THE DEVELOPMENT AND TESTING
OF A METHODOLOGY FOR IDENTIFYING
REASONS USED TO RECOMMEND CURRICULA

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ABSTRACT

This study describes the development of an instrument which would permit educators to carry out more meaningful education goal selection surveys, or "needs assessments", than is presently done. The instrument, called the Reasons Selection Questionnaire (RSQ), enables educators to identify the reasons which people used to judge the worth of educational goals, and provides information needed to select defensible goals. The study was undertaken in the educational setting of a unique post-primary schooling program offered in Honiara, the capital of the Solomon Islands.

The Reasons Selection Questionnaire was field tested using a stratified random sample of people in the community of Honiara, and all the students at the Solomon Island Teachers' College. The data obtained were interpreted to show that the RSQ successfully met appropriate validity criteria, was generally easily understood and completed by the people in the samples, and provided results which had high test-retest stability.

Different analysis strategies, appropriate for the RSQ data, are explored in this study. In addition, suggestions are made for potential applications of, and for further research on the RSQ technique.
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DEDICATION

TO JULIE
Chapter 1

THE PROBLEM

1.00 Purpose of the Study

In recent years there has been an increasing trend to involve the public in the determination of institutional goals. In education the most widespread method of involving the public has been through the use of a set of related procedures called "needs" assessment surveys. This type of survey usually requires the respondent to rank or rate goals or needs for a school district. The underlying assumption is that the highly ranked goals in some way represent a desirable and defensible set of goals.

If educators are not to abrogate their role in education, and yet still make rational curriculum decisions in a society whose members are demanding a role in the setting of educational goals, then they must go beyond simply getting rank orders and ratings of goals from the community. They must begin to attempt to find out why certain goals are considered to be worthwhile, or more worthwhile than others. To do this, educators must have a procedure which will identify the reasons that people in the society characteristically give for or against particular goals. It is the purpose of this study to develop such a procedure.

1.10 Statement of the General Problem

There is a large body of literature (Archambault, 1957; Dearden, 1966; Komisar, 1961; Taylor, 1959) which argues that you cannot defend or justify the choice of a goal, course or "need" in education, or any
other field, unless you have made a serious attempt to give reasons for, and/or against choosing, ranking or rating the goal. In rational decision making, only through the careful consideration and weighing of a complete set of reasons, both pro- and con-, can one come to a defensible decision. However, present "needs" assessments neither attempt to obtain any reasons from the public surveyed nor present any information with the list of potential needs so that the public could make evidence-based decisions.

There is also a large body of literature about how to perform "needs" assessments (Price, 1973; Perkinson, 1961; and the Georgia (1974), New Jersey (1974) and Ohio (1974) State Departments of Education). Much of the literature provides an excellent discussion of procedural techniques but it does not grapple with the problem of justifying the goals or "needs". A recent paper about a "needs" assessment, presented at the Annual General Meeting of the American Educational Research Association in April, 1977, illustrated the difficulty decision makers can get into when they use conventional methods of needs assessments. To quote:

The curious aspect surrounding these data lies with the fact that all groups tended to assign this goal [equality of language opportunity] a relatively low weight. Yet the State Department of Education has mandated that all local districts provide specialized programs for students for whom English is a secondary (sic) language. Faced with this mandate and lacking financial assistance, educational leaders are required to allocate local monies irregardless (sic) of local priorities. (Thompson and Smidchens 1977)

This is a ludicrous situation. If a needs assessment is being performed, then, besides assuming that the public is going to use reasonable grounds to make decisions, the educator is also committing himself to community determination of goals. Yet, in the above example,
the results of the survey went against what the authorities thought "ought to be", and as a result the survey results were ignored.

The one reason the data are "... curious ..." (Ibid.) is that there was no information which could tell the educators why the public ranked the goal low. If the local education authorities had asked for reasons for the rating they might have found that the rating was based on prejudice or ignorance, or perhaps the community didn't know that there were students who required the courses. By obtaining reasons for the decision to rank the goal in a low position Thompson and Smidchens could have begun to justify the final higher priority assigned to this goal.

Obtaining reasons for and against pursuing particular goals goes beyond simply ranking or rating those goals. It is difficult to justify implementing goal A instead of goal B only on the grounds that most people ranked A higher than B on some importance scale. What is relevant are the reasons why A is ranked higher than B. It may turn out that the reasons given for implementing A are nonsensical or untrue or involve immoral actions such as indoctrination, in which case it would not be appropriate to implement A. But that information is not available from present need assessment procedures.

In light of these problems, the general problem addressed in this dissertation is:

Can a procedure be developed to identify the reasons which people would give to support their contention that a particular educational goal is worthwhile or not worthwhile?

1.20 Statement of the Specific Problems

For the purposes of solving the general problem of this
dissertation, an educational goal will refer to any potential curriculum options recommended for a particular schooling situation. Thus, the general problem can be broken down into three more specific problems. They are:

**Problem 1**: Can a reasonably complete list of curriculum options for a particular schooling situation be gathered?

**Problem 2**: Can a reasonably complete set of reasons for and against each curriculum option be gathered?

**Problem 3**: Can a simple, valid and reliable instrument be developed which would identify the reasons used by people to recommend or not recommend a particular curriculum option.

1.30 **Overview of the Study**

A review of the prescriptive and descriptive literature on needs and needs assessment, and an attempt to show how solving the problem being addressed by this dissertation fills a large theoretical and practical gap in present needs assessment methodology will comprise Chapter two.

Chapter three will consist of an identification of the physical and educational setting of the study and a description of the methods used to solve problem "1". The solution of problem "1" is called Phase I of the study. Chapter four will be used to show how problem "2" and problem "3" can be answered. Attempting to solve problem "2" and problem "3" is called Phase II.

An evaluation of the instrument developed in Phase II will comprise Chapters five and six; and the summary and conclusions form Chapter seven.
1.40 **Limitations of the Study**

The procedures used to solve the general problem of this dissertation were developed within the context of a particular educational situation. Therefore the content of the instruments is not generalizable.

To keep the study manageable, not all the curriculum options, determined in Phase I of the study, were used in Phase II of the study. Therefore, the curriculum options chosen for Phase II are not meant to suggest which form the curriculum, in the particular type of schooling studied, should take. To determine the complete curriculum would have been a step beyond what is attempted in this dissertation.

Finally, this study took place in a Third World country, differing from Canada in culture, politics, economics, in the educational level of the general population, and in the peoples' facility with English. The effect these various factors had on the study will be described and explained wherever necessary.
Chapter 2

THE THEORETICAL AND PRACTICAL CONTEXT OF THE PROBLEM

2.00 Introduction

Chapter two will be used to place the thesis problems in relation to both the descriptive and prescriptive literature on needs and needs assessments. In the first part of the chapter, a topology of the way in which "need" is used in standard English is traced. That section is followed by a description of present methods of determining "need". In the third section some of the problems with needs assessments are discussed. The focus of this thesis in light of present practice and present knowledge is provided in the last section.

2.10 A Topology of the Need Concept

2.11 Introduction

The word "need" is used in many different ways and in many different situations. For the purposes of the rest of this chapter, it is useful to examine those factors of "need" which remain constant, yet encompass all uses of the word. No single classification will do this, but Taylor (1959) has provided three classifications of "need" which will. They are:

1) The rule sense of "need"
2) The lack of sense of "need"
3) The dispositional sense of "need".

These three "need" senses differ from each other with respect to the state of affairs which would make the needs assertions true.
2.12 The Rule Sense of "Need"

2.121 Definition

The rule sense of "need" refers to a state of affairs where something is required or demanded by a prescriptive rule or law (Taylor, 1959, p. 107).

2.122 Discussion

Rules and regulations require, permit or forbid acts of certain kinds. That is, Rule "R" tells us that: "X" needs "Y" in circumstance "C". Komisar (1961, p. 30) distinguishes between the hypothetical mood in the rule use, and the categorical mood in the rule sense, as a means of distinguishing between circumstances where "X needs Y" is a statement of information and "X needs Y" is a statement of requirement.

The hypothetical mood tells us what would be needed if circumstance "C" existed. For example: "If you wish to go to university you need a 65% average in all your high school courses."

The categorical mood tells us what we do need, because circumstance "C" does exist. For example: "You are driving a car; therefore you need a driver's licence."

If a situation calls for the hypothetical mood, but the categorical mood is either uttered or interpreted as being uttered then the form of the assertion is misleading. For example, it is misleading to counsel a child that he needs a certain combination of subjects, without making it clear that that combination of subjects is needed only if he wishes to be in circumstance "C" when he graduates. The counsellor may or may not think that he is operating in the hypothetical mood, but the child...
could interpret the mood as being categorical.

It is important to note that a rule places a contextual requirement on someone who is in, or is going to be in, a certain circumstance. As Ainsworth (1976) points out: "There is . . . no implication that whatever is in question is actually held to be worthwhile by anybody (p. 223)." For example, "You need a driver's licence to drive a car" is true whether or not anyone values driving a car. Therefore there must be some commitment on the part of person X (X needs Y) to being in circumstance C, either now or in the future, before it can be said that he needs Y.

There are two methods which can be used to challenge the rule sense of "X" needs "Y". Firstly, the assumption that X is in, or ever will be in, circumstance C can be challenged. It is generally fairly easy to show, by empirical procedures, that X is or is not in circumstance C. For example, he is driving a car, therefore he needs a driver's licence (a law); he is going to university, therefore he needs a 65% average in eight senior courses (a regulation). On the other hand, it may be quite difficult to determine if X ever will be in circumstance C. For example, will the child with an I.Q. of 90 ever be applying for university?

Secondly, the rule itself can be challenged. Given that X is in, or will be in, circumstance C, and that there is a rule which specifies a state of affairs Y in circumstance C, then "X needs Y". However, the rule can still be challenged by saying that the rule ought to be changed, or ought not to be enforced, because it is impossible to comply with, or it has outlived its usefulness, or that conditions have changed so much that the rule becomes unnecessary. People are put in special positions
of responsibility to preside over challenges to the rules, and are
given titles such as judges, parliamentarians and chairmen (Peters,
1959, pp. 13-23).

2.13 The Lack Sense of "Need"

2.131 Definition

"Need" as a lack refers to a state of affairs in which:
the something-that-is-needed is a necessary means to the attainment of
a goal or objective (Taylor, 1959, p. 107).

2.132 Discussion

Komisar (1961, p. 31) identified four conditions which
must be met before it is appropriate to say that "X needs Y" in the lack
sense. Firstly, the objective for which X needs Y must be identified.
Secondly X needs Y only if Y is necessary for the attainment of the
objective. Thirdly, X must lack Y; and lastly there must be relevant
standards or norms which wouldn't be complied with if the lack per­s­
stisted.

Dearden (1966, p. 8) writes of three similar criteria which he
believes emerge from the application of the concept of need. The first
criterion is that there must be some kind of norm, such as a standard
of living or proper functioning of a thing, against which the present
state could be compared; secondly, the norm has not been achieved or
could fail to be maintained; and finally that which is needed is really
the relevant means for achieving the desired norm.

The norm relatedness of the objective to be attained is pivotal
in understanding needs as lacks. Both Dearden (1966) and Komisar (1961)
point out throughout their papers that part of the appeal of using
student "needs" as the bases of curriculum and policy decisions is that
norms appear to be empirically based. But as Dearden (1966) warns:

[Norms] can neither be 'discovered' nor empirically refuted,
since they indicate how things ought to be in various ways.
Questions as to desirable standards, proper functioning,
desirable rules or what appropriateness and efficiency are
cannot be determined by observation and experiment. . . .
(p. 9).

Even basic, biological needs considered to be necessary for
survival are seldom devoid of any ritualized wrappings. Benn and Peters
(1959) wrote:

'Survival' is not the simple concept it may at first appear.
If we meant by survival simply breathing, eating, drinking,
eliminating, sleeping, . . . then satisfying the biological
needs would be part of the definition of survival. But . . .
being alive implies doing all sorts of other things . . . it
is not mere life that is to be valued most highly, but the
good life . . . [which] means living in a certain manner (p.
144).

Lee (1948) wrote about her disgruntlement with the basic needs-
as-lacks approach to anthropological field studies. An example she
gave underlines the difficulties inherent in even accepting the most
obvious statements of need as being empirically based. She wrote of a
Mexican trader who offered to sell salt to the Hopi group who were about
to set off on a highly ceremonial salt expedition:

Within [the context of the salt expedition] this offer to
relieve the group of the hardships and dangers of the reli-
gious journey sounds ridiculous. The Hopi were not just going
to get salt to season their dishes. To them, the journey is
part of the process . . . of maintaining harmonious interrel-
atios with nature and what we call the divine (p. 393).

So even though survival would appear to be the simplest objective
on which to base statements of need, the "survival" needs could still be
based on other than the obvious. However, survival is too miserly a term on which to base curriculum decisions. Most needs-as-lacks in education are based on objectives which are based on far more complex values than survival objectives.

Popham (1972), who has strongly influenced the approaches to assessing needs in education, defined an educational need as the difference between desired learner outcomes and current learner status (Popham, 1972, p. 23). Provus (1972, p. 33) took a similar position. Popham (loc. cit.) correctly points out that the procedure for determining desired learner outcomes is exclusively one of valuing; however, he does not clarify how to carry out this valuing procedure. Judging by present needs assessment studies (see section 2.20 of this thesis), determining desired learner outcomes is usually carried out through a consensus method. But, as Archambault (1957) wrote:

Given a sufficient contextual definition of what 'the desirable' is, then genuine needs can be determined by a process of thorough investigation. However, this is a case of a notion of need-as-lack following from a construction of the valuable, rather than as an exclusive base for value itself (p. 55).

