeroom, toilet or sent them out in the darkness. They could draw a picture, or act it out, to cheer them up. Children felt sad, some cried. Teacher can ask a boy or girl to comfort the others."

Grade 1. "Accidents - what to do."
"Objectives were clearly met. The children got a lot out of this unit. They opened up and talked a lot about feelings and the needs of others. A very good unit."

Grade 2. "My environment".
"This is a topic the children really enjoyed. By listening to each lesson, they know differences between good environment and bad environment.
The children really enjoyed the stories about "The Old Meat Tin" and "The Family who didn't care".
The last three lessons in this topic are so important to the children. It encourages the children to keep their classroom clean, tidy and attractive, and this should be an ongoing discipline.
This topic is suitable for children living in towns and villages."
Grade 2. "My senses".

"Enjoyable lessons, especially when the children were playing games.

They learnt many new things about their eyes, ears, etc. and how to care for them.

The lessons were short and easy to follow.

Each sense was covered in one lesson, not two, as would happen in a village school."

Grade 2. "Me and Others".

"The children enjoyed the lessons very much, measuring each other's height, fingerprints, comparing the colour of skin, eyes and hair.

They discovered that all children dislike something, others dislike different things.

The children loved to talk about their families. By end of the lessons they realised all family members are important.

The lessons were very easy for grade 2.

Some notes for children to copy are needed for each lesson."

Assessment of findings.

These findings confirmed two of the problems surrounding this project, viz. the great difference between the educational standard of the children in the same grade in urban and village schools, and the great variance in the capability of the teachers to conduct the prescribed lessons.

To prepare one manual for each grade to provide for these differences was a nigh impossible task. The best that could be done, especially for lower grades, was to write basic lessons for the least able teachers in the village schools, and provide extra activities for the more able.
2. BURNS CREEK ADVENTIST SCHOOL TRIALS.
While the staff and students at this school are all nationals, it would be considered a superior national school because of the high reputation of the Seventh Day Adventist Church in the area of education in the South West Pacific.

Furthermore, the Adventists have always been supportive of health care, health promotion and health education. This is evident in their vegetarian diet, their strong standard against alcohol and other drugs, their sponsorship of "The Five Day Plan" to stop smoking, and the incorporation of a health education unit as an integral part of treatment in the hospitals they administer.

The feedback sheets for these trials were expanded to include:

1) information about the teachers, such as:
   a. knowledge about health and health problems,
   b. health lessons they remember from school or college,
   c. their attitude to health education in primary schools,

2) more specific questions relating to the lessons,
   a. the appropriateness of the lesson objectives,
   b. the use of reference books for background reading,
   c. the suitability of content and teaching strategies for urban and rural schools,
   d. the effectiveness of the consolidation steps,
   e. ideas about simple teaching aids.
Findings.
The teachers' knowledge about health and health problems was confined to simple hygiene. Washing hands, cleaning teeth, washing hair to remove head lice and treating scabies appeared to be the main lessons they had been given at school. The systems of the body were taught at secondary school. No lectures on health were received during teacher training.

All agreed that it was important to teach health at primary school and the following are examples of supportive comments:

"It helps children grow up with good habits."

"Helps children to look after their bodies and their homes."

"Children should be taught how to live healthy from their early age so that this can be a habit to them as to live healthy."

"Children need to know how to care for their homes and their environment."

The lesson objectives in the lessons trialled were clear and acceptable to all the teachers, but only one used the reference books supplied (Werner, 1978 and Llewellyn, 1986) when preparing her lesson.

The content and methodology of these lessons was considered appropriate by these teachers because:

"it was something they themselves had gone through."

"it promotes good health in a very simple educational approach."

"it was easy enough for them to understand. I could tell by their anticipation and interest during the lesson and discussion."
Problems centred on lack of teaching aids and the need for notes for children to copy into their books.

One teacher suggested that charts could be prepared for every lesson with the notes written on them, "as the children like looking at charts".

There were requests for demonstration lessons, reflecting the need for in-service training.

21.3.2 DEMONSTRATION LESSONS.

A bracket of two lessons in the unit, "Keeping Safe on Roads" for grade 1, was demonstrated to the delegates at the school inspectors workshop in November 1989 by an untrained, but experienced, teacher at a school on the outskirts of Honiara. This school is on the main road leading into the town where driver and pedestrian visibility is very poor because of undulations and bends in the road, and thus crossing the road is a very real danger for these children.

The lessons were successful in every way. They were delivered in Pidgin, the teacher referring to the lesson notes in English from time to time. The children were well motivated in the classroom, and also responded well when taken out of the classroom to the roadway for demonstration and practice.

The response from both the teacher and the children impressed the school inspectors and increased their interest and enthusiasm for the new health curriculum.
21.3.3 CHECKING THE MANUSCRIPTS.

Several persons were prevailed upon to read the manuscripts. Depending on their expertise and the time they had available, they were given either specific units or the entire manuals to peruse.

They were requested to:

a) check the medical facts,

b) point out situations which may contravene customs or be offensive to the village people,

c) assess the lesson plans to determine whether:
   - objectives are clearly stated,
   - content and methods fulfil the objectives,
   - consolidation steps are appropriate,

d) provide additional information and teaching ideas which may be more suitable.

Special mention is made of the following:

1) The WHO/UNV health educator in the Ministry of Health who was experienced in school health education in the Philippines. This lady carefully and critically perused manuals 1 and 2 and provided detailed feedback.

She pointed to the need for more information in the "Teachers' Notes" for some topics, as this will be the only reference source for many teachers. She also believed there was a need for a more defined structure in some lessons to assist untrained teachers, i.e.

   a. introduction,

   b. lesson development,

   c. summary of concepts learned.
2) The National Nutrition Survey coordinator with the Save the Children Fund. This consultant checked the lessons on the topic "Food and Nutrition". She pointed out that some examples used would be outside the experience of village children and the need for care when attempting to change old customs. She also provided information about the common names, availability and nutritional status of local foods.

3) The National counterpart who, as explained previously, had been appointed as co-writer, so it was his duty to check the lessons carefully. He made minor changes to some lessons for grades 1 and 2, but tended to be concerned about matters which did not seem important, such as finding a hymn book containing the right tune for "Two little eyes", an action song for grade 1. He summarized his assessment of manuals 1 and 2 as follows:

   Pitching very appropriate, amount of work enough.
   Content very basic and fundamental, easy to follow.
   Hygiene lessons rightly addresses the personal problems with young children in the Solomon Islands situation.
   Taste is a very powerful determinant in what most adult and children take in the form of foods. But we could help to change children's taste for foods that are nutritionally valuable to them. In this end, the set of lessons have a good starter.
   Lessons on dental care are equally useful and certainly teachers will have to work out the best way of materialising the ideas in the lesson beforehand.
Emotional health is a most important but often very difficult unit to write on. The presentation here is very clear and personalised - in that the unit delves into the emotional areas of the child that many teachers often regard as a premises best left to the mother or father.

4) The chairman and members of the Primary Health Education Panel in the Ministry of Health, who had the ultimate responsibility for the new curriculum. Copies of manuals 1 and 2 were distributed to members of the panel to read carefully and edit.

A meeting of the panel was called in November 1988 to consider the acceptance of these two manuals. It was passed unanimously that manuals 1 and 2 be accepted and it was recommended that a local artist be engaged to draw appropriate pictures to illustrate the manuals.

CONCLUSION.
The completion of the trials of the teachers' manuals for grades 1 and 2 was satisfying for two reasons.

Firstly, these two manuals in their edited form were acceptable to the members of the Health Education Panel, representing the Solomon Islands government.

Secondly, much had been learnt from the feedback of the trials to give direction for the preparation of the remaining manuals for grades 3, 4, 5 and 6.
21.4 TRIALS OF MANUALS 3 TO 6.

It was fortunate that the successful completion of trials for manuals 1 and 2 had provided direction for the preparation of manuals 3 to 6, because further school trials were fraught with problems, as the following description of events during 1989 will show. This account also illustrates some of the difficulties besetting expatriate education consultants in developing countries.

Drafts of manuals 3 and 4 were nearing completion in early 1989 and WHO arranged a visit to Honiara in February, at the beginning of the school year, for pre-testing. On arrival it was found that the teachers were on strike over a claim for improved pay and conditions, and they did not resume during the four weeks of my stay. Nor could the health curriculum coordinator/national counterpart be contacted, as he, along with other senior education officers, was in the provinces trying to settle the strike.

Time was fruitfully engaged with other matters, including attendance at the WHO International Conference on Malaria, and discussions with medical and other personnel about the approach used, the accuracy of lesson content and cultural implications of the prepared lessons. However my priority at this stage was to get feedback from the schools by organising school trials and reacting with national teachers and curriculum officers, so it was disappointing and frustrating that this was not possible.
The health education coordinator returned to Honiara ten days before my scheduled departure, but he did not go to his office at the Curriculum Development Unit and could not be contacted by phone. I was informed that he was at the Ministry of Education with other senior education officers engaged in meetings about the teachers' strike.

It was therefore necessary to put my request for a meeting in writing, as follows:

WHO Office,  
Honiara.  
March 7, 1989

Dear Kiko,

I do understand that the teachers' strike is a very serious issue and that it has been necessary for you and the other curriculum officers to spend your time over these last three weeks trying to solve it.

However it is also imperative that you find some time to spend with me. WHO sent me here for a month, three weeks have gone already and I have not spent any time discussing the health curriculum with you.

There are many problems. I need much guidance about the length of lessons, whether lessons are too difficult for the children and many other things.

There are also administrative problems which must be discussed. I had hoped to finish this project this year, but without the feedback I hoped to get during this time in Honiara, I doubt that this will be possible. Also there is no guarantee that WHO will provide funding beyond 1989.

So you see, I cannot afford to waste all this time if there is to be a good health curriculum in the primary schools.

I leave Honiara on March 16. Please try your best to arrange a meeting with me immediately.

(signed) Joan
He responded favourably to this letter and we spent the next morning together, but he was not attentive. His mind was pre-occupied with matters to do with the dispute.

I gave him copies of the first drafts of manuals 3 and 4, and some units from manuals 5 and 6, asked him to read them urgently and provide feedback. But he was able to do little more than glance through some lesson plans during the following week.

We managed further short meetings before my departure and he was urged to give top priority to organizing school trials as soon as the schools resumed and provide me with feedback, but this request was not put into operation. (This is explained further in section 21.4.2 to follow.)

Thus the chief purpose of this visit to Honiara, viz. to get feedback from teachers about the suitability of the health lessons I had drafted for the upper primary classes, was not achieved.

21.4.1 LIAISON WITH UNICEF WORKER.

At this time a young woman UNICEF worker arrived in Honiara before proceeding to Buala in Ysabel Province, with a brief to develop health lessons about community hygiene and sanitation for village schools. She was very confused about her role and had not been briefed about the current health curriculum development project supported by WHO. We met by chance. (Such lack of coordination of between overseas aid workers and organizations was a common occurrence and has already been discussed in chapter 9.1)
Collaboration seemed in order. Here was an opportunity to get feedback about conditions in villages in a distant province from a person whose opinion could be trusted. (As explained in chapter 7.4, while cross-cultural communication improved as the project progressed, there remained a reserve, and I never felt completely confident that the true picture was being represented when I sought information about rural life from my counterpart, panel members and other national officers.)

The UNICEF worker was given copies of the scope and sequence chart and manuals 1 and 2, to get the general idea of the approach, and was requested to read the drafts of manuals 3 and 4 critically and offer suggestions.

It was agreed that lessons she developed as part of her brief, or at least ideas from them, would be incorporated into the curriculum, especially for grades 5 and 6 which at that time were in the early stages of development.

After several months, she forwarded the results of her work. She had expanded the reference notes and suggested changes to the lesson plans of the following lessons:

- Baby has belerun. (grade 1)
- Diarrhoea and dehydration. (grade 6)
- A toilet keeps me healthy. (grade 1)
- Using the VIP (pit) toilet. (grade 3)
- A toilet prevents sickness. (grade 6)
- Water. (grade 1)
- What spoils our water. (grade 2)
She wrote two lessons on "Lokol Kaikai" (local food) for grade 4, and a sequence of hygiene lessons, viz:

- My healthy body. (grade 1)
- My healthy family (grade 2)
- Our healthy school. (grade 3)
- Our healthy home. (grade 5)
- Our healthy village. (grade 6)

She then compiled a series of lessons on the theme, "Hygiene and Sanitation", including some of the lessons mentioned above, for trialling at Tamahi/Poro school, viz:

Grade 3: Our healthy school.
- Infected sores.

Grade 4: Germs in water.
- Germs in food.
- Worms that live inside us.
- Our healthy home.

Grade 5/6: Our healthy village
- A toilet prevents sickness.

Unfortunately these lessons were given in the last week of term, so as not to interrupt the normal school routine, but at this time both teachers and children were more interested in break-up activities. Trialling was not satisfactory, as can be seen in the following comments.