Recently, Stufflebeam (1977) identified four definitions of need. They were:

"1) Discrepancy View: A need is a discrepancy between desired performance and observed or predicted performance.

2) Democratic View: A need is a change desired by a majority of some reference group.

3) Diagnostic View: A need is something whose absence or deficiency proves harmful.

4) Analytic View: A need is the direction in which improvement can be predicted to occur given information about current status (pp. 1, 2)."
The discrepancy view and the diagnostic view are clear examples of variants of needs-as-lacks. The democratic view is the use of need in the recommendatory sense. The fourth view, the analytic view, doesn't seem to be a "need" at all. It is more a statement of instructional effect than of "need".

Stufflebeam proposed the following "need-as-lack" definition of need:

A need is something that can be shown to be necessary or useful for the fulfillment of some defensible purpose. (Ibid., Exhibit 3)

There see to be four ways a statement of the sort, "X needs Y to Z," can be challenged:

1) Challenge the existence or absence of Z. This is purely an empirical challenge.
2) Challenge the efficacy of Y as being the means for achieving Z. In a curricular context that is a challenge of the ways and means for achieving Z.
3) Challenge whether or not X already has Y. That is an empirical challenge.
4) Challenge the worth of Z as an appropriate objective. That is a normative challenge, for it is not logically odd to ask whether Z ought to be pursued as a goal, regardless of whether or not it is desired as a goal.

2.14 The Dispositional Sense of "Need"

2.141 Definition

The dispositional sense of need "... refers directly
2.142 Discussion

A need in this sense is a strong drive or wish (want) or motive which acts to achieve a goal even in difficult or frustrating circumstances. For example, an ambitious man's need for success, a drug addict's need for the drug, an artist's creative need, are conscious conative dispositions, while a guilty man's unconscious need for punishment, the inferior person's unconscious need to boast, are unconscious conative dispositions.

Though Taylor (1959) limits the conative dispositions of humans as defining a sub-class of needs statements, the tendency among some psychologists has been to define the concept of need as if it were completely dependent on conative dispositions. Generally, the definition of need has been tied to the concepts of homeostasis and the psychological principle of equilibrium.

The development of the homeostatic principle is usually attributed to Cannon (1939). He referred to homeostasis in terms of the physiological balance of the body's processes; e.g., body temperature, blood pressure, etc. As Archambault (1957) summarized "The essence of the concept is that there is an optimum state of balance . . . which must be maintained if the organism is to survive. (p. 50)."

Mace (1953) extended the principle of homeostasis to cover not only the case of body equilibrium, but higher order intellectual and social needs as well. He saw need as causing stress in a human being with concomitant activity designed to eliminate the stress (p. 202). Taylor (1959, p. 108) wrote similarly, but whereas Mace was generalizing to all
needs, Taylor was restricting himself to only certain needs (the type which cause this stressful state).

Maslow (1970) argued that higher needs in humans are instinctive and biological and thus: "The needs for knowledge, for understanding, for a life philosophy, for a theoretical frame of reference, for a value system, these are themselves conative, a part of our primitive and animal nature. . . . (p. 101)." His and Mace's ubiquitous application of the conative dispositional sense of needs to all need statements seems to be wrong, if only because it doesn't seem to apply to rule senses or lack senses of need.

Rollo Handy (1960) stated that determining needs are empirical questions presupposing a generic human nature. He equated need with an event or condition which aids the human to function adequately. Handy was trying to equate value with need through the following equation:

\[ X \text{ is good for } Y \text{ in situation } Z = X \text{ satisfies } Y's \text{ need in situation } Z. \text{ (p. 161)}.\]

The validity of the above equation depends on the ability of science to reduce "need" to a cognitive, descriptive and naturalistic base. Handy (1960) considered the equation a more useful approach to value questions because: "... in theory, the sciences can objectively determine what the needs of humans are, and considering all cultures, there is likely to be a greater uniformity of needs than there is of interest (p. 161)." One weakness of Handy's approach is that science just has not been able to fulfill the hypothetical task which his thesis requires.

Therefore, though there are arguments put forward to consider all needs as conative dispositions, it seems more useful to consider only certain needs, outlined at the beginning of this section (section 2.142),
as falling into the category of conative dispositions.

2.15 Summary

As has been shown, there are many different ways in which the word "need" can be used. However, it is possible to classify those uses into three categories of need: the rule sense, the lack sense, and the dispositional sense. Though there is some overlap among these categories, they are sufficiently distinct to permit sensible statements to be made about the proper use of each type of need statement.

The following section describes the present practice on "needs assessment" in education. The illustrations used show that "need" is almost exclusively used to mean something which is necessary to correct a deficiency condition, i.e., the "lack" sense of need.

2.20 Present Practice in Needs Assessments

Needs assessment, as usually practiced, is composed of three general steps. The first is to identify a list of goals which are considered to be educational needs. The second step is to assign goal priorities, or somehow indicate the relative importance of each goal; and the third step is to determine the emphasis and attention which each "important" goal is to receive in the educational system.

Many proponents and practitioners of needs assessments begin by using predeveloped lists of educational goals. Petrowski (1974), who defined needs assessment as: "... stating potential educational goals or objectives, deciding which of these are of highest priority, and determining how well the educational program is meeting these objectives" (p. 1), submitted a predeveloped list of educational goals (needs) to parents, teachers and principals, and asked each member of
the group to rate each goal on a five point "importance" scale.

Patterson and Czajkowski (1976) found that it was difficult for people to reach a consensus on the goals to be included in a needs assessment, and therefore suggested that a predeveloped list of goals, such as supplied by the *Phi Delta Kappan* (1975) be used. Other investigators who use predeveloped lists of goals are Tuckman and Montare (1977) and Brittingham and Netusil (1976). The Georgia State Department of Education (1974) defined an educational need as the difference between desired performance and current performance on some desirable goal(s). They claim that the more the students fall short of attaining a critical goal the more critical is their need. Georgia State's Education Department (1974) suggested that the method which will determine critical goals is to have a committee rate the importance of each goal in a list of goals. The "most critical" goals are defined as goals which "... are absolutely necessary for the student to attain to be a stable, happy, contributing member of the society (p. 48)."

The Ohio State Department of Education (1974) defined need as the difference between what a student knows and what he should know. They (Ibid.) also suggested the use of a committee to determine the goals, and the use of a community survey to determine goal priorities. Similar approaches were suggested by Price (1973), The Rhode Island State Department of Education (1975), The New Jersey State Department of Education (1974) and the Florida University for Community Needs Assessment (1973).

The Educational Research Institute of B.C. (ERIBC) (1975) circulated an opinionnaire to a sample of people in the community of Vancouver
in order to collect desired educational goals for Vancouver schools. ERIBC defined student needs as those requirements which would assist the students to acquire particular knowledge, skills and attitudes needed to function effectively in society. The set of goals thus obtained was circulated to another sample of people in the community of Vancouver, who were asked to rate each of the 71 goals in terms of importance. Subsequent steps involved formulating objectives for important goals, measuring the difference between current learner status and desired learner status on important goals, and, finally, designing and implementing programs to overcome the measured difference.

Downey (1960) attempted to examine people's perceptions of the task of public education, specifically "What is the task of public education in the space age (p. 2)?" He synthesized a list of sixteen goals (p. 20-21 and p. 24) from an examination of what other people and organizations had suggested as being relevant educational goals. The final list of edited goals was circulated to a large, U.S.-wide sample, and a localized Canadian sample. Each respondent was asked to place each goal on a scale of relative importance using a forced, normal-distribution Q-sort. Nothing else was done with the goals, beyond statistical analysis of the results.

Most of the literature about needs assessments describes cases in which the educational goals are considerably more general than the goals utilized by the classroom teacher. However, there are a few articles where the general needs assessment methodology exemplified above has been used to determine instructional goals. For example, Baker (1972) performed a needs assessment in order to determine instructional goals for a senior elementary-school mathematics course. Fifteen
mathematics objectives were rated, on a five point scale, by teachers, pupils and parents. The objectives were then ranked on the basis of average ratings and the resulting ranks from the three groups (teachers, pupils and parents) were compared.

Another example of a more specific needs assessment was a study done by the Northwest Regional Educational Laboratory for the Faculty of Education at the University of British Columbia (1976). A sample of the faculty was asked to perform a paper and pencil Q-sort on eighteen objectives specific to the U.B.C. Faculty of Education. A rank order of the objectives was constructed from the average placement of objectives in the Q-sort ranking.

As has already been mentioned, once the goals have been rated or ranked the question becomes "Which goals should receive emphasis and attention in the educational system?". The general approach to answering this has involved four steps:

1) Determine the important goals from the data gathered on goal priorities.

2) Restate the important goals in the form of measurable objectives.

3) Determine the difference between the desired student performance and the actual or perceived student performance on the objectives.

4) Emphasize and give attention to those goals where the measured discrepancy in step "3" is large.

These four steps are the logical extensions of an empirically based needs assessment which defines educational need as the difference between the student's current status and his desired state (Popham, 1972,
p. 23). That is the "need as lack sense" of needs. Examples of the application of these steps can be found in articles by The Rhode Island (1975) and The New Jersey (1974) State Departments of Education; the Florida University Center for Community Needs Assessment (1973); the Educational Research Institute of B. C. (1975); Price (1973); and Tuckman and Montare (1977).

Usually, the discrepancy between current learner status and desired learner status is measured by testing the students, using norm or criterion referenced tests, for each goal considered important in the initial goal-rating or goal-ranking step. However, there are studies which attempt to determine this discrepancy "need" by combining its determination with the determination of goal importance.

An example of the latter approach was described by Lave and Root (1978). Their instrument for the community survey had the question format displayed in figure 2-1.

FIGURE 2-1

Sample Question Format For Rating Program Goals
(Source: Lave and Root, 1978, p. 4)

<table>
<thead>
<tr>
<th>Importance</th>
<th>Reading:</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>High</td>
<td>Develop adequate skills</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>in reading (reading speed and comprehension)</td>
<td>?</td>
</tr>
</tbody>
</table>

Critical "Need Areas" were defined by Lave and Root (1978) as goals
which received high importance ratings and low achievement ratings. A high importance rating was a rating above the average importance for all goals, and a low achievement rating was a rating which was below the average achievement rating for all goals. It is important to note that the achievement ratings are based on perceived achievement, and not on testing.

An extension of the above discrepancy approach was discussed in a research paper by Jenkins and Lange (1978). In their study the respondents were asked to give each goal an importance rating and an achievement rating. From those two ratings a difference score, or discrepancy score was calculated. A second instrument which incorporated the discrepancy score was prepared. The respondents were asked to rate the importance of removing the discrepancy. This last rating produced a priority score. Not surprisingly the correlation between the importance rating and the priority rating was highly positive (p. 9).

Earlier, Stake (1970) had recognized the value basis of need statements, and had attempted to provide a more systematic method of determining the emphasis a particular need should receive in the school or curriculum (Stake and Gooler (1971) and Stake (1972). Using a "Priority Planning Sheet" (Stake, 1972), he attempted to show how more information, other than a rank order, should be taken into consideration when a decision was made about the priority a need should receive. Stake (1972) suggested resource allocation (time, teachers, equipment), payoff probability (estimate of success in reaching the objective), and special conditions (individual differences, sequencing of tasks, entering behaviour, etc.) as being pertinent concerns.
2.21 **Summary**

The steps described in the previous section are summarized in Figure 2-2.

In present methods of needs assessment, there is almost complete uniformity of the use of the word "need". Need is usually defined as the difference between current learner status and desired learner status on particular goals which have been chosen as having some worth. The appeal of this definition of needs is that determining "need" becomes an empirical procedure (giving tests); however, as will be discussed in the following section, it ignores the value-base of the goals, i.e., are the goals worth pursuing? Empirical procedures have also been used to attempt to answer that question; for example, a sample of the community ranks the goals, and, if a goal is ranked high, it is considered to be worth pursuing.

There have been needs assessment studies in which the goals themselves have been considered to be the needs, such as, the earlier cited study by Downey (1960). Many studies of that sort have been used to determine the goals of community education (What does the community need?). The methodology has involved gathering lists of goals, prioritizing the goals and then deciding, in terms of potential participation rate, staffing, cost, etc., which goals will become part of the community college program (Morton and Warfel, 1975; Pennsbury School District, 1976). Other studies have focused on "those things which are needed to help the institution better meet its overall aim". In other words the emphasis is on the "means" rather than the "ends". For example Vicino and De Gracie (1976) found such things as staff sensitivity, communications, training time, and work attitudes to be highly ranked areas of
FIGURE 2-2

Present Needs Assessment Methodology

<table>
<thead>
<tr>
<th>General Procedure</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Gather lists of goals</td>
<td>a) Use predeveloped lists</td>
</tr>
<tr>
<td></td>
<td>or b) Use lists gathered from the community</td>
</tr>
<tr>
<td></td>
<td>or c) Use lists synthesized from books, articles, other lists</td>
</tr>
<tr>
<td></td>
<td>or d) Some combination of &quot;a&quot;, &quot;b&quot;, or &quot;c&quot;</td>
</tr>
<tr>
<td>2) Rank the goals</td>
<td>Have a sample of the community, teachers, students, and so on, rate or rank the goals on some basis of importance or priority.</td>
</tr>
<tr>
<td>3) Determine the emphasis each goal is to receive in the curriculum</td>
<td>Step 1: Decide which goals are most important.</td>
</tr>
<tr>
<td></td>
<td>Step 2: Restate the important goals in the form of measurable objectives.</td>
</tr>
<tr>
<td></td>
<td>Step 3: Determine the difference between the desired student performance and the actual or perceived student performance on the objectives. This measures the need.</td>
</tr>
<tr>
<td></td>
<td>Step 4: Emphasize and give most attention to those objectives where the measured discrepancy in step 3 is greatest (all things being equal).</td>
</tr>
</tbody>
</table>
concern at an Indian career Centre.