"Lesson was disturbed with the school closing program so not presented in a way I like. If there was time I would make the lesson interesting and wonderful."

"The lesson itself is good except that we cannot really put a constructive work on it because we have been doing it in the last week of term."

Other feedback unfortunately provided no additional useful information, and so details are not given. This exercise however serves to illustrate the difficulties experienced when attempting to obtain feedback from teachers.
21.4.2 HEALTH EDUCATION PANEL MEETING.

At the end of July 1989, the report of the Health Education Panel meeting, 3rd-6th July, was forwarded to me in Australia. It was obvious from the report that the health coordinator had done nothing towards critically reviewing the lesson plans or organising lesson trials in the schools in the previous three months and had delegated decision making to the health panel. The following is extracted from this report:

AIM AND OBJECTIVE OF THE ADHOC MEETING.

To proof read the content of the lessons and ratify and approve the health lessons for Grades 3 and 4.

To recommend to the writer matters to be considered for the completion of the primary Health Program.

FINDINGS.

GRADE 3 LESSONS PLANS

The committee read all the lesson plans and discovered that Topic 5, My Teeth, and Topic 6, I am Still Growing, are to be completed by the writer.

Grade 3 lesson plans that have been completed was approved by the Adhoc Committee.

GRADE 4 LESSON PLANS

After careful reading of the lesson plans the adhoc committee noted Topic 6, My Home Environment, Topic 7, Patterns of Growth and Development, Topic 8, Different Kinds of Teeth and Topic 11, Health and Safety Services are not yet complete.

The completed lesson plans have been approved by the adhoc committee.

FORMAT AND SEQUENCE

Format of the lesson plans was approved and the adhoc committee appreciate the systematic layout along with the logical sequence of the topics.
CONCLUSION OF THE LESSONS

Children will enjoy the concluding activities - miming stories or practical activities. This will be discussed with teachers at in-service courses.

RECOMMENDATIONS.

1) That illustrations be included in all manuals.
2) That picture charts accompany the lessons.
3) That the writer completes remaining lesson plans for grades 3 and 4 by September 1989.
4) That panel will scrutinize all lesson plans for grades 5 and 6 by October 1989.

There was also a note to the effect that "due to limited time, the Health Panel members agreed to withdraw the health trialling program this year". (My emphasis)

THE OUTCOME.

While it was comforting to know that the panel had approved all lesson plans so far prepared, I was outraged at the decision to abandon the school trials of my draft lessons. Perhaps the panel was concerned about the time factor and of the need to get the manuals completed quickly in case WHO funding was cut off at the end of the year, yet the draft lesson notes were given to the national coordinator four months previously, in plenty of time for trials to be implemented.

This decision meant in effect that responsibility for completion of the teachers' manuals was handed to me, without the benefit of any feedback from teachers. This was not the way I had planned to develop the curriculum.
21.5 FINAL STAGES OF TRIALLING THE CURRICULUM.

There remained two opportunities for feedback.

1) The workshop to introduce the curriculum to the regional education officers in November, 1989.

2) Field trials, hopefully of the whole curriculum, in selected schools in urban and rural areas during the 1990 school year, the lessons being given in sequence as part of the normal teaching program.

21.5.1 FEEDBACK FROM THE WORKSHOP.

The workshop (which is described in chapter 22) was organised to include sessions for reading the lesson plans. Participants were organised into six groups, a group for each grade. A different topic was considered each day (see program schedule in chapter 22). A feedback sheet was provided on which to note any problems under the headings:

- Objectives
- Materials
- Teachers' Notes
- Lesson Notes
- Words not understood (to be included in a glossary)

Because there were so many lessons to review, some 500 across the six primary grades, it was not possible to get complete feedback in the time allotted. However the delegates cooperated to the best of their ability and as time allowed. Each day in a plenary session, the findings of the different groups were shared and recorded on tape.

An attempt was made to assess findings and make necessary changes to the draft manuals on computer disk during the same evening, but the task was too great and much of the assessment had to be postponed until after the workshop.
With the exception of the unit on Sex Education which will be discussed in chapter 23.1, there were no serious problems, as the following summary indicates:

- Many comments related to the use of English words and the form of English expression which some delegates found hard to understand.

- Some objected to the use of Pidgin words in the text. It was discovered that Pidgin is considered to be the equivalent of slang and not acceptable in the teachers' manuals.

- Frequently more detail was requested in the Teachers Notes which indicated that their knowledge of the content of the health education syllabus was poor.

- There were no adverse comments about the lesson objectives which were stated in the manner which was familiar to them.

- Most delegates were happy about the activities suggested, although in the discussion it was obvious that some methods were new to them and they were not sure how the teachers would react.

- There was concern about teaching aids, as even the simplest suggestions would be difficult for teachers in the rural areas to obtain. A recommendation was formulated that teaching aids and pictures should be provided.

- Comments relating to cultural aspects of the lessons were not specifically requested, but any suggestions or corrections to the lessons were noted.

Following the closing of the workshop, the manuals were hastily revised and photocopied, and copies were left with the national counterpart, with the request that full year trials be organised when school resumed in 1990. Decisions about further support for the project from WHO had not been made at this stage, but I was optimistic that I would be able to return to Honiara during 1990 to assist with final assessment of trials and editing of the manuals.
21.5.2 FIELD TRIALS DURING 1990.

On returning to the WHO regional office in Manila for debriefing in December 1989, it was discovered that all the funding for this project had indeed been exhausted. Furthermore, the Country Liaison Officer in Honiara who had initiated and loyally supported this project was to be transferred to Western Samoa in the New Year.

I formally requested the opportunity for a final revision before the manuals were printed, but my superiors in Manila maintained that this was a task the nationals could do for themselves. Although it was disappointing not to be involved in the final evaluation of the curriculum, this decision was not surprising, as the project had been plagued with uncertainty since its inception. I took comfort from the fact that national involvement at this stage might provide a greater sense of ownership of the curriculum and improve the chances for its successful implementation into the schooling system.

The Health Education Panel met on several occasions during 1990. I was informed that school trials were organised for grades 3 to 6 in 20 selected schools and feedback was assessed. Also the manuals were carefully scrutinized, lesson by lesson, and "amended into context" as necessary. Illustrations were drawn and inserted where appropriate.

At their meeting in October 1990, it was reported that manuals 1 and 2 were already type-set, manuals 3 and 4 were ready for re-typing, and manuals 5 and 6 being reviewed.
The panel was hopeful that the manuals could be printed and distributed for use in the schools during 1991. However, it is not known whether this target was reached, as the health curriculum coordinator/national counterpart left this post at the end of 1990 and could not be contacted.

CONCLUSION.

It has been shown that trialling the new health curriculum, especially the teachers' manuals for the upper primary grades, was at times a difficult and frustrating task. Many factors contributed to this.

There were difficulties at administrative level, (as discussed in chapter 9.1), The Solomon Islands Ministry of Education had realistically requested the services of the consultant for a period of at least two years full time to develop and implement the curriculum, but this period was considerably reduced by the WHO office in Manila. As a result, lost opportunities and frustrations on the visits to Honiara grew into major crises, and my involvement in the final assessment of the curriculum had to be abandoned.

The arrangement made with WHO, namely contractual service agreements for the manuals to be drafted in Australia with occasional consultancies in Solomon Islands for pre-testing, unfortunately did not function as well as expected. There was insufficient liaison between the Ministries of Education and WHO in Honiara regarding suitable times for visits, as well as delays both in Manila and Australia completing formalities for each consultancy.
If adequate library and support facilities had been available in Honiara, a better arrangement would probably have been to reside in-country until the project was complete. This would have enabled easier interaction with the curriculum development officers, the health panel, teachers and others with interest in the project.

Support from the health education curriculum officer who was appointed as the national counterpart and co-writer was disappointing. It was initially envisaged that he would be responsible for adapting the lesson plans to ensure their suitability for the village schools, in fact it was on this condition that the task of writing the teachers' manuals was accepted. After at first agreeing to this arrangement, he later declined to act in this capacity, possibly because he lacked professional skills in health education and/or no financial reward was offered by WHO for the extra responsibility this entailed.

Likewise, support from the Health Education Panel was disappointing. Apart from an initial 3-day meeting when the content and scope and sequence chart was discussed, there was no further opportunity to react formally with the panel which had the ultimate authority to accept or reject the teachers' manuals, mainly because of the difficulty of bringing panel members to Honiara, as most were teachers or inspectors in the provinces. It was necessary to manage with copies of reports of meetings held when I was absent from the country and occasional informal discussions with individual members of the panel during consultancies.
There never appeared to be any anxiety on the part of the national officials in the Ministries of Health and Education about the progress of the curriculum. Senior officers in both ministries were kept informed of progress and they offered their approval and support at all times.

In retrospect, the inference to be drawn from this scenario is that, following successful trials of manuals 1 and 2, the nationals were satisfied that the curriculum and the teachers' manuals to support it were being developed to their satisfaction and they saw no need to make any input into the project. There is also perhaps a cross cultural inference here about different concepts of time, of the Australian consultant anxious about getting the task completed on schedule, while the Melanesian counterpart took a much more relaxed approach to the project.

However when funding for the project was withdrawn, the panel accepted responsibility for the curriculum and obviously worked very hard during 1990 to complete the task of field testing, editing, illustrating and publishing the manuals. The importance of national involvement in educational innovation, both academically and financially, was discussed in chapter 9. It was indicated that this is necessary to give a sense of ownership of the innovation.

Thus the involvement of members of the National Health Education Panel in the final stages of the development of this health education curriculum, in their own time and in their own way, should augur well for its successful implementation into the schools.
22. IMPLEMENTING THE NEW HEALTH CURRICULUM.

The procedure for implementation of a new curriculum into the national primary schools was already established by the Solomon Islands Ministry of Education and was as follows:

Stage 1: Workshop in Honiara for regional education officers, conducted by the consultant/s, national curriculum officers and the subject teachers' panel. The time allocated for this was normally two weeks.

Stage 2: Workshops in the provinces for provincial headmasters conducted by the regional education officers.

Stage 3: Workshops for the teachers conducted by the headmasters of each school.

The success of the first stage was critical. Unless the regional education officers were convinced of the importance of, and have a good understanding of the new curriculum, they would be unlikely to be enthusiastic about it and unlikely to introduce it competently, if at all, into the schools in their areas of responsibility.

The Honiara workshop was therefore a very important part of this project and the culminating activity. Also, as explained in the last chapter, although not realized at the time, it was my last opportunity to make input into the curriculum.
22.1 WORKSHOP FOR REGIONAL EDUCATION OFFICERS.

It should be explained at the outset that this workshop was held before the curriculum had been finalised and approved by the Ministry of Education. This was not a normal practice, but occurred in this instance because money to fund the workshop had been allocated by WHO and the Ministry of Health in the current triennium. It was held at the latest date possible, November 20 to December 1, 1989.

Also contrary to normal practice, this workshop was organised and conducted by WHO and the Health Education Unit of the Ministry of Health, not by the Curriculum Development Unit and the subject teachers' panel, although the latter attended as participants or observers.

The regional education officers were brought to Honiara from the provinces to attend. This alone was a difficult logistic exercise, as some came from the outermost provinces, Makira and Temotu, and took upwards of a week to make the journey, partly by canoe.

<table>
<thead>
<tr>
<th>Province.</th>
<th>Number of participants.</th>
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<tr>
<td>Malaita</td>
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<td>Ysabel</td>
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<td>Central</td>
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<td>Makira</td>
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<td>Western</td>
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<td>Guadalcanal</td>
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<tr>
<td>Honiara Town</td>
<td>2</td>
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<tr>
<td>Curriculum Development Unit</td>
<td>2</td>
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<tr>
<td>Ex-officio from SDA schools</td>
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</tbody>
</table>
PRIMARY EDUCATION OFFICERS WORKSHOP
TO INTRODUCE THE NEW HEALTH EDUCATION CURRICULUM.

NOVEMBER 20 - DECEMBER 1, 1989

PROGRAM.

Nov 20 OPENING PROGRAM.
Pre-test
Introduction to the curriculum

Nov 21 Topic: "MY BODY"
Lecturer: National Lecturer from
College of Nursing

Nov 22 Topic: "SAFETY AND FIRST AID"
Lecturer: Isaiah Tulavaka
Health Education Officer

Nov 23 Topic: "PERSONAL & ENVIRONMENTAL HEALTH"
Lecturer: Eddie Anisitolo
Health Education officer

Nov 24 Topic: "FAMILY HEALTH, SEX EDUCATION & POPULATION EDUCATION."
Lecturer: Dr. Jimmy Rodgers
Under Secretary, Ministry of Health

Nov 27 Topic: "GROWTH AND DEVELOPMENT & MOTHER/CHILD HEALTH"
Lecturer: Dr. Junelyn Pikacha
Director, MCH, Ministry of Health.

Nov 28 Topic: "COMMUNITY HEALTH, DISEASE CONTROL & HEALTH SERVICES."
Lecturer: Dr. Nathan Kere
Director, Malaria Research Centre.