2.30 Problems of Present Practice in Needs Assessment

2.31 Introduction

From the plethora of descriptive and prescriptive literature on needs assessment, two general approaches have been identified. The first, and most common, procedure is to present a list of goals to the community for ranking or rating, on some scale of importance, and then determining whether the important goals have been attained by the students (see Figure 2-2). Those which are rated highly, and which the students have not attained are regarded as the "most needed" goals. The second procedure is really a sub-procedure of the above. That is, the list of goals is circulated to the community for ranking or rating. The goals believed most in need of attention are those ranked or rated highest.

In both these procedures, the community ranking and/or rating of goals provides a list of recommendatory need statements. For example, saying "Goal X is considered to be important by the community" is essentially the same (in the reasoning of needs assessments) as saying "The attainment of goal X is needed (in the recommendatory sense) by the students." If the persons administering the needs assessment go on to determine whether the students have attained the goal, then they are addressing themselves to determining needs as lacks.

There is very little literature which criticizes needs assessment methodology at the fundamental level assumed in the following sections. What criticism there is, is usually directed at problems of practice, such as costs, how to involve the community, planning, and so on. For
example, Lewis (1978) found, in his study of problems associated with the assessment of educational needs in some Ohio school districts, that the most frequently encountered problems were:

1) Obtaining a reasonable response rate from parents and community members.
2) Identifying educational goals.
3) Determining sub-goals.
4) Preparing the survey instrument.
5) Setting desired levels of student performance.
6) Selecting adequate assessment instruments.

Though these problems are important to a person performing a needs assessment (as presently done), they are based on the assumption that the procedures for performing needs assessments are valid. This assumption is not being made in the following discussion of problems of needs assessment.

2.32 Problems of Logic

If the second stage of present methods of needs assessments, that is, rating or ranking the goals (see Figure 2-2), was summarized in the form of an argument of conditional logic, then the argument could be written as illustrated in Argument 1.

Argument 1

: If most people consider goal X important then goal X is a need (in some sense).

: Most people consider goal X important.

: Therefore, goal X is a need (in some sense).

Argument 1 is untrue because the hypothetical part (if then) is a false general claim. Repeated claims that something is a need do not
constitute good grounds for accepting that claim. Whether a claimed need ought to be met must be established on grounds independent of the "need" claim itself. (Taylor, 1959, p. 111).

But what of those goals which are not considered important? By committing oneself to determining needs on the basis of popular demand, one is also committed to rejecting goals considered unimportant (as established by the community) as being needs. This could be written as Argument 2.

**Argument 2**

: If most people consider goal Y important then goal Y is a need (in some sense).

: Most people do not consider goal Y important.

: Therefore, goal Y is not a need (in some sense).

Argument 2 is an invalid argument. In addition to it being based on a false general claim (the if-then sentence), argument 2 is also invalid because: given a hypothetical (if-then) sentence, the denial of the antecedent (if-part) does not by itself (as a result of its being an if-part) imply the denial of the consequent (then-part). (Ennis, 1965).

The people who are doing needs assessments, using present methodologies, are assuming that Argument 1, and that Argument 2 are correct (which they clearly aren't). As well, they are assuming that by using the community or a committee to determine needs all important needs will be identified and highly ranked. That claim can be summarized as follows:

: If goal Y is a need (in some sense) then most people will consider goal Y important.

This is false general claim. There is no guarantee at all that all important needs will be identified as important by the community, if
only because they may not have the necessary information to make a rational judgment of importance. But there is also the possibility that the original set of need statements, submitted to the community for ranking or rating, may not be a complete list, and may have omitted some goals which really should have been considered. However, this is not admitted by those people undertaking needs assessments, and they continue to assume that Arguments 1 and 2, and the above claim, are sound.

Perhaps some practitioners of needs assessment would consider the above criticism too harsh, for, as Stake (1970) wrote:

Listing objectives can be thought of as selecting a few more-valued goals from a vast multitude of possible goals. The list is always an oversimplification. Goal-stating succeeds to whatever extent it succeeds because people are tolerant of omissions (p. 182).

The implications of Stake's argument are discussed in the next few paragraphs.

2.33 Problems of Goal Selection

The first stage of needs assessment, as presently done, requires the selection of a set of goals from some larger set of goals. Often this selection is done by a community committee. If a predetermined set of goals is used in the needs assessment, then this selection of a goal has been done by some other committee. This procedure eliminates goals which are probably unacceptable—at least to the committee—and avoids an unmanageable list of goals for the community to rank or rate. If we ignore the possible bias of the committee, we end up with a list of goals which presumably are reasonable directions for public education; that is, goals which the students ought to be directed toward in school. But the
point is, the community is not exposed to a complete set of goals to rank or rate, but only to those goals which seem "reasonable", or are more-valued by the goal selection committee.

That in itself seems like a sensible thing to do, for why bother with goals which are "obviously" unacceptable. But equally, if the committee, or whoever, can justifiably determine a set of worthwhile goals to present to the community for ranking or rating (i.e., some goals have more worth than others), then why can't the committee also decide which goals have the most worth? Why bother having the community rank or rate the goals at all?

Stake (1972) outlined a method by which priorities could be assigned to goals. In it, he pointed out that we cannot consider only the perceived importance of the goal (by the community, teachers and students) but must also consider other variables such as resources available (time, money and staff), sequencing of curriculum, entering behavior of the students, and so on. Therefore, it is not inconceivable that a goal which the community ranked high could be given a low priority on the basis of other variables. But information on those other variables is precisely what the community has not had. That information is known by the educational administrative hierarchy, and has not been made available to the community sample on the instruments used in present needs assessments. Therefore, the community may have based its judgment of need on criteria other than those suggested by Stake.

So once again, given that the initial list of goals is selected so as to represent goals "not distasteful" to the general public, and given that the implementation of these goals into curricula could be based on criteria other than those available to the general public, then why
bother having a needs assessment? Broudy (1977) has suggested that there is a failure of "nerve" on the part of educational leaders and as a result they appeal to the community to make educational decisions—the appeal confirming the public's lack of faith in the leaders' ability:

By taking refuge in multiplying options and alternatives and by basing educational decisions on political strategies, they have destroyed the belief that as experts they know what ought to be taught, to whom and when (P. 87).

### 2.34 Problems With Goal Rating by the Community

The goals which are presented to the community are often a mixture of social goals and schooling goals. For example, consider the following list of goals (Thompson and Smidchens, 1977, pp. 20-22):

1. Develop skills in reading, writing, speaking and listening.
2. Prepare to understand the changes that take place in our world and society.
3. Gain information needed to make job selections and develop skills needed to enter the world of work.
4. Develop skills in mathematical computations and concepts.
5. Foster the examination and use of information.
6. Learn to appreciate the sciences, arts, and humanities.
7. Practice and understand the ideas of both physical and mental health.
8. Develop pride in work and a feeling of self-worth.
9. Learn to respect and get along with people who may think, dress and act differently as citizenship skills are developed.
10. Understand and practice the skills of family living.
11. Learn to be a good manager of property and resources.
12. Learn to be a good manager of money and resources.
13) Develop a desire for learning, now and in the future.
14) Develop educational programs at all levels which will provide for equality of opportunity.
15) Develop educational programs which meet the needs of the non-English speaking person.
16) Develop parental and total community participation in the educational process.
17) Develop citizenship and social responsibility.

There are many criticisms which could be made about this list of goals. For example, goals 1 to 13 and 17 seem to be directed toward what the student should do, whereas goals 14, 15 and 16 seem to be directed toward what the school board should do. As well, the goals themselves are extremely broad, and there is considerable overlap among the set. Another major criticism, mentioned earlier, is that much of the selection of goals has already been done by the committee which decided on these goals. All the goals are fairly acceptable, decent sorts of things. There are no goals such as "Develop a sympathetic understanding of the communist doctrine", or "Develop the ability to have happy, healthy sexual relations", a topic which seems to be of great concern to the society at large. However, the main concern in this section is not with these instrumental difficulties, but with the possibility of the results of needs assessments, using goal lists similar to the above list, being used to divert a public educational system toward fulfilling only instrumental goals.

It is not inconceivable to imagine a society which would rank goals 3, 10, 11, 12 and 17 high and the traditional schooling goals, 1, 4, 5, 6, and 13 at the bottom of the list. The educators would then be
required, if they really were committed to majority determination of goals, to begin teaching job skills. Mathematics, science and the arts, would receive only the attention necessary to ensure that the student could become successful at the higher ranked goals. This would be an educational system responding to that society's goals but it would be a distortion of education.

Scheffler (1971) wrote:

. . . the notion that education is an instrument for the realization of social goals, no matter how worthy they are thought to be, harbors the greatest conceivable danger to the ideal of a free and rational society. For if these goals are presumed to be fixed in advance, the instrumental doctrine of schooling exempts them from the critical scrutiny that schooling itself may foster (p. 113).

An equally strong criticism was written by Peters (1964). In his paper, he was criticizing the concept of mental health as an over-arching guideline which was somehow perceived by educationists as being extrinsic to the business of education. As he wrote:

. . . the reference to 'mental health' as an educational aim is yet another way of perpetuating the obnoxious view that education must have some aim beyond itself, that it must have some practical use in 'the outside world' or that it must be some sort of 'investment' which it is worthwhile for a community to spend money on. . . . Education, on this view, is all right if it helps a man to make money, to get on with his neighbour or his wife; if it can't it must be some sort of ivory-tower eccentricity advocated by egg-heads. Now though 'education' may contribute to such practical ends it is treason to civilization to see it only under such an aspect. For education is not just a preparation for 'living' in this sense; it is an initiation into a distinct form of life (pp. 197-198).

2.35 Problems of Community Judgement in Goal Rating

As has already been mentioned a number of times, if a goal is rated as important by the community then, according to the logic of
majority determination of goals, that goal should be implemented. Similarly, if a goal is considered not important, it should not be implemented. This latter sentence is part of an invalid argument but has been accepted in needs assessments as a method of rejecting goals. But present methodology does not tell us why a goal has been considered important or unimportant. It may be that a goal was considered important for invalid reasons—in which case it may be unjustified to implement it. Unless the educational leaders are completely dedicated to the principle of majority determination of goals, as presently carried out in needs assessment, then they could be placed in a dilemma. For example, what should the leaders do if goal X, which they consider important for various reasons, is not recognized by the community as being important? Surely if there are powerful reasons for implementing goal X, and none against implementing goal X, then goal X shouldn't simply be rejected on the basis of majority opinion. Or, as is more usually the case, if there are valid reasons for goal X and invalid reasons against goal X, then goal X shouldn't be rejected on the basis of those invalid reasons. The following example is not taken from the context of a needs assessment, but it is useful for illuminating some of these problems.

In January 1978 the Vancouver School Board proposed that a French Immersion Program (F.I.P.) begin at Osler Elementary School (O.E.S.) in Vancouver, in September, 1978. A well attended public meeting was held in the area served by O.E.S.. At the end of the meeting" . . . trustees and board officials had decided to scrap the idea because at least two thirds of the people attending were against it" (The Vancouver Sun, January 13, 1978, p. A8, col. 1).
The Vancouver School Board had committed itself to accepting the majority opinion of the community served by O.E.S. as the criterion for implementation. But if majority opinion is the criterion, then well-informed opinion is better than uninformed or misinformed majority opinion. What were the bases of the opinions of the people at that public meeting? To answer that question requires examining the reported reasons for and against implementing the French immersion program in the O.E.S. As summarized in *The Vancouver Sun* (January 13, 1978, p. A8) the reasons for were:

1) A French Immersion Program (F.I.P.) could use the space being created by declining enrolment in O.E.S.

2) There is a waiting list for other F.I.P.'s in the city.

3) If the enrolment in the school declines too much, and the space isn't utilized, the school may have to be closed.

4) Today's trend is toward French-English bilingualism.

while the reasons against were:

1) Children from O.E.S. will not have priority over other children in the city to join the F.I.P.

2) The English program will suffer.

3) The principal would have to be bilingual and would therefore cater to the needs of the French students.

4) The quality of education in the school could not be maintained if two programs were operating.

5) There are other programs which could use the extra space being created by declining enrollment.

6) "We live in British Columbia not in Quebec".

The reported reasons against the F.I.P. were beliefs of the
parents, and, in a situation where the parents did not have any evidence against those beliefs they would probably reject (as they did) the F.I.P. for O.E.S.. If the reported reasons against were true then the parents would be justified in rejecting the F.I.P.; but, as the representatives of the School Board unsuccessfully tried to point out, the reasons against the F.I.P. were not true or were based on false assumptions. The main problem, identified by an editorial in The Vancouver Sun, was: "... that the school board, with an over-confidence based perhaps on the success of programs elsewhere in the area, had not prepared parents for a factual discussion of French immersion programs" (The Vancouver Sun, January 14, 1978, p. A4, col. 1).