Nov 29 Topic: "EMOTIONAL, SOCIAL & SPIRITUAL HEALTH"
Lecturer: Dr. E. Nukuru,
Under Secretary, Ministry of Health.
(J. Llewellyn substituting)

Nov 30 Topic: "NUTRITION"
Lecturer: Ms. Eleanor Ansaldo,
UNV/WHO Health Education officer

Dec 1 CLOSING PROGRAM
Wind-up seminar.
Post-test.
Farewell celebrations.
The first day of the workshop was given over to an opening program, chaired by the Senior Community Health Education Officer, orientation, pre-testing and introduction to the curriculum. Addresses were given by the Minister of Health and Medical Services, the (acting) WHO Country Liaison Officer, the Under-Secretary in the Ministry of Education and the Director of Primary Education, all of whom spoke about the innovative approach in the new curriculum.

The new curriculum was introduced through the Scope and Sequence Chart which was distributed, explained and discussed. There was immediate dissent about the inclusion of sex education lessons in the primary curriculum and this unfortunately dominated the discussion.

The following eight days were devoted to intensive study of all aspects of the new curriculum. Each day a different topic was considered, as is shown on the program.

In the first session the topic was introduced by a national with expertise in the field, the purpose being to arouse the awareness of the audience to the issues the curriculum was addressing. In the following session I explained how the topic in question was dealt with in the curriculum, attempted to justify my approach and directed attention to specific lessons in the teachers manuals.

In the afternoon, delegates were requested to review critically and discuss lessons prescribed in the manuals. Community health educators acted as resource persons.
The purpose of this exercise was to familiarise the education officers with the curriculum, as well as to obtain feedback, as discussed in the previous chapter.

The final session each day took various forms. Ideas and problems were shared and peer teaching was attempted. On one occasion the sessions were re-scheduled to allow the participants to travel to Narara school on the outskirts of Honiara to view two demonstration lessons.

The delegates were asked to do some homework each night, aimed to familiarize them further with the new curriculum. As they were billeted together, it was suggested that they discuss the topic which had been dealt with during the day, and peruse the lessons for all the grades.

Social activities were an important part of the workshop. Sumptuous morning and afternoon teas of "healthy" foods were provided each day by the Health Education Unit. This provided an opportunity for informal interaction.

The plan for the final day was a general "wash-up" of the proceedings, a participants' seminar chaired by one of their number and a final questionnaire. Some delegates unfortunately had to leave early to make connections home. The final questionnaire was therefore not completed by everyone. However important feedback about the knowledge gained, attitudes developed and general understanding and reaction to the curriculum was obtained. Some important findings resulting from the workshop will now be discussed.
22.1.1 THE PRE-TEST.

The purpose of the pre-test was to assess health knowledge, attitudes and practices in order to provide direction for the instruction to follow, and this was explained by the consultant. All of the nineteen delegates present willingly participated. The questionnaire was as follows:

PRE-TEST.

1. Name the five sense organs.
2. Why do we breathe?
3. What are two different functions of the blood?
4. Name three different parts of the digestive system.
5. Write the names of the three food groups and give two examples of foods belonging to each group.
6. What are junk foods and why are they bad for us?
7. What is a balanced meal?
8. The slimy film which forms on teeth is plaque. Where does it come from? Why must we get rid of it?
9. What are germs?
10. What are three different ways germs are spread?
11. What causes diarrhoea in babies? Why is it dangerous?
12. What are two dangers of bottle feeding?
13. What is immunization and what is it for?
14. What are three important ways to prevent malaria?
15. Can you name three different ways AIDS is spread?
16. What is a simple treatment for burns?
17. How can you stop severe bleeding?
18. What are two different ways you could get an electric shock?
19. What would you do if a child's clothes were on fire?

20. If a child drank kerosene, what would you do?

21. What is a drug?

22. Name three different alcoholic drinks.
   Which has the most and which the least alcohol?

23. Give two reasons why smoking is harmful to health.

24. Solomon Islands has one of the highest rates of population growth in the world.
   Is this good or bad? Give your reasons.

25. What is FAMILY PLANNING?
   Do you agree with family planning? Give reasons.

26. Describe the source of water for your village or town, including where and how water is collected.
   Is this water safe to use? Give your reasons.

27. Describe toilet arrangements in your town or village.
   Do you think these arrangements are satisfactory?
   If not, how could they be improved?

28. Describe two accidents which have occurred recently at school or elsewhere.
   What was the cause of these accidents?
   How could they have been prevented?

29. What do you consider the biggest health problem in your village?
   Do the village people understand the cause of this problem and what do they do about it?
   What help does the village need to get rid of this problem?

30. Do you think health education at school could improve the health of village people?
   Give reasons.
SUMMARY OF FINDINGS.
1) Correct answers were given by the majority to questions on germs, food groups, immunization, malaria and AIDS. This possibly reflected emphasis on hygiene and food groups in school health lessons, and recent community health programs, especially radio broadcasts, on the latter three topics.

2) Very poor responses were given to questions on
   - body functions (understandable if this was not taught)
   - first aid (indicated need for instruction, as medical services frequently not available in villages)

3) Drugs were mostly associated with medicines. Beer, whisky and gin were the most commonly named alcoholic beverages, but there was almost complete ignorance about their alcoholic content. Coke was named three times. Many however did not answer this question which suggested inexperience or prohibition by some churches.
   Smoking was associated with lung cancer and a variety of other problems.

4) Population growth and family planning. Thirteen respondents agreed that high population growth was a bad thing for a variety of reasons related to employment, health, education, land use, feeding the family, law and order. Six respondents maintained Solomon Islands needed a larger population, one believing "It is a good thing because of the promise to Abram in the bible. It has come true."
Most understood and supported family planning, being aware of the advantages of having a "manageable" family, but only three indicated concern for the health of the mother. Several however expressed their concern about "how you're going to manage it".

Two strongly objected:

"We do not need it as Solomon Islands still underdeveloped."

"There is no reason why we should worry about this subject."

5) Water and sanitation.

According to one respondent, "the water supply is good for all villages in Solomon Islands because its clean and free from wild animals and human beings". This however was an over-statement. The most common source was underground springs in the hills which was piped to villages (5), dammed (2) or collected in buckets (5). Two villages collected rainwater in tanks, one had a well, and for the remainder a river was the water source which was considered unsafe unless treated as in the capital, Honiara.

Toilet facilities were generally considered unsatisfactory. Only the towns have flush toilets. Coastal villages used the beach (3) or a house built over the sea (6), the latter being a problem at low tide. Most inland villages used the bush, "the traditional method - men on one side of village, women on other". There were reported one "bush dug toilet", and four water seal slab toilets, the latter being the preferred arrangement for villages.
"Along with the piping of water we also have a toilet slab per family. Family has to dig a hole and toilet is installed by their dormitory."

"I plead the health department should now assist."

6) Accidents.

The accidents reported were:
- child fell out of a tree (6)
- motor vehicle accidents (8)
- drownings (3)
- on the playing field (4)
- cut with knife (2)
- baby burnt in a fire (2)

7) Major health problems.

Three respondents stated an illness, viz. malaria, another two mosquitoes and one cited malnutrition. The remainder described conditions in the villages which they believe cause sickness.
- lack of personal cleanliness (4)
- lack of cleanliness in the home (4)
- disposal of waste matter (3)
- keeping pigs and other animals in village (3)
- types of houses built (1)
- over-crowding (2)
- poor water supply (1)

Apart from the association of malaria and mosquitoes, many responses indicated that village people did not associate the above factors with sickness and therefore did nothing about it.
"The people are very slow to understand these problems."

"Very often they tend to think some evil spirit might have caused it."

"There is a great need at this stage to make sure that villagers are aware of the importance of health."

The help required to assist the villages to overcome these problems included:

more clinics and visits from health people (3),
better pay "so that some of the money could be used for building materials" (1),
financial assistance from government (4),
assistance to re-settle (4),
health awareness education (8).

"They need education of this knowledge and its practical applications and to live in it."

8) School health education.

The question about the possible influence of a school health curriculum was asked before the respondents had been introduced to the new curriculum. This would account for two of the replies:

"Only a very little can apply. The reason is just simple. Only a small proportion is applicable."

"Health education at school could improve the health of village people if such health education program is geared towards such assistance."

Two respondents cited the difficulties of transference of school knowledge to the home:

"Most times children fail to practice what they learn at school because parents do not take note of what their children learn."

Another believed that "the people will respond to help".
Six believed that children can help to transmit health knowledge through the villages because
“the children will be proud of clean houses”,
“there will be enthusiasm for new ideas”,
“children will improve village lifestyle”.

Four believed a cooperative effort from village chiefs, health teachers, health educators, clinics, councils and churches was needed.

The reality is probably summed up in two statements:

"Schools must be a place where health is taught and practised. Only this way will children understand the importance of health."

"I don't think health education in school will improve the situation now, but I would like to see everyone in the Health Services emphasizing the practical application and education of health right throughout to the very remote level of living in the villages. Schools and health services together can improve health."

CONCLUSION.

These findings provided more information about conditions in the rural villages, custom practices and health concerns of village people than I had been able to obtain through other sources up to this time. While this verified assumptions on which the curriculum was based, it was unfortunate the information had not been available earlier.

Knowledge of health issues on the whole was poor. There appeared to be a preconceived notion that health education was synonymous with hygiene and an underlying insecurity and anxiety about the new health curriculum. This information was useful when planning activities for the workshop.
22.1.2 THE POST-TEST.

The purpose of the final questionnaire was to consolidate all that had arisen during the workshop. Seventeen respondents answered questions about:

- health,
- health education - the purpose, content and methodology of, and difficulties with the new curriculum,
- sex education (discussed in the next chapter), and
- plans to implement the new curriculum into the provinces.

SUMMARY OF FINDINGS.

PART A: HEALTH.

Q1. What is meant by physical health?
Most had the general idea, but it was expressed in different ways and often reflected the normally accepted poor health of village people.

"It is the absence of disease from the body."

"Our physical body (whole being) be in good health."

"Physical health is concerned with the capabilities of what we can do with our strength, e.g. playing games, working out and inside houses, etc."

"Physical health to me means that any living person has to have his/her internal as well as outer appearance function properly and not weak or look sick all the time."

Q2. What are some ways to improve physical health?
Keeping clean, cleaning up the environment, eating the right food, having plenty of exercise and rest were the most common answers. A few mentioned disease prevention:

"being able to know how to protect or prevent from getting diseases."
Q3. As well as physical health, what else is needed to make a healthy person?

The answer expected here, viz. emotional, social and spiritual health was given by ten respondents, while others gave various answers, such as:

"a) washing whole body with soap and dried properly
b) wearing clean calico
c) visit toilet regularly."

Maybe the question was ambiguous.

4. What do you think will be the main health and social problems facing this country in the future?

Without exception, respondents named the population explosion or consequences of this, such as insufficient resources, schools and hospitals, increased pollution and unemployment, as the major problem. Two mentioned the spread of infectious diseases due to overcrowding.

Many were concerned about malnutrition, due either to the acquisition of land now used for subsistence farming or because "laziness brings no food".

Several feared the drift of young people to towns and associated problems of social disturbance, crime and sexual immorality, AIDS and sexually transmitted diseases.

"There will be a lot of loose youngsters floating in the towns and cities - behaviour will be beyond control due to immoral activity - they will live a short life due to poor health, beer, eating only what they can find."

Three respondents predicted an increase in family problems, divorces and fatherless children. Many blamed tourists, and one blamed education:

"More education is dangerous."
PART B: HEALTH EDUCATION.

Q1. What is the main purpose of health education?
Most answers centred on health awareness and ranged from "to transmit information about health", "to try to bring health for all to the country", "to teach children that health is important" to:

"to have good knowledge of health and introduce changes and the good vital attitudes to schools, so community will adopt good healthy ways of living."

"healthy children learn better, grow better and become healthy fathers and mothers."

Q2. Read the following and tick statements you agree with.

a) Health education should be taught by parents and is not the concern of the school.  
   Agree: 0

b) Health education is the job of health educators and is not the responsibility of the school.  
   Agree: 1

c) Health education should be a combined effort of parents, community and schools.  
   Agree: 17

d) Teachers are not trained to teach health and should not be expected to do so.  
   Agree: 0

e) Teachers have no resources to teach health and will find teaching this subject difficult.  
   Agree: 6

f) The reference books and teachers' manuals should enable most teachers to give the lessons.  
   Agree: 16

This response was gratifying, as it indicated almost unanimous acceptance of the curriculum and the manuals developed to assist its implementation. The dissenter to question f) was very negative throughout the workshop and was the person who quoted Abram's promise to the population question in the pre-test.
Q3. At the present time, are any health lessons taught in schools in your province?

<table>
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<tr>
<td>YES</td>
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<td>YES some schools</td>
<td>2</td>
</tr>
<tr>
<td>NO</td>
<td>2</td>
</tr>
<tr>
<td>DO NOT KNOW</td>
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If YES:

a) What lessons are taught?