What occurred at Osier Elementary School was a vocal version of a needs assessment, with only one goal being considered. What makes it pertinent to this thesis is that the reported reasons against accepting the goal of F.I.P. in O.E.S. could be examined. On the whole, the decision to reject the F.I.P. appeared to be based on fear, unsubstantiated or untrue beliefs, and a touch of linguistic bigotry.

In present methods of needs assessment, there is nothing to distinguish between goals which are ranked on rational, well-founded reasons and goals which are ranked on irrational grounds. Yet, if needs assessment makes any sense at all, the assumption must be that people are making sound, rational judgements when they rank-order or rate a set of goals. Obviously, in light of the Osier Elementary School meeting, there is no guarantee that this assumption is true.

2.36 Summary of the Problems of Present Needs Assessment Methodology

From the above arguments, there appear to be eight major problems associated with present needs assessments. They are:
1) Some of the arguments implied by present needs' assessment methodology are not sound.

2) Only goals "acceptable" to an initial screening committee are circulated to the community.

3) Goals the community ranked highly may be given low priority on the basis of information not easily available to the community.

4) Some goal lists are mixtures of educational goals, social goals and administrative goals; that is, people are not being asked to rank similar objects.

5) Many of the goals overlap or are contingent upon achieving other goals in the list.

6) Adhering to community determination of goals could unjustifiably divert schooling from traditional educational goals.

7) There is no guarantee that the community is rating or ranking the goals on rational grounds.

8) No criteria are given for the rating or ranking of a goal.

Each of these problems, by itself, is a serious challenge to the validity of the results of a needs assessment. In the final chapter of this thesis a general approach to community input into curriculum change will be recommended which will eliminate, or reduce the severity of, those problems. However, the focus of this thesis is a combination of problems 7 and 8; that is:

a) There is no guarantee that the community is rating or ranking the goals on rational grounds.

b) No criteria are given for the rating or ranking of goals.
2.40 Discussion of the Problem

Rating or ranking goals is a valuing procedure. The rater or ranker uses certain criteria, which he knows or believes to be true, in order to come to a conclusion of the rank or rating a particular goal should receive. Within the context of a particular needs assessment, he is making a recommendation as to what ought to be included (or not included) in the curriculum, or what the school system ought to emphasize (or de-emphasize), or whatever. The final rank order of goals, across a community, tells the educator which goals ought to receive high priority and which goals ought to receive low priority, in the eyes of the community. What the educator does not know are the criteria being used by the community to make those decisions. In the terms of the types of need statements identified by Taylor (see sec. 2.10): 1) does the community rate or rank a goal highly because they believe the goal is required by a rule or regulation; or because 2) they believe it is necessary in order to attain some higher order goal; or because 3) they believe the students just don't have any knowledge or skills in that area; or because 4) they believe there is a conative disposition which ought to be fulfilled; or 5) are they basing their judgement of goal worth on criteria not connected to need at all? To illustrate these considerations, the following three examples of need statements are offered below:

1) Rule-sense need statement.

Judgement: The student needs to study Religion.

Reason: He needs to study it because the School Act requires it as a subject.

2) Lack-sense need statement.
Judgement: The student needs to study Religion.

Reason: He needs to study it in order to attain a liberal education.

3) **Dispositional-sense need statement.**

Judgement: The student needs to study Religion.

Reason: He needs to study it because all men have a spiritual drive to understand the Divine.

What is the apparent from these three judgements of need is that the reasons given identify the need-sense being used. That information alone has important implications for the person who is designing the curriculum. For example, if the need to study religion is being used in the dispositional sense then the curriculum might be designed to foster "... the attitude and practice of sincere devotion to what is supremely worthful, that is, to a reverential orientation toward what is of ultimate value" (Phenix, 1970, p. 313). If the need to study religion is being used in the lack sense (for a liberal education) then the curriculum might be designed so that the student should "... be introduced to humanism at its courageous and inspiring best, and [he] should learn to understand, and to respect, honest religious doubt and skepticism" (Greene, 1970, p. 320). In other words, the curriculum orientation to be taken depends not only on what is needed, but also why it is needed.

In addition to providing information on the curriculum direction desired, the reasons also provide information on the information-base used by the community (or whoever) to rank or rate a goal as important. For example, suppose most people thought that Religious Studies was a required subject, as laid down in the School Act, and for this reason
rated the need for Religious Studies highly. If it turned out that the School Act had been changed and that Religious Studies was no longer required, then these people would have made a judgement based on faulty data.

Therefore, it is also in the interests of the community to have as complete a set of reasons as possible whenever making a judgement on what rank, or rating-value, a goal should receive. If an administrator wants the public to come to well thought out judgements about a goal's worth, then he must be willing to provide the public with as much pertinent information as possible. Present methods of needs assessment provide neither the administrator nor the public with the complete information needed to make a judgement of goal-worth.

Hirst (1974) wrote: "Saying what children need is only a cloaked way of saying what we judge they ought to have. Let us then remove the cloak . . . (p. 17)." The way the cloak can be removed is by examining the reasons why something is considered needed. It is the purpose of this thesis to develop a method which will determine the reasons used by the public in making a decision as to a goal's worth.
Chapter 3

THE DETERMINATION AND SELECTION OF CURRICULUM OPTIONS: PHASE I

3.00 Introduction

Chapter three consists of five major sections. The first section briefly describes the physical and educational context of the study. The second section describes the determination of the aims and potential curriculum of a particular school within the setting described in the first section. This section is an attempt to answer the first specific question of the dissertation. That is: "Can a reasonably complete list of curriculum options for a particular schooling situation be gathered?".

The third, fourth, and fifth sections are descriptions of the methods used to select some of the curriculum options for more detailed study. Briefly, the third section describes how the curriculum options were ranked and rated; the fourth section describes the reliabilities of the ranking and ratings; and the fifth section describes how the results from sections three and four were used to select some of the curriculum options for further study.

As a whole, Chapter 3 is called Phase I of the study. Phase I is a necessary prerequisite to solving the general problem of this dissertation. The chapter also includes the results for each section, so as to preserve the chronological sequence of the research.
3.10 The Context of The Study

3.11 The Physical Setting

This study took place in Honiara, the capital city of the Solomon Islands.

The Solomon Islands are a double chain of islands located between 6°31' and 11° south latitude, and between 155°30' and 162°30" east longitude. The boundaries of the Solomons enclose a sea area of about 250,000 square miles. Six major islands comprise 86% (9,900 square miles) of the total land area of 11,500 square miles. A map of the Solomons is attached as Appendix A.

Typically, the large islands have a mountainous spine, running northwest to southeast, which drops steeply to the coast on one side, and descends through a series of foothills to the coast on the other side. The highest point in the Solomons is Mount Popomanasen, on Guadalcanal, with a height of 7,647 feet. The whole archipelago is still very geologically active. During the period of this study, there were numerous earthquakes, and a volcanic eruption.

There is little variation in climate in the Solomons. The period from April to October is one of steady southeasterly winds, while from November to March northwest winds blow. The period of southeasterly winds is called a dry season; however, "dry season" is a euphemism for less rain rather than an accurate description of the season. The rains fall in any month at any time of the day. They can range from steady drizzles, lasting from hours to days, to heavy downpours lasting from seconds to hours. Generally, the temperature ranges from about 75°F at night to about 90°F in the day.

The Solomon Islands were named and discovered for the West by the
Spanish navigator Alvaro de Mendana de Neyra, in 1568. Little notice was taken of the islands until the late 19th century. At that time the white traders and missionaries in the islands appealed to Britain for protection from the Melanesians. The Melanesian population was extremely hostile to white people because of the depredations of notorious labour recruiters known as "blackbirders". Those "recruiters" rounded up young, male islanders to labour on the sugar and cotton plantations of Fiji and Australia, and in the mines of New Caledonia and South America, in conditions which approximated slavery. Britain responded to the appeal for protection by declaring the Solomons a protectorate, in 1893. British efforts ended the "blackbirding" by 1910.

Beyond commercial copra production for the British firm Lever Brothers and the Australian trading companies of Burns Philip and W.R. Carpenter, there was little economic activity in the Solomons between 1910 and 1941. Then, early in 1942, the Japanese occupied the main islands as part of their wartime expansion. In August of 1942 the American Marines landed on Guadacanal, and, after six months of fierce fighting, caused the withdrawal of the Japanese. The jungles around Honiara, where much of the fighting occurred, are still littered with unexploded shells, destroyed aircraft, rusted land vehicles, "foxholes" and barbed wire.

After the war, the British administration chose a site called Honiara, which the Americans had cleared and developed into a sizeable wartime camp, as the new capital. "Honiara" is an abbreviation of a longer, Melanesian name for the area meaning "place of the east wind".

Today Honiara is the main commercial center and seat of government for the Solomon Islands. It has a population of about 15,000 people.
Most of the remaining 185,000 people in the Solomons still live in small villages, and practice subsistent farming and fishing. English is the official language of communication and the language of government. Informal communication is often in the oral language called "Pijin" which has a vocabulary derived from English and a Melanesian syntax. There is no universally spoken, traditional language in the Solomon Islands.


3.12 The Educational Context of the Study

A document, prepared in the Solomon Islands in 1973, and titled "Education for What", was the presentation of a Solomon Island government committee whose frame of reference was:

1) To review all aspects of education in the Protectorate in the light of its present and future needs with particular reference to the school system

and

2) To recommend ways in which primary and secondary education in the Protectorate should be developed to meet these needs .... (BSIP Educational Review Committee, 1973, p. 2)

Throughout the document there were statements such as: "... the present secondary school course was too narrow, and was foreign to the Solomons (p. 34)"; "[there is] the need for practical and vocational courses, which reflect the needs of the area in which the schools are located (p. 32)"; "[the] primary course should be of a general nature, broadened from the present course with its academic emphasis, to meet the needs of the majority of pupils (p. 35)". There was general agreement that the school system was somehow not meeting the "needs" of the pupils or the society. The nature of those "needs" was not
specified, but the report did help to clarify the direction for future educational policy in the Solomons.

From the Committee's report came a proposal which suggested setting up area high schools, called "New Secondary Schools" (NSS). To date, eight of these schools have been established. These schools were to be two-year, post-primary, training schools, and "... should be located to serve an area, and the courses offered should be geared to the needs of that area (p. 37)".

Before the NSS system began, the students who failed to gain a place, through an entry exam, in the academic secondary schools, had no other educational option open to them. That meant that formal education for most students in the Solomon Islands ended at Standard 7. It was for this large group of students that the NSS system was introduced. In a Solomon Island government policy paper, Education Policy 1975-1979, it was put this way:

The huge tapering-off between the present Standard 7 output and the entry to academic secondary school has been a focus of concern in recent discussions. It is not practicable or desirable simply to extend primary education so as to delay release of the child into a young-adult situation. But there is a need to provide a form of secondary education, appropriate to local circumstances for as many young people as want it and can be accommodated (p. 18).

The form of secondary education offered became institutionalized in the New Secondary Schools. These NSS's were to have the following aims:

1) To complete the basic education begun in the six year primary course.

2) To equip the child for young-adult situations and responsibilities.

3) To provide a basis for technical learning and employment in agriculture, trading or industry.

4) To develop interests and skills with roots in the cultural heritage. (Education Policy 1975-1979)
A more complete account of New Secondary Schools, prepared for a series of articles which appeared in the Solomon Islands News Drum newspaper in 1976, is presented in Appendix B.

The specific context of this study was in Honiara, the capital an only city in the Solomon Islands (population about 15,000). Up to the time this study commenced, all the new Secondary Schools were in rural areas and concentrated their work on "... rural affairs and ... skills relevant to Village life" (News Drum, August 5, 1977, p. 3, col. 2), the Honiara New Secondary School (HNSS) was to be in the urban environment of Honiara. Therefore, the curriculum which it used might have to be different from the other NSS's, so as to prepare the student for urban life. The HNSS opened in November 1976, one month after the author of this thesis (henceforth called the "investigator") arrived in the Solomon Islands.

3.20 Determining the Aims and Possible Curriculum Options of the Honiara New Secondary School (HNSS)

3.21 Determining the Aims of the HNSS

Discussions the investigator had with senior officers of the Ministry of Educational and Cultural Affairs (MECA), the Headmaster of the HNSS, and the tutor in charge of the NSS program at the Solomon Islands Teacher College (SITC) revealed that they all were worried about the overall aims of the HNSS. Therefore, a meeting of the interested parties (mentioned above) was arranged to discuss the aims of the Honiara New Secondary School. At the meeting, lists of aims which the investigator had extracted verbatim from local publications were presented. To prepare those lists of aims, publications about the New Secondary Schools were reviewed until no new statements of aims could
be identified. These lists of aims are attached as Appendix C.

The people at the meeting decided that the list of aims taken from the Education Policy 1975-1979 White Paper represented the Government's official position, and were the appropriate aims for the Honiara New Secondary School (minutes of the meeting are in Appendix D). The investigator did not take part in the discussions which led to that decision. Thus, the aims of the Honiara New Secondary School from those stated in the White Paper were:

1) To complete the student's basic education after six years of primary schooling.
2) To equip the student for young adult situations and responsibilities in Honiara.
3) To provide a basis for technical learning, and employment training in agriculture, trading or industry in Honiara.
4) To develop interests and skills with roots in the cultural heritage of the Solomon Islands.
5) To provide the student with chances to learn things which are useful for living in Honiara.

3.2.2 Determining Possible Curriculum Options for the HNSS

3.2.2.1 Introduction

The word "curriculum" is used here to mean all the courses and units which will be offered in the HNSS. Therefore a Curriculum Option will refer to a course of study such as agriculture, homecrafts, mechanics, etc.; and a unit of study would be a lesson or unit under a particular curriculum option. For example, under the curriculum option, "Homecrafts", there could be a unit of study on the cooking of taro.
3.222 Gathering Units of Study

The first step taken to identify the curriculum options involved compiling a reasonably complete list of units of study for the total curriculum of the HNSS. Specific curriculum options could then be identified from the results of categorizing the units of study (as will be described in Section 3.233).

The units of study gathered were often specific to the perceived needs of students in the Honiara area. For example, instead of simply "mechanics", a person might suggest fixing and maintaining an automobile (commonly found only in the city of Honiara). Fixing an automobile is part of mechanics; but, if "mechanics" was a curriculum option in a rural NSS, it would not include the fixing of automobiles. Though this information was not used directly in this study it would be an important source of data for anyone who would be designing a course in the HNSS.

Therefore, given the aims and characteristics of the Honiara New Secondary School a list of suggested units of study was gathered from the following sources (the specific references are presented in Appendix E):

1) The Minutes of the New Secondary School Curriculum Committee meetings (NSSCC).
2) Letters from citizens and educators to the NSSCC.
3) Fugitive literature available in the MECA files and the S.I. National Library.
4) Discussions with MECA officials.
5) Discussions with NSS teachers, from rural NSS's, and with HNSS teachers.
6) Theses and reports prepared in the Solomon Islands.

Some examples of the 154 units of study, extracted from the above sources, are listed below:
1) Making a fish pond.
2) Starting a small business.
3) Latrine construction.
4) Terracing on hilly land.
5) Growing vegetable crops.
6) Proper child care.
7) Banks and banking.
8) Storing food in the home.
9) Getting help from the police, when you need it.
10) Building animal houses.

3.223 Organizing the Units of Study

3.2231 Introduction

Once the potential units of study had been determined for the HNSS, the problems became to organize the units into a number of different categories, name the categories, and check that the categories were mutually exclusive and complete. These final categories would be the potential curriculum options for the HNSS.

3.2232 Placing the Units of Study into Categories

Since the 154 units were fairly specific statements of possible curriculum outcomes it seemed reasonable to ask educators and subject specialists, rather than the general public, to categorize them. Therefore, the 154 units of study were randomly numbered from 1 to 154. Each was typed onto a separate slip of paper. Seven subject specialists from the Teachers' College (SITC), two New Secondary School teachers, and one primary school teacher were independently and separately
asked to group the units into categories so that each category contained related units of study. The nature and aims of the Honiara New Secondary School were explained to each respondent before he/she categorized the units. There was no restriction placed on the number of categories or on the number of units of study in each category. The respondents were also asked to add any units they felt were missing, point out any units they considered vague or redundant, and attach a name to each of the categories they had established. A copy of the instructions and the form the respondents were given to record this information is provided in Appendix F.

The 154 units of study were used to produce a symmetrical matrix of dimensions 154 by 154. The cells above the diagonal of the matrix were filled with the percent of times a unit was associated with each other unit. The categories were formed by combining those units of study which were grouped together by 50 percent or more of the respondents. It did occur that some units of study were included in one category by 40 percent (or more) of the respondents, and in another category by another 40 percent (or more) of the respondents. In these cases, the units of study were placed in both categories.

These procedures yielded thirteen categories. Following further discussions with two of the respondents (the SITC Agriculture tutor, and the Agriculture teacher at the HNSS), the category "Agriculture" was divided into "Plant Agriculture" and "Animal Agriculture". The ten respondents eliminated nineteen redundant units of study from the list. The remaining 135 units of study are displayed in Figure 3-1.

3.2233 Checking the Categorization

Ten more respondents were chosen to check the categorizations. Half of the respondents were in the educational field
Figure 3-1

The Curriculum Options and Units of Study

1. **RECREATION AND GAMES**
   - learning to swim
   - organising indoor games
   - refereeing local games
   - organising outdoor games
   - rules of popular games

2. **ANIMAL AGRICULTURE**
   - raising dairy cattle
   - raising beef cattle
   - pig raising

3. **PLANT AGRICULTURE**
   - rice growing
   - pineapple production
   - growing spices
   - coconut growing
   - copra producing
   - irrigation
   - tobacco growing
   - growing traditional crops
   - growing bamboo
   - growing chillies

4. **FISHING**
   - making a fish pond
   - how to catch bait fish
   - preserving and marketing fish
   - catching and marketing shell fish

5. **SMALL BUSINESS STUDIES**
   - operating a small shop
   - starting a small business
   - advertising
   - saving and using money wisely

6. **TRADE COURSES**
   - simple metalwork
   - blacksmithing
   - the use and care of tools
   - bricklaying
   - septic tank construction

7. **BUILDING AND CONSTRUCTION**
   - road construction
   - latrine construction
   - septic tank construction
   - building permanent houses
   - boatbuilding (canoes and small boats)
   - the use and care of tools

8. **MECHANICS**
   - the repair and maintenance of outboard motors
   - the repair and maintenance of bicycles
   - the repair and maintenance of power saws
   - the repair and maintenance of motorcycle engines
   - the repair and maintenance of electric generators
   - car and truck maintenance
   - the use and care of tools

- insect pests in the garden
- using fertilisers
- growing vegetables
- cocoa producing
- producing plant seeds
- banana producing
- sugar cane growing
- growing oil palm
- making fertiliser and compost
- marketing farm products

- methods of catching fish in the sea.
- methods of catching fish in the rivers.
- rearing turtles.

- simple book-keeping
- obtaining business loans
- co-operatives
- marketing farm products

- furniture making
- simple plumbing
- simple welding
- typing

- the use of bush wood for building
- painting structures
- building leaf houses
- bridge construction
- building with concrete
9. **HOMECRAFTS**
- using electricity in the home.
- sewing by hand
- preventing accidents in the home.
- planning nutritious meals
- making clothes
- hygiene in the home
- how to treat and serve guests in your home.
- reading recipes
- storing food in the home
- sewing by machine
- making washing soap
- dyeing clothes
- washing clothes
- proper child care
- how to use different types of stoves and ovens.

10. **HANDICRAFTS**
- weaving (baskets, mats, etc.)
- wood carving
- drawing and painting
- rope and twine making
- dyeing cloth
- turtle shell crafts
- candle making
- leatherwork
- pottery making
- making shell jewelry

11. **TRADITIONAL STUDIES**
- the traditional stories of the people in the Honiara area
- the traditional songs of the people in the Honiara area
- the traditional dances of the people in the Honiara area

12. **HONIARA STUDIES**
- land use and land tenure in Honiara
- urban housing in Honiara
- the history of Honiara
- getting legal advice in Honiara
- the use of the Honiara museum
- how to get help when you are sick
- town planning in Honiara
- where you can live in Honiara
- labour laws in Honiara
- the function of the police
- the use of the library
- Honiara town politics
- community organizations in Honiara

13. **PERSONAL HEALTH**
- alcohol use and its effect on the body
- recognizing and preventing nutritional diseases
- recognizing and preventing common diseases
- preventing malaria
- the body and how it works
- preventing infections
- elementary first aid
- family planning

14. **SOLOMON ISLAND STUDIES**
- the history of the Solomon Islands
- the external trade of the Solomon Islands
- Solomon Islands Government financing
- the Government's development plan
- the political structure of the Solomon Islands
- the geography of the Solomon Islands
- the administrative structure of the Solomon Islands
- air, sea and land transportation in the Solomons
- industries in the Solomon Islands
- tourism in the Solomon Islands
and half were in business and industry. Because of the specific nature of the units of study under the various curriculum options, a judgemental sample of articulate people to check the groupings was used rather than a large random sample. Three expatriots were included to perform a check on the cross-cultural clarity of the units of study. A list of the respondents asked to check the categorizations follows:

Respondent A = HNSS Teacher (Solomon Islander, male)  
B = Accountant (British, male)  
C = Housewife (Australian, female)  
D = Primary School Teacher (Solomon Islander, female)  
E = Teacher Trainee (Solomon Islander, female)  
F = Tutor at SITC (Solomon Islander, male)  
G = Accountant (Solomon Islander, male)  
H = HNSS Teacher (Solomon Islander, male)  
I = Religious Worker (Solomon Islander, female)  
J = Construction Foreman (Fijian, male)

Each respondent, independently and separately, was given the units of study, each written on a separate slip of paper. The respondent was also given fourteen envelopes which were glued into a file folder and labelled with the curriculum options identified in the categorization step. He was asked to place the labelled slips of paper into the appropriate envelope. After checking to be sure that he was satisfied with the assignments, the respondent was asked to return the folder to the investigator. The information obtained was then recorded. The complete instructions are in Appendix G.

To determine the extent of agreement between the respondents, a coefficient of agreement (K) for nominal scales (Cohen's Kappa) was used. Cohen's Kappa (Cohen, 1960) differs from simply counting up the
proportion of cases in which the respondents agree by including a factor which adjusts for chance agreement. K can range from "1", for perfect agreement, to "0", when attained agreement equals chance agreement.

A preliminary examination of the proportion of units identically placed in each category revealed high agreement among the respondents. Therefore, a sample of twenty of the \( \frac{N(N-1)}{2} \) possible unique pairs of respondents were randomly selected for detailed calculations of Cohen's K. The results of these calculations are displayed in Table 3-1.

The medium value of coefficient "K" for the twenty randomly selected pairs of respondents was 0.87, with a range from 0.72 to 0.94. That indicated very good agreement between the respondents in assigning the units to the labelled categories. This suggested that the category headings were clear, independent and mutually exclusive with respect to the units under them.

After these steps in the procedure, another curriculum option, "Religious Education", was added, because of suggestions from three of the respondents (the two HNSS teachers and the religious worker), and because, as this study was being carried out, "Religious Education" was being taught in the HNSS. This addition gave a total of fifteen curriculum options for the HNSS. They were:

1. Recreation and Games
2. Animal Agriculture
3. Plant Agriculture
4. Fishing
5. Small Business Studies
6. Trade Courses
7. Building and Construction
8. Mechanics
9. Homecrafts
10. Handicrafts
11. Traditional Studies
12. Honiara Studies
13. Personal Health
14. Solomon Island Studies
15. Religious Education.
Table 3-1

Coefficients of Agreement Calculated for a Random Selection of Pairs of Respondents

<table>
<thead>
<tr>
<th>Respondent</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>*</td>
<td>.92</td>
<td>-</td>
<td>-</td>
<td>-.90</td>
<td>.88</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>B</td>
<td>*</td>
<td>.86</td>
<td>.76</td>
<td>.94</td>
<td>-</td>
<td>.88</td>
<td>-</td>
<td>.84</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C</td>
<td>*</td>
<td>.80</td>
<td>.88</td>
<td>-</td>
<td>.84</td>
<td>.90</td>
<td>.92</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>D</td>
<td>*</td>
<td>.74</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.78</td>
<td>.72</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E</td>
<td>*</td>
<td>-</td>
<td>.94</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>F</td>
<td>*</td>
<td>-</td>
<td>.87</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>G</td>
<td>*</td>
<td>.86</td>
<td>.84</td>
<td>.88</td>
<td>.88</td>
<td>.88</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>H</td>
<td>*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>I</td>
<td>*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J</td>
<td>*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* The diagonal values equal 1

3.224 The Validity of the Options

The curriculum options for the New Secondary Schools (NSS) were supposed to meet the needs of pupils from a small geographical area surrounding the school. Though there might have been some agreement for a standard curriculum for all of the rural new secondary schools, that curriculum would not necessarily be the same for the Honiara School—an urban NSS. Hence, there was no accepted criterion curriculum against which to check the validity of the curriculum options obtained in Phase
I of this study. Therefore, for the fifteen curriculum options obtained, it is most meaningful to discuss the adequacy of the set of curriculum options in forming a reasonable curriculum for the students in the HNSS. In other words, it will be shown that the curriculum options have content validity.

The purpose of Phase I of this study was to identify all the curriculum options for the HNSS which could be considered reasonable, in light of the aims and characteristics of the School in Honiara. The question constantly put to the respondents, in compiling the units of study and formulating the curriculum options, was "Is there anything else which you think should be included?". It was quite possible that some units of study were missed; however, it was much more unlikely that a curriculum option was missed. It was unlikely because the curriculum options were formulated from the units of study. Omitting one or two or more of the units of study within an option still left a set of units which could be identified as comprising a particular curriculum option.

If the curriculum options had been suggested first, then it would be less likely that the set of fifteen options identified in this study would have been obtained. Yet, in the other new secondary schools, curriculum options were decided first, and then units of study were derived from the options. The problem of using that approach, besides possibly missing a major curriculum option, was that the name of the curriculum option could dictate the kinds of things which should be taught under it. If the option was homecrafts, then a pre-developed course such as the UNDP course on Homecrafts--developed at the University of the South Pacific--might have ended up being used (this was the case in one of the rural new secondary schools visited by the investigator), rather than a set of units based on local requirements and foods.
Therefore, in the type of schooling studied, the options determined in this phase of the study have high content validity because: (1) the options were derived from, and supported by, specific units of study considered appropriate to the Honiara environment; (2) indigenous judges agreed on the content classifications; and (3) indigenous judges only suggested changes in units of study and did not suggest that any of the curriculum options were unreasonable.