- Cleanliness and personal hygiene (9)
- Nutrition and food groups (7)
- Clean environment (3)
- Dental care (1)
- Immunization (1).

Several admitted they did not know what teachers taught.

"Teachers develop their own lessons. Usually health posters without any set syllabus."

"Teachers who have been taught health in their school days usually give that as a lesson."

"If there's any old health book the teacher may pick some ideas from that and teach."

"Teachers use whatever is available within their reach. Sometimes teachers use their own practical experiences."

Q4. Health lessons are not "chalk and talk". Why not?

With the exception of the dissenter quoted above who maintained that "...health is teacher centred and needs talking", all responses were in line with the aims and objectives of the health curriculum.

"It should be a two way conversation lesson which teachers and children have to take."

"Because it's not a subject which we teach like maths and English but live and practise healthy living."

"All health lessons are practical lessons. Not just teach the lesson but be an example to the children. Believe what you teach."

"Chalk and talk lessons do not help to change behaviour. It is the listening and doing and valueing part of it."
Q5. What do you think are suitable teaching methods for health education?

A wide range of answers were given here. Many stressed a pupil-centred approach.

Introducing the lesson with a story (5)
Following with activities (4)
Use of pictures and charts, films and radio (many)
Play acting (3).
("Children actually do what health lesson says.")
Demonstration and practice (2)
Questions and discussion (4)

"The most effective method would be Demonstration and Discussion. Kids would come in with the discussion expressing individual impressions and opinions on their own experiences with particular reference to the topic under discussion."

Q6. Do you anticipate that the teachers in your schools will have difficulty with the new teaching methods?

YES 1
NO 14
DO NOT KNOW 2

"My anticipation would be that teachers will follow the lessons quite easily without having any difficulty following the lessons."

"It is difficult to tell at this stage but the future will tell. As the program is covered then this statement can be yes/no."

Q7. Which strands in the new curriculum do you find the easiest and most difficult to understand?

Easiest strands:

Personal hygiene (10)
Dental health (6)
The body and its care (5)
Safety and first aid (4)
A healthy environment (3)

Most difficult strands:

Food and nutrition (5)
Germs and diseases (5)
Emotional and social health (3)
Q8. Which strands do you think are most important for:

a) grades 1 and 2.
b) grades 3 and 4.
c) grades 5 and 6.

Responses for grades 1 & 2, and grades 3 & 4 were similar.

All strands important (5)

Most relevant for village children:

- The body and its care (7)
- Personal hygiene (6)
- Environmental health (4)
- Food and nutrition (4)

For grades 5 and 6, greater importance was given to:

- Accidents, safety and first aid (7)
- Diseases and health services (5)
- Emotional and social health (5)
- Growth and development (5)

Two respondents cautioned "take care with sex education".

Q9. Do you think the health lessons in this curriculum will help young people live happy healthy lives in the future? Give reasons for your answer.

YES 12

"They might practise the lessons in their lives, e.g. having balanced meal, washing hands after toilets, etc."

"The lessons will help young people very much because the methodology is very good and the curriculum is relevant."

"It is through ignorance that people do not live healthy living, otherwise there shouldn't be any problems being faced."

DO NOT KNOW 4

"It will be up to each individual to what extent he or she understand health and how they put it into practice."

NO 1

"Only those who believe in God will live healthy lives. And those who believe what they teach will live as an example to those near them."
Q10. Do you think the new health curriculum should be introduced into the primary schools? Give reasons.

YES 12

"I do not have any changes in mind that I'd like to see in the curriculum. As far as I can see and according to my being in education department for 23 years I'd rather see the subject introduced."

"These newly developed Health Manuals are designed in a very simple and understandable way for all teachers in Primary Schools in Solomon Islands."

"I would like to see that lot of emphasises be put on schools physical environment. Frequent visits by the health staffs and the health educators and a set program to school be implemented."

NO 2

"Much work to be done before stage of introduction."

YES IF CHANGES MADE 3

"I would like to see reference book, charts, day to day program, lessons and more practical exercises."

"The lessons in the growth and development particularly how to make a baby in the upper classes should be generalised."

"Delete sex education and leave it until later in the secondary school. Dropouts in grade 6 should join in the community program if age qualifies. This avoid taterlising and teasing under age group."

PART C: IMPLEMENTING THE NEW CURRICULUM.

Q1. What is your plan to implement the health curriculum in your province?

The school inspectors were all well aware of the procedure for implementing the curriculum, viz:

"My plan is to run workshops for all head teachers at the provincial level. Then the head teachers run school based workshops for their teachers."

Some respondents were more discerning:

"I have in mind to utilise nurses, first aiders, health education officers, teachers, parents and everyone else to take greater parts in involving - directly or indirectly - in health."
"There should be health education awareness in the community. This should cover all areas which might cause disturbance."

Q2. What difficulties do you expect?
Eight of the respondents thought only about funds to run the workshops - for transport, accommodation and food. "Temotu needs $6,000 to run a workshop." Six worried about lack of materials, including a trainer's in-service manual.

But others considered difficulties they might experience conducting the workshops, such as:

"Teachers may be shy or reluctant listening and talking about health."

"Slow understanding of teachers in this new subject."

"People not understanding what health is."

"Those not interested in health destroy the program."

"Might be problems with some cultural and religious beliefs."

"How effective I will be giving the knowledge to the head masters and the headmasters to the teachers."

SUMMARY.
In spite of the cautiousness of some respondents, who may have tempered their answers in this final questionnaire knowing that the consultant would be reading them, it can be seen that in general the delegates gained a good knowledge of the philosophy, content and methodology of the new primary health education curriculum through their attendance at the workshop.

Note was taken of the diversity of the responses which indicated the varied needs of the teachers. This was taken into account when checking the manuscripts of the manuals.
CONCLUSION.
As stated at the beginning of this chapter, success of the education officers' workshop was believed to be critical to the successful implementation of this new curriculum. Unless these officers with authority in the provinces were convinced of the importance of, and have a good understanding of the new curriculum, they would be unlikely to be enthusiastic about it and unlikely to introduce it competently, if at all, into the provincial schools.

The workshop was sponsored, organised and conducted by WHO, in collaboration with the Curriculum Development Unit, represented by the primary health education curriculum coordinator. This officer, whose input into the project as national counterpart over the previous two years had been disappointing, displayed leadership amongst his contemporaries and much enthusiasm for the new curriculum. This apparent change of attitude was encouraging, in view of the fact that he would be required to take more responsibility for the curriculum in the future.

All the regional education officers were summoned to Honiara to attend the workshop. All seemed happy to attend, as this was an opportunity to interact with their peers. As another incentive, WHO provided an allowance for each delegate attending, as well as covering travelling, accommodation and living expenses while in town. Final payment was withheld by the WHO administrative officer until the last day to encourage the delegates to stay with the course.
Discussions at the workshop were at times very heated and emotive. Questions posed were answered and problems raised were (hopefully) solved by national health and medical professionals and community health educators, as well as by myself.

I believe I noticed a developing awareness of the need for more, and different kinds of health lessons in the primary schools than are at present being given, together with a deepening understanding of the philosophy and methodology of the new curriculum. This was confirmed in the responses to the post-test.

It was indeed unfortunate that the manuals were not ready for distribution while the enthusiasm was ripe, and it is not possible to predict the dampening effect of this.

However, as discussed in the last chapter, the involvement of the Health Education Panel, which carries the authority of the Ministry of Education for this subject, in the final editing and granting of approval of the manuals should provide a positive climate for the implementation and acceptance of the new curriculum.
22.2 SUPPORT FOR CURRICULUM IMPLEMENTATION.

22.2.1 IN-SERVICE COURSES.

Three different kinds of in-service courses workshops were planned to assist the implementation of this new health education curriculum.

1. Workshops to assist village teachers implement the new curriculum were the most immediate need. These workshops constitute stages 2 and 3 of the implementation process. The organisation of such workshops would be at the discretion of the education officers or headmasters concerned, but would likely follow the structure of the workshop for the regional education officers discussed in the previous section. It is also likely that the organisers would seek the assistance of field health educators or nurses if this were possible.

2. Workshops for the regional education officers have been and will continue to be organised from time to time by the Health Education Unit in Honiara. One such workshop seeking to acquaint delegates with the content and methodology of health education and first aid, held in 1988 as a prelude to the introduction of the new curriculum was mentioned in chapter 19.3.

3) In-service courses offered by the Solomon Islands College of Higher Education are envisaged for the future to give some untrained teachers the opportunity to increase their knowledge of health issues, learning experiences and assessment procedures appropriate for health education.
22.2.2 PRE-SERVICE COURSES.

The School of Education at the Solomon Islands College of Higher Education is responsible for the pre-service training of teachers. Primary teacher trainees take a two-year certificate course, with entry either direct from school or more frequently after an apprenticeship teaching lower grades in a village primary school. Some primary teachers receive part-training, equivalent to one year of the certificate course.

The lecturer in Health Education at SICHE spent 1988 and 1989 studying in Australia, and is thus aware of modern approaches to health education. He was still abroad at the time of the Regional Education Officers' Workshop which was unfortunate as his input would have been appreciated.

The opportunity to react with him came during my visit to Honiara in March 1990 when, as an AIDAB consultant, I was in the process of developing a three-semester health education course for the Diploma of Secondary Education, to be studied by students training to be secondary Home Economics or Physical Education teachers and which would be implemented by this lecturer.

We discussed a health program for the primary certificate course. Two possible semester courses were suggested which could also be adapted for in-service and part-time training. Outlines of these two courses are as follows:
1. YEAR ONE.

This one semester course should be a "personal health" course, aimed firstly to educate the students about ways to prevent the many health and social problems occurring in Solomon Islands. Justification for this approach was the fact that most students did not have the opportunity to study new approaches to health education at school, so they have inadequate knowledge of the content of this subject.

Furthermore ignorance can lead to practices that are detrimental to health, and many students, knowingly or unknowingly, may have adopted behaviour that is harming their health. Therefore the second aim of this personal health course would be to challenge the students to examine critically their own health behaviour.

"Many of you will have some unhealthy habits. What are you going to do about them? Could you give lessons encouraging your students to adopt healthy behaviour, if you do not behave that way yourself?"

Llewellyn, J (1990a, p.2)

The underlying purpose of this introductory health course however would be to enthuse the students about the importance of health and ways to promote it, as without these attributes, they would not be successful health teachers.

"Health education is all about developing desirable health attitudes and behaviour. To this end teachers will be more credible if they:

BELIEVE WHAT THEY TEACH
AND
PRACTISE WHAT THEY BELIEVE"

Llewellyn, J (1987, p. 1)
It was suggested that, in the absence of any other text or reference book written specifically about prevention of health problems occurring in Solomon Islands, that the modules prepared by the consultant (myself) for the secondary health program be used as the context from which to select topics for this personal health course for primary students.

These modules also contained activities designed to involve the secondary diploma students in the problems being studied and many of these would be suitable for the primary certificate students.

2. YEAR TWO.

The second course needs to be a "curriculum" course. Before introducing the new curriculum it would be necessary to explain the purpose of school health education.

Some people may ask why the schools should be involved in health education. Isn't it the responsibility of the medical and health workers to keep the country healthy?

The health professionals are doing their best, but they run up against one very difficult problem. It is very difficult to change the beliefs, attitudes and habits of adults.

It is easier to influence children. So to achieve a healthy nation, the schools must be involved.

Llewellyn, J (1990a, p.2)

An examination of the Scope and Sequence chart would be an appropriate introduction to the range of topics to be taught. This could be justified as follows:
Many people live in villages far from medical clinics. Therefore people need to know how to care for themselves and for each other when they are sick. Informed self-care is one aspect of this health education course.

But it is far more important to prevent sickness. Many of the sicknesses which afflict people in this country are infectious diseases, passed from one person to another in many different ways, often associated with poor personal and community hygiene.

A change in health habits and cooperation with health workers is often needed to reduce the incidence of these diseases which are taking a great toll amongst Solomon Islands people.

Llewellyn, J (1990a, p.2)

It would also need to be stressed that the methodology of health education is also different from other subjects, because the purpose is different.

"The aim of health education is to improve the health of people. How do we do this? Will giving them information about what they are doing wrong achieve this? Sometimes it will, but more often it makes no difference.

So what do we do? We must devise other methods for presenting health lessons. This is where health education is both difficult and challenging. It is also very worthwhile.

Llewellyn, J (1990a, p.2)

There should follow a study of the methodology suitable for health education in primary schools, especially the need to involve the children actively in the lessons in order to promote attitude and behaviour change.

Most of the course time however should be devoted to a detailed study of the primary teachers' health education manuals. Preparation of teaching aids to support the program, peer teaching and demonstration lessons would all be worthwhile activities.
CONCLUSION.