3.225 **Summary**

The categorization of the initial set of units of study, labelling the categories and checking those categories provided results which indicated that this is a useful method for obtaining an accurate descriptive picture of the type of curriculum required in a particular schooling situation. For the administrator, the curriculum options (category headings) would provide a general framework for the curriculum, against which he could check the picture he wanted to convey within the aims of the school. For the curriculum implementer, the units of study would provide specific information which he could organize and amplify within his expert capabilities. Gathering units of study before specifying curriculum options increases the probability that the curriculum will be based on indigenous concerns (if that is the overall aim of the type of schooling being developed).

3.30 **Procedure for Rating and Ranking the Curriculum Options**

3.31 **Overview**

Twenty-four members of the Honiara community and 88 teacher trainees from the SITC (college respondents) were asked to rate and rank
order the fifteen curriculum options obtained from the previous steps. No members of these samples had participated in the formulation of the curriculum options. The respondents were asked to rate each curriculum option on a five point importance scale. After the rating they were also asked to rank order the options in order of importance, in light of the aims of the Honiara New Secondary School. Preliminary trials of these procedures indicated that both tasks would be easily understood and easily completed by the respondents sampled. Except for five respondents, this was the case.

The college respondents performed the task in their classrooms under the supervision of the investigator. The community respondents were approached individually and completed the task at their place of work, or at home in the case of three respondents who were not working for wages.

It became apparent from the materials used to generate the units of study, from the comments made by the respondents who were used to determine and check the categorization of the units of study, and from the preliminary trials of the rating and ranking of the curriculum options, that some of the options were considered to be only appropriate for girls in the HNSS, and that some options were only appropriate for boys in the HNSS. Therefore, half of the above sample was randomly assigned to the rating and ranking of the options for BOYS in the HNSS, and the other half for GIRLS in the HNSS.

A copy of the instrument and instructions for rating the options are appended as Appendix H. A copy of the instructions for ranking the options is appended as Appendix I.
3.32. The Community Sample

The community respondents comprised a judgemental sample of 24 people. They were chosen because they had the ability to complete the task, and they represented a range of occupations in Honiara. In view of the fact that the 1976 census data were not available at this time, and the fact that Phase I was a procedure for selecting some curriculum options for more study in Phase II, it seemed reasonable to use a deliberate procedure to obtain this sample.

The occupations of the community respondents were:

- Bank Clerk
- Garage Mechanic
- Gas-pump Attendant
- Accountant
- Agricultural Worker (field)
- Accountant Trainee
- Store Clerks (3)
- Primary Teachers (3)
- Store Clerk (Chinese)
- Dancer

Nurse Trainee
Tour Guide
Electricity Corp. Clerk
Shopkeeper
Housewives (2)
Typist
Agriculture Trainee
Nurse
Unemployed Worker (labourer)

All of the respondents were native Solomon Islanders, except for one Chinese store clerk. Table 3-2 describes the sample with respect to age, sex, schooling and years of residence in Honiara.

What is particularly interesting about the data exhibited in Table 3-2 is the short time the people sampled had spent in Honiara. Only one of the twenty-four respondents indicated that he had been in Honiara for more than five years. That person was the Chinese store clerk. The investigator had been told on a number of occasions that
there was no such thing as a "Honiarian". These data seem to support that contention. (See also the last paragraph of the first page of Appendix D for further discussion of this in relation to the HNSS.)

Table 3-2
Description of the COMMUNITY Sample Which Rated and Ranked the Curriculum Options

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Age (in years)</th>
<th>Schooling (median yrs.)</th>
<th>Residence in Honiara (median yrs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Male</td>
<td>Female</td>
<td>min.</td>
<td>mean</td>
</tr>
<tr>
<td>For BOYS in HNSS</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>For GIRLS in HNSS</td>
<td>12</td>
<td>7</td>
<td>5</td>
<td>19</td>
</tr>
</tbody>
</table>

3.33 The College Sample

At this point in the study, the investigator decided to use the students in the Solomon Islands Teacher College (SITC) as a data source for Phase I and for Phase II of the study. Of the total of seven intact classes of students available, six were used. The omitted class consisted of the New Secondary School teacher trainees. They were omitted because the courses they were taking emphasized a particular curriculum for the New Secondary Schools. Therefore their responses as a group might have been systematically biased.

It was suspected that the students in the college were a microcosm
of the larger Honiara community. Honiara could be characterized as an activity center rather than as a home for most of its residents. People came to the town from all over the Solomon Islands, spent a few years there, and then went back to their home villages. Honiara simply did not seem to be considered a home village. For example, in data gathered from the students at the Honiara New Secondary School, by the Headmaster of the School, only 8% of the students described Honiara as their family's home, and only 38% indicated they wanted to stay in Honiara after they had completed their course at the HNSS. Yet the students had completed most of their primary schooling in Honiara and were living with their immediate families in Honiara.

The college students were similar to the members of the larger community in that their stay in Honiara was seen as having instrumental benefits, i.e. to get teacher training so that they could go back to their villages to teach. Comparing the college data with the community data would help to confirm or deny the supposition that the college and community respondents were from the same population.

If it turned out that the data obtained from both samples was the same, then the college students would provide a convenient source for checking the reliability of the instruments.

Table 3-3 summarizes the characteristics of the college respondents.
Table 3-3
Description of the COLLEGE Sample Which Rated and Ranked the Curriculum Options

<table>
<thead>
<tr>
<th>N</th>
<th>Sex</th>
<th>Age (in years)</th>
<th>Schooling (median yrs.)</th>
<th>Residence in Honiara (median yrs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>min.</td>
<td>mean</td>
</tr>
<tr>
<td>For BOYS in HNSS</td>
<td>44</td>
<td>27</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>For GIRLS in HNSS</td>
<td>43</td>
<td>24</td>
<td>19</td>
<td>17</td>
</tr>
</tbody>
</table>
3.40 Results of Rating and Ranking the Curriculum Options

3.41 Rating Data

Table 3-4 summarizes the results of the rating task. The mean ratings, for the options for BOYS in the HNSS, were quite high. Both the community and the college rated more than half of the options between very important and extremely important. When ranks were assigned to those mean ratings for BOYS in the HNSS, and a Spearman's rank order correlation coefficient ($r_s$) calculated between the college and community ranks, $r_s$ was found to be 0.73. That is significantly different from zero at $\alpha < .01$ (see Table 3-6).

The mean ratings, for the options for GIRLS in the HNSS, had a greater range than those for BOYS in the HNSS. In addition, the college and community were in greater agreement than they were for BOYS. The rank order correlation coefficient between the college and community ratings was 0.98, which is significantly different from zero at $\alpha < .001$ level. The rank order correlation coefficients for the rank order of BOYS with the rank order of GIRLS were not significantly different from zero (see Table 3-6).

3.42 Ranking Data

Table 3-5 summarizes the results of the ranking task. $\Sigma R_j$ is the sum of the ranks given to a particular option by all the respondents. For example if person 1 ranked option A in position 3 then $R_1 = 3$; if person 2 ranked option A in position 5 then $R_2 = 5$; and $\Sigma R_j = R_1 + R_2 = 8$. The lower $\Sigma R_j$, the greater the perceived importance of the option.

There was good agreement between the college and the community on the ranking task for BOYS and for GIRLS. The rank order correlation
Table 3-4
Rating the Options

<table>
<thead>
<tr>
<th>Curriculum Options</th>
<th>For BOYS in the HNSS</th>
<th></th>
<th>For GIRLS in the HNSS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COMMUNITY (N=11)</td>
<td>COLLEGE (N=42)</td>
<td>COMMUNITY (N=11)</td>
<td>COLLEGE (N=38)</td>
</tr>
<tr>
<td></td>
<td>mean rating*</td>
<td>mean rank</td>
<td>mean rating*</td>
<td>mean rank</td>
</tr>
<tr>
<td></td>
<td>1. Recreation and Games</td>
<td>3.73 12</td>
<td>3.57 11</td>
<td>3.00 10</td>
</tr>
<tr>
<td></td>
<td>2. Animal Agriculture</td>
<td>4.36 2.5</td>
<td>4.33 6</td>
<td>2.82 11</td>
</tr>
<tr>
<td></td>
<td>3. Plant Agriculture</td>
<td>4.36 2.5</td>
<td>4.55 2.5</td>
<td>3.64 7</td>
</tr>
<tr>
<td></td>
<td>4. Fishing</td>
<td>3.09 13</td>
<td>3.43 13</td>
<td>1.73 14</td>
</tr>
<tr>
<td></td>
<td>5. Small Business Studies</td>
<td>4.18 6.5</td>
<td>4.60 1</td>
<td>3.82 6</td>
</tr>
<tr>
<td></td>
<td>6. Trade Courses</td>
<td>4.00 9.5</td>
<td>3.62 10</td>
<td>2.73 12</td>
</tr>
<tr>
<td></td>
<td>7. Building and Construction</td>
<td>4.09 8</td>
<td>4.00 9</td>
<td>1.27 15</td>
</tr>
<tr>
<td></td>
<td>8. Mechanics</td>
<td>4.55 1</td>
<td>4.43 5</td>
<td>2.64 13</td>
</tr>
<tr>
<td></td>
<td>9. Homecrafts</td>
<td>3.00 14</td>
<td>3.24 14</td>
<td>5.00 1</td>
</tr>
<tr>
<td></td>
<td>10. Handicrafts</td>
<td>4.00 9.5</td>
<td>3.55 12</td>
<td>4.63 3</td>
</tr>
<tr>
<td></td>
<td>11. Traditional Studies</td>
<td>2.27 15</td>
<td>3.23 15</td>
<td>3.55 8.5</td>
</tr>
<tr>
<td></td>
<td>12. Honiara Studies</td>
<td>4.27 4.5</td>
<td>4.02 8</td>
<td>3.55 8.5</td>
</tr>
<tr>
<td></td>
<td>13. Personal Health Studies</td>
<td>4.27 4.5</td>
<td>4.52 4</td>
<td>4.64 2</td>
</tr>
<tr>
<td></td>
<td>14. Solomon Island Studies</td>
<td>3.91 11</td>
<td>4.55 2.5</td>
<td>4.00 5</td>
</tr>
<tr>
<td></td>
<td>15. Religious Education</td>
<td>4.18 6.5</td>
<td>4.29 7</td>
<td>4.18 4</td>
</tr>
</tbody>
</table>

* The lower the rating, the less the perceived importance of the option (max=5, min=1).
Table 3-5
Ranking the Options

<table>
<thead>
<tr>
<th>Curriculum Option</th>
<th>For BOYS in the HNSS</th>
<th>For GIRLS in the HNSS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>comm (N=12)</td>
<td>college (N=42)</td>
</tr>
<tr>
<td>1. Recreation and Games</td>
<td>$\Sigma \mathbf{R}_j$ Rank*</td>
<td>$\Sigma \mathbf{R}_j$ Rank*</td>
</tr>
<tr>
<td>3. Plant Agriculture</td>
<td>69 5</td>
<td>207 2</td>
</tr>
<tr>
<td>4. Fishing</td>
<td>59 1</td>
<td>198 1</td>
</tr>
<tr>
<td>5. Small Business Studies</td>
<td>142 13.5</td>
<td>435 11</td>
</tr>
<tr>
<td>6. Trade Courses</td>
<td>75 6</td>
<td>217 3</td>
</tr>
<tr>
<td>7. Building and Construction</td>
<td>97 9</td>
<td>373 10</td>
</tr>
<tr>
<td>8. Mechanics</td>
<td>62 2</td>
<td>250 4</td>
</tr>
<tr>
<td>9. Homecrafts</td>
<td>65 3</td>
<td>270 6</td>
</tr>
<tr>
<td>10. Handicrafts</td>
<td>142 13.5</td>
<td>485 15</td>
</tr>
<tr>
<td>11. Traditional Studies</td>
<td>120 12</td>
<td>445 13</td>
</tr>
<tr>
<td>12. Honiara Studies</td>
<td>145 15</td>
<td>453 14</td>
</tr>
<tr>
<td>13. Personal Health Studies</td>
<td>90 7</td>
<td>352 9</td>
</tr>
<tr>
<td>14. Solomon Islands Studies</td>
<td>67 4</td>
<td>258 5</td>
</tr>
<tr>
<td>15. Religious Education</td>
<td>107 10</td>
<td>317 7</td>
</tr>
</tbody>
</table>

* The lower the rank the greater the perceived importance of the option.
coefficients were 0.88 and 0.95 respectively. Both of these coefficients are significantly different from zero at $\alpha < 0.001$ level.

As with the rating data, the correlation between the rank order of options for BOYS with that for GIRLS was not significantly different from zero (see Table 3-6).

Table 3-6
Spearman's Rank Order Correlation Coefficient ($r_s$) of the Community Data With the College Data

<table>
<thead>
<tr>
<th></th>
<th>From RATING data</th>
<th>From RANKING data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>For BOYS in the HNSS</td>
<td>For GIRLS in the HNSS</td>
</tr>
<tr>
<td></td>
<td>$r_s$  Prob.</td>
<td>$r_s$  Prob.</td>
</tr>
<tr>
<td>For BOYS in the HNSS</td>
<td>0.73 &lt; .01</td>
<td>0.10 &gt; .20</td>
</tr>
<tr>
<td>For GIRLS in the HNSS</td>
<td>-0.16 &gt; .20</td>
<td>0.98 &lt; .001</td>
</tr>
</tbody>
</table>

3.43 Reliability Estimates

3.431 Introduction

The ordering of the options from both the rating data and the ranking data was on the basis of a consensus. There was no objective or criterion order available to compare with the order obtained from consensus. The obtained order of options was reliable
to the extent to which the respondents acted as replicates of each other, and gave much the same ratings and ranks for a particular option; and to the extent to which the mean ratings and ranks were stable over a period of time. Therefore, internal consistency, and test-retest estimates of reliability were calculated.

3.432 Reliability of the Rating Data

3.4321 From Internal Consistency Measures

The reliability of ratings from the internal consistency of the raters was obtained by calculating the interclass correlation coefficient and applying Spearman-Browns prediction formula (Ebel, 1951, p. 418; Winer, 1962, p. 128; Guilford, 1950, p. 509). The necessary data for these calculations were obtained from an analysis of variance table, derived from considering the ratings to be a single factor experiment with repeated measures. The analysis of variance data for the community sample's rating of the options for BOYS in the HNSS is displayed in Table 3-7. This example will be used to illustrate the calculations.

Example Calculation

The interclass correlation ($r_1$) equals:

$$r_1 = \frac{MS_{BO} - MS_{WO}}{MS_{BO} + (K - 1)MS_{WO}}$$

(Ebel, 1951, p. 418)

where $K = \text{the number of raters}$

$MS_{BO} = \text{mean square between options}$

$MS_{WO} = \text{mean square within options}$
Table 3-7
Analysis of Variance Table for the Community's Ratings of the Options for BOYS in the HNSS

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Options</td>
<td>60.27</td>
<td>14</td>
<td>4.31 = MS_{BO}</td>
</tr>
<tr>
<td>Within Options</td>
<td>156.54</td>
<td>150</td>
<td>1.04 = MS_{WO}</td>
</tr>
<tr>
<td>Between Raters</td>
<td>29.21</td>
<td>10</td>
<td>2.92 = MS_{BR}</td>
</tr>
<tr>
<td>Residual</td>
<td>127.33</td>
<td>140</td>
<td>0.91 = MS_{res}</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>216.81</td>
<td>164</td>
<td></td>
</tr>
</tbody>
</table>

Therefore, for the example of the community rating of the options for BOYS in the HNSS

\[
\frac{4.31 - 1.04}{4.31 + (11 - 1)1.04} = 0.22
\]

The interclass correlation \( r_1 \) is an estimate of the reliability of a single set of ratings. Because, in this study, the average ratings were used to determine the relative importance of the options, then a reliability estimate of the average ratings was calculated. This was done by calculating the interclass correlation coefficient from equation (1), and then applying the Spearman-Brown prediction formula (Guilford, 1950, p. 508).

The Spearman-Brown prediction formula can be found in a number of sources. It is:

\[
(2) \quad \text{The reliability of K ratings } (r_{KK}) = \frac{K r_1}{1 + (K - 1)r_1}
\]

Therefore, in the example being used here,

\[
r_{KK} = \frac{11(0.22)}{1 + (11 - 1)0.22} = 0.76
\]
This estimate of reliability indicates that if the rating task was repeated with another sample, from the same population, then the correlation between the mean ratings obtained from the two sets of data would be approximately 0.76.

The reliabilities ($r_{KK}$) of the other rating tasks are displayed in Table 3-8.

### Table 3-8

Summary of the Reliability of the Rating Data

<table>
<thead>
<tr>
<th></th>
<th>$MS_{BO}$</th>
<th>$MS_{WO}$</th>
<th>$MS_{res}$</th>
<th>$r_1$</th>
<th>$r_{KK}$</th>
<th>Test-retest Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For BOYS</td>
<td>4.31</td>
<td>1.04</td>
<td>0.91</td>
<td>0.22</td>
<td>0.76</td>
<td>*</td>
</tr>
<tr>
<td>For GIRLS</td>
<td>12.3</td>
<td>1.01</td>
<td>0.92</td>
<td>0.50</td>
<td>0.92</td>
<td>*</td>
</tr>
<tr>
<td><strong>College</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For BOYS</td>
<td>10.9</td>
<td>0.93</td>
<td>0.87</td>
<td>0.20</td>
<td>0.91</td>
<td>.66</td>
</tr>
<tr>
<td>For GIRLS</td>
<td>34.8</td>
<td>1.00</td>
<td>.83</td>
<td>0.47</td>
<td>0.97</td>
<td>.97</td>
</tr>
</tbody>
</table>

* Test-retest reliability study was not performed with the community sample.

3.4322 From Test-Retest Measures

One month after the rating and ranking task was performed one of the classes at SITC was randomly selected to repeat the task. They were given the same instructions and the same forms as before. The average ratings, converted to ranks, obtained in the first trial were correlated with the average ratings, converted to ranks, obtained in the second trial. These correlations are displayed in Table 3-8. High correlation coefficients indicated that the
ordering of the options, using the mean ratings, were stable over the one month period of time.

3.433 Reliability of the Ranking Data

3.4331 From Internal Consistency Measures

The reliability of rankings due to the internal consistency of the rankers was estimated from the coefficient of concordance, and the Spearman-Brown prediction formula (equation "2").

Kendall's coefficient of concordance ($W$) is a measure of the degree of association among "$K$" rankings of "$N$" objects. A high or significant $W$ means that the judges are applying the same standard in ranking the $N$ objects. Their pooled ordering may serve as a "standard" (Siegel, 1956, p. 237). That is, the best estimate of the "true" ranking of $N$ objects, if $W$ is significant, is by the order of the various sums of ranks $R_j$ (Kendall, 1948, p. 87).

When the number of objects being ranked is greater than seven, then:

$$\chi^2 = K(N - 1)W$$

where $K$ = the number of rankers

$N$ = the number of objects to be ranked

If the value of chi square, calculated from equation "5", equals or exceeds $\chi^2$ for a particular level of significance, and $df = N - 1$, then the null hypothesis that the "$K$" rankings are unrelated may be rejected (Siegel, 1956, p. 237).

The average interperson correlation ($r_{\bar{1}}$) can be calculated from:

$$r_{\bar{1}} = \frac{KW - 1}{K - 1}$$

The reliability of the rank order obtained from the various sums of the ranks ($R_j$) can be calculated using the Spearman-Brown prediction formula (Equation "2"), and the interperson correlation
coefficient. The results of these calculations are presented in Table 3-9.

The high reliability estimates from equation "2" indicated that the judges were acting as replicants of each other; and, if the ranking task was repeated with another sample from the same population, the two composite rank orders would be very nearly the same.

3.4332 From Test-Retest Measures

The same class that supplied the rating test-retest reliability data supplied the ranking test-retest reliability data. The rank order of options, obtained from the $R_j$ values of the first trial, was correlated with the rank order of options from the second trial. These correlations are displayed in Table 3-9.

Table 3-9

Summary of the Reliability of the RANKING Data

<table>
<thead>
<tr>
<th></th>
<th>Sample Size</th>
<th>W</th>
<th>$X^2$</th>
<th>Sig. of $X^2$</th>
<th>$r_1$</th>
<th>$r_{KK}$</th>
<th>Test-Reetest Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>For BOYS</td>
<td>12</td>
<td>0.32</td>
<td>54.3</td>
<td>&lt; .001</td>
<td>0.26</td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td>For GIRLS</td>
<td>12</td>
<td>0.60</td>
<td>101.6</td>
<td>&lt; .001</td>
<td>0.56</td>
<td>0.94</td>
</tr>
<tr>
<td>College</td>
<td>For BOYS</td>
<td>42</td>
<td>0.28</td>
<td>164.6</td>
<td>&lt; .001</td>
<td>0.26</td>
<td>0.94                  0.85</td>
</tr>
<tr>
<td></td>
<td>For GIRLS</td>
<td>42</td>
<td>0.49</td>
<td>288</td>
<td>&lt; .001</td>
<td>0.48</td>
<td>0.97                   0.88</td>
</tr>
</tbody>
</table>

* A test-retest reliability study was not performed with the community sample.

3.50 Selecting the Options for Further Study in Phase II

To keep the study to a manageable size, a subsample of the curriculum options was retained for further study. This subsample was
selected using the rank order of topics obtained by combining the ranking data of the college and the community.

The decision to use only the ranking data was based on the following reasons:

(1) The reliabilities of the ranking data were consistently higher than the reliabilities of the rating data (Tables 3-8 and 3-9).

(2) The interperson correlations of the ranking data were consistently higher than those of the rating data.

(3) The rating procedure tended to produce clusters of options at the high end of the "importance" scale, whereas the ranking procedure forced each respondent to make finer discriminations among options.

The decision to combine the college and community ranking data was based on the following reasons:

(1) The correlations between the college and community rank orders were very high (0.89 for BOYS and 0.95 for GIRLS), and suggested that the two samples were using the same criteria for ranking the options.

(2) Neither the community sample's rank order nor the college sample's rank order could be described as "correct"; therefore there was no justification for choosing one over the other.

(3) In Phase II both a community sample and a college sample were to be used; therefore basing the selection of options on the basis of a composite rank order seemed a reasonable compromise.
**Figure 3-2**

Composite Rank Order for the Curriculum Options

<table>
<thead>
<tr>
<th>Composite Rank</th>
<th>Curriculum Option For BOYS in HNSS</th>
<th>Curriculum Option For GIRLS in HNSS</th>
<th>Composite Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Plant Agriculture</td>
<td>Homecrafts</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Animal Agriculture</td>
<td>Personal Health Studies</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Building and Construction</td>
<td>Handicrafts</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Small Business Studies</td>
<td>Small Business Studies</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Personal Health Studies</td>
<td>Religious Education</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Mechanics</td>
<td>Honiara Studies</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Honiara Studies</td>
<td>Plant Agriculture</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>Religious Education</td>
<td>Traditional Studies</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Solomon Island Studies</td>
<td>Solomon Island Studies</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>Trade Courses</td>
<td>Trade Courses</td>
<td>11</td>
</tr>
<tr>
<td>11</td>
<td>Recreation and Games</td>
<td>Recreation and Games</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>Handicrafts</td>
<td>Animal Agriculture</td>
<td>11</td>
</tr>
<tr>
<td>13</td>
<td>Fishing</td>
<td>Building and Construction</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>Traditional Studies</td>
<td>Fishing</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>Homecrafts</td>
<td>Mechanics</td>
<td>15</td>
</tr>
</tbody>
</table>
To calculate the composite rank order, a mean score, \( \frac{\sum R_j}{N} \), was calculated for each option from the community data, and similarly from the college data. The two means were added together to form a composite score for each curriculum option. The lower the composite score, the greater the perceived importance of the curriculum option. For example, for the curriculum option "Plant Agriculture for Boys in the HNSS", \( \sum R_j = 59 \) from the community (N=12), and \( \sum R_j = 198 \) from the college (N=42) (see Table 3-5). Therefore the composite score was:

\[
\frac{59 + 198}{12 + 42} = 9.6
\]

Since the composite score of 9.6 was the lowest score, then Plant Agriculture was ranked first for Boys in the HNSS. The composite rank orders are displayed in Figure 3-2.

Spearman rank order correlation coefficients (\( r_s \)) were calculated between the ranks obtained by the composite data and the ranks obtained from the college and community data separately. As would be expected from the strongly positive correlations between the community and college rank orders (see Table 3-6), the composite rank order is a very good representation of both (see Table 3-10).

The first, middle, and last ranked options for both boys and girls were chosen for use in Phase II of this study. The first and last ranked options were chosen because there was high agreement among the respondents when they ranked those options (see Figure 3-3). Therefore, a question which could be asked was: Given that the rank position of an option was stable and definite within the population, do people give it that rank position for the same reasons?

The middle ranked options were retained for the opposite reason. There was considerable disagreement among the respondents when they
ranked those options (see Figure 3-3). Therefore, the question which could be asked was: Given that the rank position of an option was not stable or definite within the population, what reasons do people give which would explain the disparate ranks given the option? That is, is there corresponding disparity among the reasons given?

If both of the above questions could be satisfactorily answered by the procedures to be developed in Phase II of this dissertation, then that would support the claim that the procedures were valuable and useful.

---

**Table 3-10**

*Correlations Between the Composite Rank Order of Options With the College Rank Order and With the Community Rank Order (Spearman's "r")*

<table>
<thead>
<tr>
<th>Community Rank Order of Options</th>
<th>College Rank Order of Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>For BOYS</td>
<td>For GIRLS</td>
</tr>
<tr>
<td>Composite Rank Order of Options</td>
<td></td>
</tr>
<tr>
<td>for BOYS</td>
<td>r_s = 0.95</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite Rank Order of Options</td>
<td></td>
</tr>
<tr>
<td>for GIRLS</td>
<td></td>
</tr>
</tbody>
</table>

Therefore, the curriculum options chosen for Phase II of the dissertation were:

- Plant Agriculture for BOYS
- Religious Education for BOYS
- Homecrafts for BOYS
- Homecrafts for GIRLS
- Traditional Studies for GIRLS
- Mechanics for GIRLS
Figure 3-3

Frequency Distributions of First, Middle and Last Ranked Options (Combined Community and College Data)

A. The Options for BOYS in the HNSS

1) PLANT AGRICULTURE (First Ranked)

2) RELIGIOUS EDUCATION (Middle Ranked)
3) **HOMECRAFTS** (Last Ranked)

![Graph showing frequency vs. rank]

**B. The Options for GIRLS in the HNSS**

1) **HOMECRAFTS** (First Ranked)

![Graph showing frequency vs. rank]
2) TRADITIONAL STUDIES (Middle Ranked)

3) MECHANICS (Last Ranked)
3.50 Summary

This chapter described the first stage of the study done in this dissertation. As such it was labelled Phase I. The reason for Phase I was to provide reasonable curriculum options for the second part of the study, Phase II. The procedure, developed in Phase I, derived the curriculum options from an exhaustive list of specific units of study, whereas, in present methods of "need" determination, the curriculum options are developed first, and then the specific units of study are derived from those options. The problems of this latter approach were discussed in Section 3.234.