It goes without saying that the success of the new health curriculum will be greatly enhanced if the pre-service program produces graduates who support the philosophy and are well-versed in the content and methodology of health education. When they take up their appointments in the schools, they will be able to guide and assist teachers who have not had this opportunity.

The responsibility for pre-service training was left in the hands of the health education lecturer at the Solomon Islands College of Higher Education and there was reason to believe that he would fulfil this task admirably.

The benefit expected from these graduates however will not be evident in the short term. It is likely that the curriculum will be introduced into the schools two, three or more years before the first of these teachers enter the schools. Hence the importance of the in-service courses cannot be over-stressed.

The practising teachers, both trained and untrained, and especially those in the rural schools, will need a great deal of help to implement this new curriculum, as in many cases the teachers will be learning about health along with their pupils. How this assistance can be provided has been planned. The regional education officers who attended the workshop in Honiara are expected to conduct workshops for the headmasters in the provinces. It will then be the headmasters' responsibility to assist the teachers in individual schools.

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CULTURAL AND PHILOSOPHICAL CONTROVERSY.

Throughout this dissertation reference has been made to controversial issues which were confronted during the progress of this assignment. This chapter deals with two major areas of dissent which had serious repercussions for school health education in Solomon Islands.

Perhaps no issue better illustrates the cultural differences between Australia and Melanesia than the controversy over the inclusion of lessons in the broad area of sex education in the new Primary School Health Education Curriculum. This issue points to the dilemma faced by the external consultant when attempting to introduce a topic into the curriculum which contravenes the traditional culture, and questions the wisdom of such action.

The other controversy was of an entirely different nature. It related to proposals for a new health syllabus for Solomon Islands secondary schools, and concerned different basic philosophies about the nature and purpose of health education.

The latter conflict points to difficulties which may arise when consultants are working in the same general area without thorough briefing about each other's role and the establishment of strong lines of communication, and also to the confusion generated in the minds of the nationals when consultants have a philosophical disagreement.
23.1 SEX EDUCATION IN THE PRIMARY CURRICULUM.

23.1.1 STAND TAKEN BY THE PRIMARY HEALTH PANEL.

This matter was first discussed with the primary health education panel in 1987, when the curriculum was at the planning stage. It was found that there was almost unanimous dissent to the inclusion of the reproductive system as one of the body systems to be studied. This to me was surprising, as the syllabus drawn up by this same committee (but constituted differently) in June 1984 had included "Human Development and Reproductive Systems" in "The Body" topic for grade six.

This presented a predicament, if only because of the pressure being exerted by two external agencies, viz. WHO and UNFPA, for the inclusion of lessons in the broad area of sexuality, in the hope that this would help to forestall many of the present and anticipated problems besetting the nation, viz. mother and child health, population growth, promiscuity, AIDS and other sexually transmitted diseases.

These arguments were presented to the panel members. The proposed method of approach to these lessons was also explained.

After lengthy discussion, it was agreed that this area would be included in the curriculum, but the decision whether to teach the suggested lessons would be left to the education officers in the provinces, headmasters of schools or individual class teachers.
Most panel members believed that the lessons would be acceptable provided the students were segregated for these lessons and a female teacher or health worker instructed the girls and a male teacher the boys.

23.1.2 DISSENT AT THE EDUCATION OFFICERS' WORKSHOP.

The problem erupted again at the workshop for the regional educational officers designed to introduce the new curriculum, discussed in the previous chapter.

No sooner had the "Scope and Sequence Chart" been distributed amongst the delegates at the opening session than one member took the floor and drew everybody's attention to the topic, entitled "How a baby is made", for grade six students, (most of whom would be over 13 years of age and have reached puberty). As can be seen by perusing this chart, (see Appendix A), this topic was but one of some 250 topics across the whole curriculum.

A heated discussion erupted and at one stage it appeared that the whole curriculum was likely to be thrown out before it was even considered.

It is worth noting that with one exception, a female curriculum adviser, all the delegates were male Melanesians of high standing in the Ministry of Education. They carried not only "big man" status in their villages, but also high status in the government as administrators and/or school inspectors at national and provincial level.
My own interpretation, albeit unsubstantiated, as I witnessed the emotive debate which ensued on this topic, was that much of the venom was directed at me, a woman from another culture attempting to interfere with the traditional education of the Solomon Islands children.

23.1.3 SUPPORT FROM NATIONAL MINISTRY OF HEALTH.
This matter received further attention when "Family Health, Sex Education and Population Education" was the topic for consideration at the workshop for a whole day.

The introductory lecture was given by the national under-secretary for the Ministry of Health and Medical Services, Dr. Jimmy Rodgers, a qualified medical practitioner who is very concerned about this problem and was instrumental in preparing the document, "The National Population Policy", for the Government. Dr. Rodgers is an eloquent speaker and being a national himself was able to answer the concerns of the delegates very convincingly.

There followed an explanation of the purpose of the lessons led by myself and supported by Dr. Rodgers, group discussions of individual lessons in the manuals, and plenary session.

Suggestions for changes in the lessons which would make them more culturally acceptable were made, but these did not receive unanimous support.
Several days later, Dr Junelyn Pikacha addressed the meeting on the subject, "Mother and Baby Care". Dr. Pikacha belongs to a very select band of national women medical practitioners, in fact she was the first Solomon Islands woman to graduate in medicine. She is now director of Mother and Child Health in the Ministry of Health.

Dr. Pikacha gave an excellent address on the problems of mothers in the villages and it would be hard to believe that anyone listening to her would doubt the importance of sex education in the curriculum.

Informal debate.

In spite of this support, it was apparent that this controversy was not going away, as it was the subject of informal discussion throughout the workshop.

This however was extremely important, as it allowed the education officers to clarify their own attitudes and beliefs about this issue in dialogue with their peers, before they returned to the isolation of their responsibilities in the provinces.

23.1.4 FINAL QUESTIONNAIRE.

To ascertain individual attitudes to this issue at the end of the workshop, questions about Sex Education were included, as Part D, in the Workshop final questionnaire. The findings were as follows:
EDUCATION OFFICERS' WORKSHOP QUESTIONNAIRE.

POST-TEST

PART D: SEX EDUCATION

1. Do you think sex education lessons in grade 6 would
   a) encourage young people to experiment with sex,
      YES 6
      NO 6
      UNDECIDED 1
      NO COMMENT 4
   b) prevent unwanted pregnancies,
      YES 9
      NO 2
      NO COMMENT 6
   c) reduce incidence of sexually transmitted diseases,
      YES 11
      NO 2
      NO COMMENT 4
   d) protect young people from AIDS?
      YES 9
      NO 2
      NO COMMENT 6

2. Has your attitude to the inclusion of sex education in the curriculum changed during this workshop?
   YES 6
   NO 7
   NO COMMENT 4

If YES, what made you change your mind?

"Understanding what should be done should be encouraged."

"Sex is a part of life. We just got to strive and live to control our feelings."

"Will enable young people of both sexes to take more care of their bodies and promote awareness of health matters."
"Cultural and religious beliefs keeping this a private matter overlooks certain disadvantages, e.g. STDs, AIDS."

"It must be taught in a respectable manner so people concerned think seriously about it and not something funny."

"Children must be made aware of all the consequences and how to prevent from getting them."

3. Explain your reasons why you think sex education should or should not be given at primary school.

SHOULD BE GIVEN:

"Children have a mind to understand when they are young."

"Can warn children about STD and unwanted pregnancies."

"Should be taught in grade six, as many children will not continue onto secondary school."

"Its about time this subject was taught properly in our schools."

"It must build onto pupils a positive attitude towards sex."

"It should be included in a simple way which children can remember all their lives."

"Should be taught provided the communities understand the importance and the language used is minimised."

"Children leaving at grade six will be responsible for families later."

"Will encourage family planning and avoid unhappy families with less mouths to feed and financial problems."

"Prevent STD which can kill them."

"To take care of bodies and reduce disease."

"Prevention is better than cure."

"Knowledge should be well understood before it gets worse."
SHOULD NOT BE GIVEN

"Will not decrease spread of AIDS."

"Under-age children might be excited when highly emotional-ised and might lead them to explore the practice of sex."

"Mentally defective children will not be able to learn properly and will daydream."

"In our society, sex is a sacred thing (tabu) we don't talk about it in front of young boys and girls. If we did, we'd be thrown out of society."

"It would lead children to have sex at an early age."

"Because of culture differences we should be postponing this to a later date."

"If teachers are not educated properly, they may hand on the wrong information."

"In some areas mentioning sex organs of the opposite sex is forbidden."

4. If you agree that sex education should be included but do not like the lessons in the manuals, what changes would you like?

"There should be no deep or thorough sex terminology words in the lessons."

"Should not be too detailed, but as general as possible."

"Option for teachers to give or not give the part that talks about the penis getting erect, otherwise lessons safe and simple."

"I would rather interested people find the education in books."

"Growth and Development must not be included."

"Not to mention the private parts, as this would arouse sex feelings."

"Don't mention erection of penis and action of penis in vagina. Rather: sperms + ova = baby."

"Should not mention what a boy and girl do before baby is formed, just be general."

"Women teach girls, men teach boys. (3 times)
5. Who do you think should give sex education lessons at school?

- class teachers: 2
- trained teacher: 1
- head teachers: 1
- separately by male and female teachers: 5
- separately by married teachers: 1
- nurse: 2
- health educators: 2
- ministers: 1
- people committed in their Christian life: 1

"Who teaches it is not the concern, the presentation is the concern." 1

No comment because do not agree with sex ed: 3

6. Would you expect opposition from village communities in your province to the introduction of these lessons?

YES: 14

NO: 3

If yes, please explain some of the problems.

The answers given to this request indicate the uneasiness felt by the majority of the delegates in three different areas: cultural mores, the community reaction and teachers' fears.

a) Cultural mores.

"It is against custom."

"Sex is discussed only in the dark by wife and husband."

"Cultural and religious beliefs against it." (3 times)

"It is tabu to talk about sex, especially in mixed groups."
b) Community reaction.

"Community would not want to allow their girls to school for fear of teachers teaching sex that would lead to male teachers having sex with school children."

"Adolescent girls won't be allowed to school."

"Most parents are not educated."

"Older people do not accept change."

"Parents will be annoyed."

"Community might ask teacher for compensation."

"Teacher might use lessons wrongly to suit his own ends."

"It may allow some teachers to teach "Play Boy books" instead of sex education."

"Community opposition expected at the beginning, but if proper explanation given change will take place."

(This last comment was expressed by three respondents, and gives a ray of hope.)

c) Teachers' fears.

"Teachers would be called Mr. Sex."

"Children will feel shy."

"It has never been taught before."

"Ignorance about it."

"No proper or qualified person to do it."

"Expected and suspected role of the teachers."

"Ugly rumours about the teachers - gossip, mistrust."

"People will not accept teachers who teach it."

"Teacher creates problem for himself."

"Traditional teachers will resist."
DELIBERATIONS.
The above findings pointed very decisively to the fact that while some of the provincial education officers were supportive, on the whole the schools and the community were not yet ready for the introduction of sex education lessons into the primary schools, especially the rural schools.

The matter was discussed further with the members of the health education panel and it was agreed that the lessons on "How a baby is made" were causing the most problems. In fact it was probably the explicit language used which was offensive, rather than the lessons themselves. Melanesians never mention the names of the sex organs. This is taboo.

The following decisions were made in consultation with the Primary Health Education panel.

1. "How a baby is made" would be included in the grade six manual, with the proviso that these lessons are optional. Girls and boys should be separated for these lessons, which should be given by male and female teachers who are comfortable with and knowledgeable about the topic, or by an instructor (nurse, health educator or pastor) who is acceptable to the community.

2. Names of the sex organs and other references to the sex act will be removed. A statement which appeared to be culturally acceptable was:

Sperm cells are placed in the woman's body when a man and woman make love. This is a very sacred act and is part of God's plan. It should only happen between a husband and wife.
3. Approaches would be made to the community health educators to support the school program by conducting programs in the villages.

4. The content and methodology of education for sexuality should be included as a matter of urgency in in-service and pre-service training of teachers.

There appeared to be less opposition to sex education lessons in the secondary schools, although the motive for this may have been "passing the buck". Since the children leave their villages to attend secondary school as boarders, the village communities have less knowledge of and control over the curriculum.

It was however an appreciation of the needs of young people who do not have the benefit of secondary schooling to have the benefit of this knowledge which will be important to them as they enter adulthood which changed the attitude of many education officers to the inclusion of sex education in the primary school health education curriculum.

The revised lesson notes for the topic "Starting a New Family" can be found in Appendix B.

CONCLUSION.

The introduction of sex education into school curricula, especially in the primary school, has caused, and still causes, much controversy throughout the world, so opposition to this initiative in Solomon Islands was not unexpected.
Many parents and others in Western communities maintain that instruction in this sensitive area is the responsibility of the family. However, the fact that many parents do not fulfill this important obligation, so their children learn about sexuality (albeit often inaccurately) mainly from their peers and the media, has been the chief argument for the inclusion of sex education in school curricula. However, even today in a so-called sexually liberated society, such as Australia, which is at great risk from AIDS and where other sexually transmitted diseases are rife, whether sex education should be given to primary school children is still a matter of considerable debate, and many teachers refuse to become involved.

To understand the reaction in Solomon Islands, it is necessary to go back many decades in time and also to attempt to understand sexual taboos associated with the traditional Melanesian culture. Traditional customs before and after the arrival of "white man" were related to me by a Solomon Islands nursing sister:

Young men and women were segregated in the village. They lived in separate huts. The men went to sea to fish. When they returned, the women were sent to the gardens. There was little opportunity for young men and women to get together and this was also strictly controlled by the village chief.

They were not allowed to marry until they were about 40 years of age. Then after two or three babies, the women reached menopause. Hence there was no population problem.

This all changed when the missionaries arrived. Young people were married early, and babies were seen as blessings from heaven.
Thus, devoid of Western influence, and the many other problems introduced in its wake, these traditional Island people would have no need for "Western" sex education. However, Western influence is a strong force. As explained in chapter 8.4, Solomon Islanders have opted for a cash economy and the material benefits of modern technology. A rapid increase in population and a multitude of associated problems, including malnutrition, STDs and the threat of AIDS, have unfortunately gone hand in hand with progress. This, I believe, has made the ethical debate about sex education in the schools somewhat redundant.

This issue however was strongly debated in the workshop and it is interesting to note that some delegates modified their earlier stand, as indicated in their responses in the questionnaire, but most remained very concerned about the cultural ramifications.

In retrospect, my personal reaction to this controversy is that as a consultant from a foreign culture it would have been easier to omit all lessons pertaining to sexuality, explaining to WHO that changes in the curriculum of this magnitude and sensitivity should be initiated and carried through by the nationals themselves.

However, at that time the nationals possibly lacked the necessary knowledge and skills for this task. Thus the lesson plans I developed at least gave them a framework to adapt to suit their own needs. This in fact may have occurred when the health panel made the final editorial changes to the manuals during 1990.
23.2 HEALTH EDUCATION IN THE SECONDARY CURRICULUM.

The situation regarding a health education curriculum for Solomon Islands secondary schools became quite confused. As explained in chapter 2.3, the original WHO terms of reference for this project included lessons for secondary as well as primary schools, but when it was recognised that a primary curriculum was the most urgent task, it was agreed that a secondary health curriculum might be considered later when the primary project was completed.

Dr. Rodgers, under-secretary in the Ministry of Health, kept this issue alive by reminding me on occasions that he hoped I would continue my work when the primary curriculum was complete and develop a secondary curriculum. This however was obviously not conveyed to the Ministry of Education, as other events to be described indicate.

On my numerous visits to Honiara, when seeking unofficially to lay the foundation for a future secondary health curriculum, I became aware that amongst the secondary curriculum decision makers there was little interest in Health as a curriculum subject. It was claimed that health topics were taught within other subjects, such as Home Economics, Science, Social Studies and P.E., and this was considered adequate. Furthermore, my status as a WHO consultant developing the primary health curriculum, and in their eyes not a secondary education consultant, was a barrier to constructive dialogue.
In 1988, a Diploma course was introduced into the Solomon Islands College of Higher Education for the local training of secondary school teachers, supported by Australian and New Zealand aid. The project was managed by W. D. Scott, International Development Consultants Pty Ltd, which appointed consultants from these two countries to work fulltime with the nationals in Honiara for three years to develop the tertiary diploma course, assist with the lecturing and write teaching modules for the major studies. Minor studies received less assistance. Consultants were appointed to write modules on a part-time basis. Health was coupled with Physical Education as an optional minor study, the purpose of which was to equip P.E. teachers to teach Health in the secondary schools.

An Australian consultant was appointed in 1988 to write the P.E. modules, but he declined to write the Health modules on the grounds of his unfamiliarity with the local situation. When seeking a person to fill this gap, the course coordinator for W. D. Scott became aware of my input into the primary health curriculum. He invited me to write the Health modules for three semester courses to be studied in years 1, 2 and 3 of the Diploma course which I agreed to do when the primary health teachers' manuals were complete.

Negotiations were finalised in Honiara in December 1989. As a secondary Health syllabus did not exist, there was no framework within which to work. When I sought guidelines from the course coordinator, he replied, "You are the expert. You know what to do."
Believing I might one day have the opportunity to develop a secondary health curriculum, I had in mind the ways the various themes introduced in the primary school might be developed. Therefore the modules I prepared for the tertiary diploma to train the future health teachers were based on current health and social issues of Solomon Islands, as well as topics of international concern.

Meanwhile, while I was writing these Health modules in Australia in January, 1990, and unbeknown to me, another consultant was engaged by the same organization to review the secondary P.E. syllabus. (It was explained in chapter 14.1 that this syllabus was due for major review in 1990.) During a brief visit by this consultant to Honiara in January, the national secondary curriculum coordinator was offered for consideration a syllabus for "Health and Movement Studies" developed for Australian secondary schools to become the new Solomon Islands P.E. and Health syllabus.

I became aware of this syllabus when I visited Honiara in March, 1990, and was alarmed about the Health component for several reasons. Firstly, Health Education was but one of five components of this course, the others being P.E., Sport, Dance and Recreation, so was disadvantaged in time allocation. By contrast, Health and P.E. received equal status in the tertiary program. Secondly, and more importantly, I believed that the health content and the approach suggested, while appropriate for Australian schools, did not address the serious health issues in Solomon Islands.
(In a telephone conversation with this consultant after my return to Australia, he admitted that during his short stay in the country he had had little opportunity to learn about Solomon Islands, the culture of its people, and the health and social problems besetting the country.)

However, another urgent problem arose, viz. the modules written for the pre-service training of the secondary health teachers bore little resemblance to the Health component of the Health and Movement Studies syllabus. Obviously attempts had to be made to resolve this matter.

An immediate interview with the secondary curriculum coordinator was arranged to discuss this dilemma. I requested the postponement of the implementation of the new Health and Movement Studies syllabus until the matter had been carefully considered. I also suggested that the nexus between Health and P.E. might be broken and a new subject, Health Studies, should be introduced as a compulsory course for all students. This officer however became quite confused and annoyed when the new syllabus was questioned, insisting that she was satisfied with the "Health and Movement Studies" syllabus which had been presented to her by a "legitimate" education consultant. (This lady, a Solomon Islands Catholic nun, was acting, perhaps unwilling, as secondary curriculum coordinator while a permanent appointee was being sought. She had been my friend for three years, and still regarded me as a WHO consultant concerned about "sickness stuff", not an education consultant.)
Thereafter this issue turned into a philosophical battleground about the purpose and place of health education in the Solomon Islands secondary curriculum. It became a very emotive issue amongst national and expatriate staff in the Ministries of Education and Health, and at the College of Higher Education.

The controversy centred firstly on the association of Health with Physical Education in the secondary school curriculum, and whether this was indeed appropriate in the present day in a developing Pacific Island State. Secondly there was a difference of opinion about the content and approach adopted. The approach which I believed was appropriate for a developing country favoured a "prevention model", giving precedence to the prevention or alleviation of the many infectious diseases and other health and social problems which beset the village people, as discussed in this thesis. The "Health and Movement Studies" syllabus concentrated on Western lifestyle issues, fostering positive health and physical fitness through "health promotion" activities.

Obviously a balance of the two approaches was necessary to cater for rural and urban lifestyles in Solomon Islands, and the present and future needs of students in provincial and national secondary schools. This could best be resolved by discussions involving both consultants, as well as national teachers and curriculum officers, but this was not possible at the time. The matter had not been resolved when I departed from Honiara.
Therefore, to support my case for the breaking of the nexus of Health and Physical Education and the development of a secondary Health Studies course appropriate for Solomon Islands, a submission was prepared for later consideration.

23.2.1 THE CASE FOR HEALTH STUDIES IN SECONDARY SCHOOLS.

The following is the text of the submission presented to the Solomon Islands Ministry of Education, the Department of Teacher Education at the Solomon Islands College of Higher Education and the course coordinator for W. D. Scott Consultants, managing the Diploma of Secondary Education Project in Solomon Islands for the Australian International Development Assistance Bureau.

During the last three years, a comprehensive health education curriculum has been developed for the Solomon Islands primary schools. This project was supported by the Ministry of Health and Medical Services and the World Health Organization, in the hope that educating children about ways to care for their health will eventually produce a healthier nation.

The primary curriculum covers most of the health issues presently causing concern in the villages and towns throughout Solomon Islands. It is hoped that this will provide the children who are unable to attend secondary school with sufficient knowledge and motivation to make changes in their lifestyle to improve their own health and that of their families, and to bring about changes in their environment which will prevent many of the communicable diseases and other health problems which now take such a human and financial toll in this nation.

It is obvious however that these issues can only be treated at an elementary level in the primary schools. Unless these issues are consolidated in the secondary schools, it is feared that much of the impact will be lost. On the other hand, if health education is given the status it deserves in secondary schools, future village leaders and national decision makers will understand the importance of health and be able to guide the nation in this direction.
Up to this point in time, Health Education has not received much attention in the national and provincial secondary schools. It is claimed that some health topics are taught in other subjects. Home Economics teachers certainly make their contribution, especially in the areas of Nutrition and Hygiene in the Home, but Home Economics is an elective subject taken mostly by the girls.

At some time in the past, it appears a decision was made to group Health Education and Physical Education together, no doubt following the pattern set by some educators in other countries. This nexus however is often disadvantageous to Health Education. Children prefer to be outside engaging in physical activities, so health lessons are relegated to rainy days and unpopular time slots.

The Solomon Islands secondary curriculum is presently being revised, but the situation regarding Health Education is extremely confused.

During 1989 the Home Economics syllabus was revised to include more health topics because of the concern that this very important subject was being neglected, but the result is an overloaded syllabus.

At the beginning of 1990, a syllabus for a new subject called Health and Movement Studies was adopted, in which Health is one of five components, the other four being Physical Education, Recreation, Sport and Dance. In time allocation, this is very disadvantageous to Health Education.

Furthermore this course emphasises the promotion of health and physical fitness, but neglects the other health problems of great concern in this country.

Spokespersons for other subjects still maintain that "health is everybody's business" and all subjects should deal with health issues as they arise. The problem with this approach to Health Education is that some issues will be taught by everyone and over-emphasized, while other issues will be neglected.

The solution is to accept Health Studies as a subject in its own right. All health issues, at personal, village, town, national and international levels can then be taught in a logical sequence and given the appropriate emphasis.

Such a course would not exclude teachers of other subjects from discussing health issues when they arise in other lessons. In fact this would be desirable. Home Economics would still teach nutrition and other matters pertinent to the home, and Physical Education could still reinforce areas pertaining to physical fitness.
Solomon Islands now has a comprehensive Health Education curriculum in the primary schools which is being viewed with interest by other developing nations. If the above suggestion is taken up, Solomon Islands will also be at the forefront of secondary school Health Education in the developing world.

Recommendations.

1. The nexus of Health Education and Physical Education should be broken and a new subject, called Health Studies, should be introduced into the secondary curriculum and should be compulsory for all students in Forms One, Two and Three.

2. A meeting of lecturers, curriculum development officers and consultants representing Health Education, Physical Education, Home Economics, Science, Social Studies and other interested parties should be called to resolve this matter.

3. A specialist in school health education who understands the culture and the health problems of Solomon Islands should be engaged to develop the new curriculum.

4. Both Home Economics and Physical Education teachers could be trained to teach Health Studies by taking the Health Education Options in their Diploma course.

5. During the implementation of this new curriculum, the teachers should be given as much assistance as possible to develop teaching units.

Llewellyn, J. (1990b)

THE OUTCOME.

Information was forwarded to me in late 1990 through the diploma course coordinator in Honiara that the Health Education modules in the diploma course had been examined in the light of drafts of new secondary syllabuses for Home Economics and Health and Movement Studies.

The following table was enclosed to indicate how the various modules written for the diploma course were spread across Home Economics and Health/Movement Studies.
### TABLE 23.1

**HEALTH EDUCATION IN SOLOMON ISLANDS SECONDARY SCHOOLS**

<table>
<thead>
<tr>
<th>DIPLOMA IN TEACHING (SECONDARY)</th>
<th>HOME EC. SYLLABUS</th>
<th>HEALTH/ MOVEMENT SYLLABUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNIT 1.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. What is health?</td>
<td></td>
<td>A2, B1</td>
</tr>
<tr>
<td>2. What are the problems?</td>
<td>Form 5</td>
<td>A2, B1</td>
</tr>
<tr>
<td>3. Health ed. methodology</td>
<td>Form 5</td>
<td>A2, B1</td>
</tr>
<tr>
<td>4. Causes of accidents</td>
<td></td>
<td>B1</td>
</tr>
<tr>
<td>5. Road &amp; water safety</td>
<td></td>
<td>B1</td>
</tr>
<tr>
<td>6. Fire &amp; electricity</td>
<td></td>
<td>B1</td>
</tr>
<tr>
<td>7. Poisons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Food &amp; nutrition</td>
<td>Form 2,3,4</td>
<td>A2</td>
</tr>
<tr>
<td>9. Malnutrition</td>
<td>Form 2,3,4</td>
<td>A2</td>
</tr>
<tr>
<td>10. Improving nutrition</td>
<td>Form 2,3,4</td>
<td>A2</td>
</tr>
<tr>
<td>11. Dental disease</td>
<td>Form 3</td>
<td>A2</td>
</tr>
<tr>
<td><strong>UNIT 2.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Infectious diseases</td>
<td>Form 5</td>
<td>A2</td>
</tr>
<tr>
<td>2. Posture &amp; movement</td>
<td></td>
<td>A2</td>
</tr>
<tr>
<td>3. Breathing, respiration</td>
<td></td>
<td>A2</td>
</tr>
<tr>
<td>4. Respiratory illnesses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Heart, circulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Digestion</td>
<td>Form 4</td>
<td></td>
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<tr>
<td>7. Eyes</td>
<td>Form 1</td>
<td></td>
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<tr>
<td>8. Ears</td>
<td>Form 1</td>
<td></td>
</tr>
<tr>
<td>9. Skin</td>
<td>Form 1</td>
<td></td>
</tr>
<tr>
<td>10. Malaria, dengue fever</td>
<td>Form 3</td>
<td></td>
</tr>
<tr>
<td>11. TB, leprosy</td>
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<tr>
<td><strong>UNIT 3.</strong></td>
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</tr>
<tr>
<td>1. Pollution</td>
<td>Form 1,3</td>
<td></td>
</tr>
<tr>
<td>2. Safe water</td>
<td>Form 1,3</td>
<td>B1</td>
</tr>
<tr>
<td>3. Sanitation, toilets</td>
<td>Form 1,3</td>
<td>B1</td>
</tr>
<tr>
<td>4. Living environment</td>
<td>Form 3</td>
<td></td>
</tr>
<tr>
<td>5. Self esteem, feelings</td>
<td></td>
<td>A1</td>
</tr>
<tr>
<td>6. Relationships</td>
<td></td>
<td>A1</td>
</tr>
<tr>
<td>7. Drugs</td>
<td></td>
<td>A2, A4</td>
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<tr>
<td>8. Tobacco, betel nut</td>
<td>Form 3</td>
<td>A2, A4</td>
</tr>
<tr>
<td>9. Alcohol</td>
<td>Form 3</td>
<td>A2, A4</td>
</tr>
<tr>
<td>10. Puberty</td>
<td>Form 3</td>
<td>A2</td>
</tr>
<tr>
<td>11. Sex education</td>
<td>Form 2</td>
<td>A2</td>
</tr>
<tr>
<td>12. Population, birth spacing</td>
<td>Form 3</td>
<td></td>
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<tr>
<td>13. Pregnancy, child birth</td>
<td>Form 2</td>
<td></td>
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<tr>
<td>14. Child care</td>
<td>Form 2</td>
<td></td>
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<tr>
<td>15. STD's and AIDS</td>
<td>Form 3</td>
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</table>

**Code:**
A,B - teaching block
1,2,3,4, - form.
CONCLUSION.

1. THE COMPROMISE.

Thus it is seen that an attempt has been made to reach a compromise. The health component of the secondary curriculum is to be shared across two subject areas.

To ensure that the diploma graduates will be properly qualified for this task, students electing both Home Economics and P.E/Health options will study Health Education for three semesters.

Perhaps in the Solomon Islands context at the present time, this compromise is the best that can be hoped for, although it is matter of some professional disappointment that the original hopes and aspirations for a Health Education curriculum, from infant school to tertiary level, has not been attained.

Maybe the future will take care of itself. If the primary curriculum fulfils its objectives, Solomon Islands educators in the future may see the need to consolidate with a secondary Health Studies curriculum.

This may well be accelerated when information filters through to Solomon Islands that the nexus between Physical Education and Health Education has indeed been broken in many states of Australia as well as other countries, and Health Education has been upgraded to core subject status.
2. THE CONTROVERSY.

That this controversy should ever have arisen remains a matter of considerable regret. It points to several weaknesses in overseas educational consultancy programs, especially as they relate to school health education.

1) It was inexcusable that two consultants were appointed by the same aid organisation to work in the same country in the same subject, one at secondary and the other at tertiary level, without knowledge of each other's input. A meeting between us should have been arranged in Australia before we commenced our individual tasks, so that we could have shared our ideas, especially as I was the consultant for the primary school health curriculum.

That this meeting was not arranged points either to serious weaknesses in administration, or more probably lack of understanding of the nature and purpose of health education by the program coordinators. It also supports Treadaway's (1986) concerns about the lack of communication between primary and secondary curriculum writers, and the link between Standard 6 and Form 1, discussed in chapter 14.2.

2) It also points to changes which have occurred in educational aid to Solomon Islands. Whereas in the earlier years of secondary curriculum development a collaborative tradition was established which was not restricted by time and financial budgets, this has today been usurped by strict project management, so that international consultants are now required to work within limited time frames and budgets.
While agreeing that this change was necessary to avoid wastage of overseas aid, at times it is possible that the restrictions are too severe. In my case, I was required to prepare three tertiary semester courses in six weeks. It was possible that the consultant engaged to review the secondary Health and P.E. syllabus had to work within a similar time frame which limited his opportunities to become familiar with the Solomon Islands context.

3) This problem was the more serious because of the controversial nature of health education and the fact that there is no established philosophy to which all subscribe. The ideological debate which ensued in Solomon Islands about the purpose and place of health education in secondary schools was obviously confusing to the national secondary curriculum coordinator and other national educators who look to overseas education consultants to solve problems, not create them.

4) Finally, I believe that direct transfer of a health education curriculum from an advanced industrial nation to a tropical developing country, under any circumstances and for any reason, is completely inappropriate. That this was even considered as a quick and easy way to provide a secondary health curriculum for Solomon Islands by the consultant or the project managers is hard to believe. It showed complete lack of understanding of the local context which includes the health and social problems, the education system and culture of the Solomon Islands people. This dissertation has attempted to show why this is so.
PART F

CONCLUSION
24. SUMMARY OF FINDINGS.

This study has presented a model for the development, trialling and implementation of a comprehensive, sequentially-developed, centrally-based health education curriculum for the primary schools in Solomon Islands, and has discussed the role of an external school health education consultant engaged to facilitate this task.

The need for health education in schools in developing countries should not be questioned. It is an important means of promoting the health of children, and hopefully adults as well, and has received an impetus from the UNO Declaration of the Rights of the Child, and the WHO/UNICEF (1986) Report, "Helping a Billion Children learn about Health".

This study has shown that the need for health lessons in the Solomon Islands schools was an urgent priority because of the range of serious health and social problems afflicting the people, especially in the rural villages where access to medical care is often problematical and the village people have little understanding of ways to care for their own health. Primary schools needed to become involved because so few village children gain entrance to secondary school.

The development of a health education curriculum for the primary schools however proved to be a problematic strategy for educational innovation because of the unique interdisciplinary skills required to carry out this task.
The necessary skills were not possessed by the nationals themselves. When several attempts to produce such a curriculum failed, the World Health Organization became involved and I was engaged as an external consultant to provide assistance.

Many factors made the consultant's task of facilitating the development of a health education curriculum difficult. These factors included unfamiliar physical and social environments, especially the traditional rural lifestyle of the majority of the population, a range of infectious diseases, many of which are rare today in developed countries, and the formalistic village schools frequently staffed by untrained or poorly trained teachers with little or no formal knowledge about health and health education.

Of special importance to this project in Solomon Islands was the need to establish cross-cultural communication and rapport with nationals involved in the project, including health personnel, education officers, and especially the consultant's national counterpart.

It is appropriate therefore to summarize two aspects of this endeavour, firstly knowledge gained about school health education in a developing country, and secondly the various factors which impinged upon the role of the external consultant and made this endeavour a problematic enterprise.
24.1 SCHOOL HEALTH EDUCATION IN A DEVELOPING COUNTRY.

From this experience in Solomon Islands, much was learnt about school health education in developing countries. The conclusions which follow are presented as a contribution to the knowledge of professionals working in this area of expertise.

24.1.1 NATIONAL SUPPORT.

National support is imperative if a school health curriculum is to be successfully developed and implemented in a developing country and this embraces the following:

(1) The government of the nation must be aware of the need for school health education and support its implementation into the curriculum.

Such support was given by the Solomon Islands government, stemming from the National Education Policy Review report, "Education for What?" (1973). This was crucial to the initiation and progress of this project. Health was included as a curriculum subject when attempts were made to develop a new primary curriculum as part of the World Bank Primary Education Project in 1983. At this time, a Health and Physical Education curriculum coordinator and a Health Education Panel were appointed to be responsible for the development of a new Health Education curriculum.

It was at the invitation of the Solomon Islands government that I became involved in this curriculum project, and I received official government support at all times.
(2) There needs to be effective collaboration between the Ministries of Health and Education. Unfortunately this was a source of difficulty throughout this project, since never before had these two ministries been required to cooperate. Difficulties stemmed from lack of understanding of each other's role.

Officers in the Ministry of Health and the World Health Organization had no understanding of the complexities of school curriculum development which was evident in the fact that insufficient time was allowed for developing the curriculum, writing the teachers' manuals, and evaluating and implementing the program. On the other hand, officers in the Ministry of Education had inadequate knowledge of the health and social concerns in the nation and the ways in which education can intervene. (This issue will be discussed further in the next section.)

(3) The Ministry of Health needs to have accepted the philosophy of primary health care which, according to Ling (1987), calls for many changes in the delivery of health services, including changes in attitudes and behaviour of health professionals themselves.

Perhaps because of the inadequacy of health and medical services throughout the Solomon Islands provinces, the Ministry of Health was placing much dependence on primary health care and, for this reason, interest in and support for the new health curriculum from the nationals was forthcoming at all times.
(A few ex-patriate medical personnel however were scornful of attempts to teach village children how to keep healthy.)

(4) The Ministry of Education needs to provide the means and enthusiasm to implement a health curriculum into the schools. Support from national education officers, including curriculum coordinators, school inspectors and school principals is crucial. If this is missing, teachers will not be encouraged to implement the new curriculum.

In the context of this project, it was found that these key personnel in Solomon Islands knew very little about health and health education and were insecure in their role as teachers, curriculum developers and administrators of this subject. Hence they needed a great deal of assistance, provided through informal discussions and workshops, to develop an understanding and appreciation of the objectives, content and methodology of this subject area.

24.1.2 THE CONTENT.

A presage step for content selection requires a careful and thorough situational analysis and health needs assessment. The diseases afflicting the community, the physical and social environment, and the culture, customs and beliefs of the people must be investigated in order to determine the nature and cause of the problems and how educational intervention may be applied.

It has been argued that in a developing country, such as Solomon Islands, the content of a health education curriculum must focus on primary health care.
This includes:

- personal and home cleanliness and hygiene,
- caring for the body, especially eyes, ears, teeth, skin, hair and feet,
- prevention and control prevailing health problems, especially major infectious diseases,
- home nursing,
- accident prevention and first aid,
- wise use of available foodstuffs,
- maternal and child care, and family planning,
- use of health services,
- improvement of the environment, especially disposal of rubbish, provision of a safe water supply and basic sanitation.

In addition, topics concerned with urban lifestyle problems need to be included, such as:

- wise use of produce bought from the stores,
- use and misuse of drugs, smoking and alcohol,
- road safety,
- sexually transmitted diseases and AIDS.

Topics concerned with promotion of good health also have a place in the curriculum, e.g.

- understanding and caring for the body systems,
- growth, development and sexuality,
- physical fitness, exercise and rest,
- emotional health and self esteem,
- social health and relationships.
The emphasis given to the various topics should be determined by local needs. This however presented a dilemma in Solomon Islands, as government policy determined that the curriculum was centrally developed and sequenced.

24.1.3 LEARNING EXPERIENCES.

Didactic presentation of health facts will readily be accepted by the children who are accustomed to rote learning in order to pass examinations. However, the danger is that such information would be kept for that purpose alone. Hence activity based lessons are essential.

In Solomon Islands, it was found in the lesson trials that in general the most successful approach with younger children was through stories, action songs, games and role play, and activities to practise healthy behaviour. In higher primary grades, learning experiences were broadened to include problem solving and community-based activities, with health information given as appropriate, followed by discussion and interaction to allow for values clarification and attitude change.

Because most teachers lacked experience with other than "chalk and talk" methods of teaching, it was important that the methods suggested were simple, straightforward and easily implemented through appropriate support materials.

Dependence was not placed on teaching aids, as it was found that commercially produced aids are either unobtainable, too expensive or unsuitable and village teachers did not have the time, skills or materials to prepare their own.
24.1.4 COMMUNITY OUTREACH.

A school health curriculum in a developing country must have outreach to children in the community served by the school who have not had the opportunity to participate in formal schooling.

A strategy for reaching unschooled children is the "each one teach one" involvement idea which utilizes the strength of peer influence. Such activities have an added advantage, in that while the participants are working on outreach to others, they themselves are learning both intellectually and practically, becoming more aware of their own attitudes and practices. (Child-to-Child, 1987)

The children's parents should also be involved in the school health program, as personal, family and community hygiene and other health-related habits are rooted in the older members of the village community. The "Teacher-Child-Parent" approach utilises activities to be completed at home with assistance from parents. The expectation is that in this way parents will learn too. (UNICEF, 1988)

It must be remembered however, that unless outreach programs are supported by community health education programs, dramatic changes in health behaviour are unlikely to occur, because in traditional societies health-related attitudes and practices are firmly entrenched as part of the culture, and there is a tendency for school knowledge to be kept for school and home knowledge for home.
24.1.5 ASSISTANCE FOR THE TEACHERS.

1. PRE-SERVICE TRAINING.

A key element in a school health program is the pre-service training of teachers for this important task. It should be included in the curriculum for all teachers.

However, the reality in Solomon Islands, and no doubt in many other developing countries, is that the majority of primary teachers are untrained. They take up an appointment in a village school after two or three years of secondary education and teach as they were taught. Furthermore, even for those selected to receive some training, there may not be a health course in the teacher education program.

The implementation of pre-service health education courses in the teacher education program however should be given priority, so that trained teachers of the future will be equipped with the knowledge about health and the methodology of this new subject, and this was put into effect at the Solomon Islands College of Higher Education.

Meanwhile, assistance must be provided for the practising teachers in other ways.

2. REFERENCE BOOKS AND TEACHING RESOURCES.

One method of providing assistance for the teachers would be supplying the schools with reference books and teaching aids, but unfortunately most materials developed in abundance for schools in Western countries are unsuitable.
Very few authors have written health educational material specifically for the developing world. Few publishers are willing to become involved, unless the publications are subsidised. Even then, it is often impossible for developing nations to purchase these materials because they do not have the funds available. For this reason, some aid agencies, such as UNICEF and Save the Children Fund, are now becoming involved and some countries are beginning to produce their own health education material.

The Health Education Unit in the Ministry of Health and the Curriculum Development Unit in the Ministry of Education were aware of this problem and agreed to assist by producing some "health" charts and posters for the schools.

3. TEACHERS' MANUALS.

In view of the above, and in line with the approach adopted with other primary curriculum subjects, Solomon Islands Ministry of Education gave priority to the preparation of teachers' manuals.

These manuals, which were prepared as an important part of this project, were designed to be both reference books for the teachers and to provide full details of all the health lessons the teachers would be required to give.

24.1.6 EVALUATION OF THE CURRICULUM.

Evaluation was an extremely important component of this project. It began with preliminary discussions about the content of the curriculum with the National Primary Health Education Panel which continued until consensus was reached.
It was necessary to evaluate the curriculum continually during the development process because of the uncertainties surrounding this project. To this end, evaluation focussed on three broad areas:

(1) The accuracy of health and medical content and suitability of intervention strategies used was verified in discussions with medical and health personnel.

(2) The cultural appropriateness of the lessons was determined in various ways when interacting with teachers, health educators and others in the community.

(3) The acceptability of the teaching program, i.e. the teachers' manuals, by classroom teachers and the Ministry of Education involved an extensive trialling program in schools and feedback from workshops.

Difficulties experienced when trialling the program will be discussed in section 24.2.

24.1.7 IMPLEMENTATION OF THE CURRICULUM.

Financial and logistic considerations may present difficulties when attempting to gather teachers together in one place for an in-service course to introduce a new curriculum. For example when schools are located on isolated islands and atolls, or in areas not serviced by roads, as is the case in Solomon Islands.

Hence the procedure adopted in Solomon Islands to introduce the new curriculum was as follows:
Stage 1. A workshop for provincial education officers to introduce the curriculum and teachers' manuals.

Stage 2. Workshops for the headmasters in each region conducted by the provincial education officer.

Stage 3. Workshops for teachers conducted by headmasters in individual schools.

Stage 1 was implemented at the end of 1989, unfortunately before the manuals were ready for distribution to schools. Reduced momentum in the final stages of the project was a possible consequence. (This will be discussed further in section 24.2.)

24.1.8 FOLLOW-UP SUPPORT.

Finally, because health education is likely to be a new curriculum subject for primary schools in developing countries, and thus the teachers may lack knowledge of and experience with this subject, there must be continual support, especially for schools in the villages, from health workers and school officials after the new curriculum is introduced.

In Solomon Islands, it is the responsibility of the provincial education officers to provide teacher support. In addition, support was promised from the Health Education Unit, as well as community nurses and village aids.

Such support is believed to be crucial, as without it there is a danger that any initial momentum and enthusiasm generated for the new health curriculum may soon be lost.
24.2 THE ROLE OF THE EXTERNAL CONSULTANT.

From the viewpoint of the external consultant from Australia engaged to facilitate the development of the new health curriculum for Solomon Islands primary schools, this task was indeed a problematic enterprise. Metaphorically speaking, I was thrown into this project at the deep end.

When I arrived in Honiara for the first time in 1987, I had no idea what was expected of me or what difficulties I might face. However, in retrospect, I believe that there are two key issues which determined the direction and extent of the consultant's facilitating role in this project, viz. communication and ownership of the project.

24.2.1 COMMUNICATION.

It is obvious, when reviewing the entire project, that many of the obstacles stemmed from lack of communication at three levels, inter-ministerial, inter-personal and inter-cultural, which overlapped. It is however convenient to consider them separately.

1. INTER-MINISTERIAL COMMUNICATION.

The lack of effective communication and collaboration between the Ministries of Health and Education in the development of a school health curriculum was mentioned in the previous section. A key issue is who is responsible, health professionals or school educators. Inability to resolve this issue is frequently the reason that few, if any, health lessons are given in many schools, in developed as well as developing countries.
There was therefore a need for a go-between, and it was, in effect, to fulfil this role that I was engaged as an external consultant. The terms of reference for my first assignment stated, "In collaboration with the National Health Authorities and with the Ministry of Education ..." I was thus required to work within the Education Ministry, representing the concerns of the Health Ministry and the World Health Organization.

The skills needed for such a role were diverse and multi-disciplinary. There was a need to determine the nature and cause of the health and social concerns in the nation which required at least some knowledge of medical and social science. It was then necessary to decide how educational intervention might be implemented, and since what traditional people do about sickness is tightly bound to their culture, this required some knowledge of anthropology. Finally translation of this information into a school health curriculum required expertise in health education methodology and curriculum development.

Lack of any one of these skills could be responsible for failure to develop a relevant health curriculum, because dependence would have to be placed on others with the appropriate skills who may not be available in a developing country. Alternatively, a quick and easy solution is to translate a curriculum from another country, as occurred with the secondary health curriculum in Solomon Islands, but reasons have been given why this was inappropriate.
Because of my wide professional experience, I believe I possessed the required skills at some level of competence to bridge the gap between the two ministries. There remained however many other obstacles to the development of the health curriculum.

2. INTER-PERSONAL COMMUNICATION.

A very early experience, stemming from lack of inter-ministerial collaboration, was one of rejection. I discovered that the Ministry of Education was not a party to the invitation extended to me by the WHO Country Liaison Officer, representing the Ministry of Health, and since there had been a recent unfortunate experience when another consultant engaged to develop the health curriculum had been discontinued because her work was unsatisfactory, my appointment was viewed with suspicion.

It became obvious that if I was to perform the task for which I was engaged, I had gain the confidence and respect of the health education curriculum coordinator, who was in effect my national counterpart, and other officers in the Curriculum Development Unit. The development of productive inter-personal communication and collaboration with the nationals was a long and tedious process, and entailed social and well as professional intercourse.

Although communication and rapport gradually improved, I believe my status as a WHO consultant prevented my total acceptance as an education consultant by officers in the Ministry of Education.
In addition, continuation of the project was dependent on the approval of the consultant both personally and professionally by officers in the Ministry of Health, since it was they who recommended to WHO how they wished the nation's WHO funds to be allocated.

3. INTER-CULTURAL COMMUNICATION.

It is likely that many of the difficulties experienced when interacting with my national counterpart arose from the cultural differences between us, such as different attitudes to time and work, which caused so much frustration for me, as well as delays in the project.

There were also many other experiences where cultural differences were barriers to progress. For example, it was difficult to obtain the information needed about the health problems in Solomon Islands. With the exception of malaria which is well documented, there were few published or printed reports of previous research about other problems and those that did exist were difficult to locate.

Hence much had to be researched in the field. However, because of the sensitive nature and cultural implications of many health issues, there were unexpected barriers to communication regarding many health problems and customary health behaviour, and also to the inclusion of certain topics, especially sex education, in the curriculum. Thus there was a need for diplomacy, as well as understanding of and sensitivity to the national culture, customs and beliefs.
So important in fact were the inter-personal and cross-cultural components of this project that it could be said that the acceptance of the new curriculum could be determined by the degree to which communication and rapport between the external consultant and national education officers was established.

There is thus a dilemma. In any country, in both developed and developing nations, I believe a health education program should be developed by the nationals themselves to avoid such problems. Yet so diversified are the skills required to carry out this task that educators in developing countries often seek assistance overseas.

A collaborative effort may be the best solution, i.e. a national curriculum officer and an expatriate school health education consultant with knowledge about tropical health problems working together. Such a joint effort between the consultant and the health education curriculum coordinator was planned for this project, but in practice it proved difficult to achieve, as will now be explained.

24.2.2 OWNERSHIP OF THE PROJECT.

Health was designated a curriculum subject in Solomon Islands primary schools in the 1973 Education Policy Review. About ten years later, the development of the health education curriculum was initiated by the Health and Physical Education Committee of the National Primary Curriculum Development (World Bank) Project. There followed attempts to develop the curriculum, but these proved unsatisfactory.
My initial role was to collaborate and facilitate the development of the curriculum. Since at this stage I was feeling my way and learning as I went, I placed much reliance on cooperation and support from the nationals, especially the national counterpart and the Health Education Panel.

The involvement and authority of the Health Education Panel was indeed very important to the progress of the project. This group, representing the Ministry of Education and the Community Health Education Unit, had the ultimate authority to accept or reject the new health curriculum.

The project was established in consultation with this panel when the draft scope and sequence chart was discussed and amended until consensus was reached. The format and content of the teachers' manuals were agreed upon, and sample lesson notes and the children's activities therein were discussed and approved. The panel members were also actively involved in the preliminary lesson trials. In fact, at this stage, it could be said that there was joint ownership of the project.

When I was requested to continue with the project and write the teachers' manuals for all six primary grades, I agreed on the condition that a national was appointed as co-writer to check the suitability of the lessons for the village schools, as I was aware by this time of the formalisitic stage of development of many schools, the lack of training of many teachers and the cross-cultural ramifications of many of the health lessons.
The national counterpart was nominated for this responsibility. His input however was disappointing. He did not carry out many of the duties assigned to him for reasons which were never clearly revealed, but possibly included lack of professional skills in health education and/or refusal by WHO to grant him a financial incentive. During this second phase of the project, there was also insufficient liaison with and guidance from the Health Education Panel, due mainly to the difficulty of bringing the members together for a meeting.

As a result, the teachers' manuals were largely compiled by the consultant working alone in Australia. Periodic visits to Solomon Islands to interact with Ministry officers were considered extremely important, but unfortunately badly timed for the purpose of observing lessons and interacting with the teachers.

Hence, while preliminary lesson trials had confirmed that the approach being adopted was acceptable, during the second phase of the project when there was a need for constant reassurance and validation that the lessons were suitable, the trialling program was less than adequate, and it was disappointing that the Ministry officials were not able to provide the feedback requested.

It is argued that during this second phase the nationals had handed over ownership of the curriculum to the consultant who thus became the innovator, rather than the facilitator.
Feedback at the education officers' workshop, the first stage of implementing the curriculum, was more forthcoming. It is also significant that at this workshop when interacting with his peers, the national counterpart displayed leadership and much enthusiasm for the new curriculum.

Although the Ministry of Education requested the services of the consultant until the curriculum was successfully implemented into the schools, this was not granted by WHO. Instead the Health Education Panel assumed responsibility after the education officers' workshop, conducting the final school trials and making final amendments to the teachers' manuals. Thus ownership of the curriculum had effectively returned to the nationals.

Thus while it was personally disappointing not to be involved in this project until the end, this arrangement should augur well for successful implementation of the new health curriculum into the schools.

24.3 FINAL COMMENT.

It has thus been shown that development and implementation of a new comprehensive, sequentially-developed health education curriculum for the national primary schools in a developing country is indeed a problematic strategy for educational innovation.

However, all the effort will have been worthwhile, if the curriculum is acceptable to the teachers and eventually brings about an improvement in the health of the Solomon Islands people.