From a composite rank order of the curriculum options, three curriculum options for BOYS in the HNSS, and three curriculum options for GIRLS in the HNSS were retained for use in Phase II of the study. Phase II is described in the following chapter.
Chapter 4

THE DEVELOPMENT AND ADMINISTRATION OF THE REASONS SELECTION QUESTIONNAIRE--PHASE II

4.00 Introduction

The purpose of Phase II of this study was to attempt to develop a method to determine the reasons people gave when they recommended the inclusion, or the omission, of a curriculum option for a group of students in a particular educational setting. The most direct method of proceeding would be to ask each respondent whether he would include or omit a particular curriculum option, and then ask him why he decided the way he did. However, simply asking for reasons has a number of difficulties associated with it. Firstly, the respondent would give only those reasons which "spring-to-mind", that is, there may be other reasons, which may be equally important, but which he wouldn't immediately think of. Secondly, the reasons given may be biased toward his decision; for example, if the respondent decided to recommend a particular option, then the reasons he gave would support his decision and ignore possible reasons that he might have considered and rejected in his deliberation. That is, there is no guarantee that deliberation occurred (with careful weighing of pros and cons) before the decision to recommend inclusion or omission of the curriculum option was made. And finally, there is no guarantee that all relevant points of view were taken into consideration when the decision was made.

Therefore, in light of these difficulties, simply to ask respondents for reasons they used to recommend the inclusion or omission of a
Curriculum option for the students in the HNSS did not seem to be an appropriate procedure. Instead a procedure was to be developed which would:

a) present the respondent with a reasonably complete set of relevant, "pro" and "con", reasons which might influence his recommendatory decision; and

b) present the respondent with a situation in which it is possible for him to deliberate on his recommendatory decision, in light of those reasons he considers "pro" and those reasons he considers "con".

Thus, this chapter describes two stages in Phase II. The first stage was to collect a complete set of relevant reasons, both pro and con, for each curriculum option; the second stage was to develop an instrument which incorporated the reasons and presented the respondent with a situation in which it would be possible for him to deliberate on his recommendatory decision (i.e., whether or not the curriculum option should be included in the curriculum).

4.10 Gathering Reasons

4.11 Introduction

Section 4.10 will describe the procedures used to gather reasons which could be relevant to a person's decision to recommend or not recommend a curriculum option for the HNSS. However, before the description of that procedure, two sub-sections are presented. The first describes the relationship between reasons and value judgements, and the second describes the criteria which were used to select reasons from the data gathered.
4.12. The Place of Reasons in Making Value Judgements

As was briefly mentioned in Chapter Two, rating or ranking curriculum options is a valuing procedure. If option A is ranked higher than option B, then the ranker has made a value judgement that option A is of more worth than option B. If option A is rated as "very important", then the rater has made a value judgement of the importance of option A. Or if a group of people insist that option A ought to be included in the curriculum, they are making a recommendation, or prescribing that a certain course of action be followed; and they are contextually implying that they have judged that option A is worthwhile.

One of the most significant points about value judgements is: "... that it is always relevant to ask for justification of value judgements. That is, it is never beside the point to ask for reasons or grounds for the judgement. If someone asserts that racism is bad, it is relevant to ask why it is bad or what makes it bad (Coombs, 1971, p. 13). This is true for prescriptions as well. For example, the following conversations seem distinctly odd:

(1) "You ought to include option A in the curriculum."
"Why?"
"Oh, I don't know. I don't have any reasons."

(2) "You ought to include option A in the curriculum."
"Why?"
"Don't be impertinent. Just do as I say."

When a recommendation is made by means of expressing a value judgement, the presupposition is that the judge can justify his judgement (at least in his own mind). Indeed, in any situation in which a value judgement is uttered, it is always legitimate and proper for the hearer to ask 'Why should I accept your judgement?' (Taylor, 1960, p. 67)

The reason we should ask the above question is that
... a value judgement contextually implies a reasoning process in which something has been evaluated. To judge the value of something is not merely to have a pro-attitude or a con-attitude toward it, nor is it merely a method of getting others to do something. It is an assertion, a claim that something is the case (namely, that an object has a certain value or disvalue). Such an assertion is the outcome of a process of evaluation and may always be challenged. A person who pronounces judgement upon something must have reasons for saying what he does (Taylor, 1960, p. 67).

An argument, used to arrive at a value judgement, would look something like this:

Value principle: "We ought to include courses in the school curriculum which will teach the students how to grow vegetables."

Factual claim: "The agriculture course teaches the students how to grow vegetables."

Value judgement: "We ought to include the agriculture course in the school curriculum."

As Coombs (1971) points out:

Making a value judgement commits the evaluator to a value principle because his judgement logically implies a principle. If someone says that this pencil is good he commits himself to the value principle that any pencil just like this one is good .... The precise nature of the value principle implied by any judgement is indicated by the facts which are given to support the judgement. (p. 13)

But often more than one fact is used to make a value judgement. If a complete job was done, there might be a set of relevant facts which are both supportive of, or in opposition to, the value judgement. Suppose, for example, the evaluator was aware that a particular course had positive traits A, B and C, and negative traits X, Y, and Z; but even after taking into account the negative traits he decided that we ought to teach the course. In that case the value principle would be a rather complex statement worded: "We ought to teach this course if it
has traits A, B, and C, even if it also has traits X, Y and Z." Somehow, the evaluator has weighed the pros and cons and decided that the benefits derived from A, B, C, outweigh the losses due to X, Y and Z.

What the above arguments imply is that: firstly, the person who makes the value judgement can articulate a set of reasons which provide a prima facie case for support of the value judgement; and secondly, the person making the value judgement considered the reasons in some complex, interrelated way to arrive at his value judgement. The instrument to be developed in this study should be able both to identify the reasons the respondent used to make his decision, and to determine the relative importance he placed on certain reasons to arrive at his value judgement. However, before the instrument and its development are discussed, the next section identifies some important characteristics of reasons. These characteristics guided the investigator's selection of reasons for the instrument.

4.13 The Characteristics of Reasons Used in Making Value Judgements

Scriven (1966) identified and discussed five requirements for a system of reasons that constitute good reasons for making a value judgement. Four of the requirements relevant to this study are:

1) The reasons are true.
2) The reasons are relevant.
3) The reasons are independent from the conclusion.
4) The reasons are more easily known than the conclusion.

Scriven (1966) also stated that, in their usual linguistic form, the reasons are assertions "... which bear on some other hypothesis or assertion that is said 'to follow from them', or be 'the conclusion
which they support' (p. 159) ...."

Each of the four requirements will now be described in more detail.

**Requirement 1: The Reasons Are True**

To be good reasons for making a value judgement, the reasons must be true. If the reasons are false, then the judgement, which follows those reasons, may be incorrect. For example:

Suppose someone judges that capital punishment is a good thing on the grounds that it deters serious crime. If as a matter of fact capital punishment does not act as a deterrent, the evaluator has made a poor judgement (Coombs, 1971, p. 18).

But, this produces a quandary. Should the public be presented with an adequate set of only true reasons for and against a curriculum option, and then be asked to rate or rank the option in the light of those reasons? That approach would be acceptable if we could be sure that the public would make decisions based on those reasons. However, that cannot be assumed. For example, in the case of the Osler School French Immersion Program (see Chapter 2, Section 2.35), it reportedly was not the case that true reasons were used in the parents' decision, even when those reasons were available and verbally espoused by the School Board.

Therefore, in order to determine why a curriculum option is considered important, or unimportant (worthwhile, worthless, etc.) by the community, the community must be presented both with reasons which are known to be true, or are well confirmed, and with reasons which are assumptions. Reasons which are assumptions are believed to be true without proof.

Reasons which are true, or are well confirmed, can usually be gathered from people who have expertise in the subject of inquiry. Reasons which are assumptions, and which are believed to be true without proof, can be gathered from people who are aware of, but who have no
special knowledge of the subject of inquiry. Therefore, in this study, in which both kinds of reasons were sought for each curriculum option, the reasons were gathered from experts, and from non-specialists.

Requirement 2: The Reasons Are Relevant

In order to bring a set of reasons to bear on a value decision, there must be a sound connection between the reason and the conclusion. In other words, there must be logical relevance. In addition, the reasons must actually have valence for the person making the value judgement (Coombs, 1971, p. 18). That is, one should be able to say: "I consider these reasons to support my decision (i.e., have positive valence) and these reasons to oppose my decision (i.e., have negative valence)."

Logical relevance can be demonstrated by performing a reasonably complete validation of each reason. The procedures for validating reasons are demonstrated in Chapter Six, Sections 6.14 to 6.17.

If a reason is to have valence, then it must be perceived by the respondent as having "something to do with" his/her decision to include or exclude the curriculum option from the HNSS. Whether or not the reasons for each curriculum option met the valence requirement will be examined in Chapter Five, Section 5.13.

Requirement 3: The Reasons Are Independent of The Conclusion

Scriven (1966) wrote: "The independence requirement demands that we be able to know the reason(s) for a conclusion without first having to know the conclusion (p. 160)". This requirement is necessary so as to avoid reasons which simply beg the question. For example, consider the following argument:

"Joe is a good teacher."

"Why?"

"Because he is effective in the classroom."
Being "effective in the classroom" is just another way of saying he is a good teacher. It is not independent of the conclusion and does not constitute a reason for judging Joe a good teacher.

The aid of a specialist in linguistics and teaching English as a second language was enlisted to ensure that each reason selected met the independence requirement.

**Requirement 4: The Reasons Are More Easily Known Than The Conclusions**

Scriven (1966) calls this the "simplicity" requirement. Unless the reasons are simpler to prove than the conclusion, there would be little point in using them as grounds for the conclusion, "... since we could as readily establish the conclusion (p. 161)". In the example given earlier about "Joe the good teacher", it would be as difficult proving that Joe was effective in the classroom as proving that he was a good teacher. But consider the following example:

"Joe is a good teacher."

"Why?"

"His students consistently score high on the district's standardized tests."

The reason given above (high test scores) may be only one of a set of reasons which are taken as evidence for supporting the contention that Joe is a good teacher. The point is that each reason is at least as easily understood or proven as the conclusion.

The classification of reasons suggested by Coombs and Meux (1971) was useful for determining whether each reason collected in this study met the "simplicity" requirement. They suggested that reasons were of three kinds: (1) particular facts which describe a specific state of affairs; (2) general facts which are empirical generalizations; and (3) conditional facts which are stated in an "if...then" form. Examples
and discussion of these three kinds of reasons are provided in Chapter Five, Section 5.15.

An Additional Requirement: The Reasons Must Represent a Wide Range of Considerations

A requirement which was not mentioned by Scriven, but which was mentioned by Coombs (1971), is the requirement that the reasons should represent a wide range of considerations; for: "Other things being equal, the greater the range of relevant facts taken into account in making the judgement, the more adequate the judgement is likely to be (Coombs, 1971, p. 18)". For example, moral, religious, traditional, and aesthetic considerations might be relevant for the curriculum option "Religious Education". Section 5.16 of Chapter Five illustrates the classification of the reasons gathered, into different concerns.

Therefore, the following five requirements were used in the selection of reasons from the data collected from specialists and non-specialists.

1) The set of reasons must be comprised of reasons which are known to be true and/or reasons which are assumptions.
2) The reasons must be relevant.
3) The reasons must be independent from the conclusion.
4) The reasons must be more easily known than the conclusion.
5) The reasons must represent a wide range of considerations.

4.14 Gathering Reasons From The SITC Students

4.14.1 Introduction

The Solomon Islands Teacher College provided potential teachers with training in the "best" methods of transmitting a particular body of knowledge or set of skills to the pupils in the classroom.
There was no purposeful attempt in the training courses to determine why a particular subject should be taught. In addition, only one of the five curriculum options selected for further study, homecrafts, was being taught at the SITC. The students met once a week for religious training, and had one afternoon a week for traditional studies, but neither religious training nor traditional studies were formal courses in their teacher training. For these reasons the investigator decided that the students at SITC would have no special knowledge of the curriculum options which were selected, in chapter 3, for further study in this dissertation, and would therefore provide reasons which would represent commonly held, societal-based assumptions about aspects of each curriculum option. Therefore, the investigator decided to use the students at the college as a large and convenient source of reasons which were assumptions about why a particular curriculum option should or should not be included in the HNSS curriculum. The procedure used to collect those reasons is described below.

4.142 Procedure

Each student at SITC was given a sheet which described the aims and characteristics of the HNSS. This was the same as the sheet given the students in the ranking and rating task discussed in chapter 3 (see Appendix I). The aims and characteristics were read aloud and, if necessary, explained. Each student was then randomly given one of the curriculum options, along with a description of the option, and asked to give as many reasons as he/she could think of as to why the course should be taught in the HNSS, and to give as many reasons as he/she could think of why the option should not be taught in the HNSS. Specifically the questions were:
"WHAT REASONS WOULD YOU GIVE TO SUPPORT HAVING A COURSE IN (curriculum option) FOR (girls or boys) IN THE HNSS?"

"WHAT REASONS WOULD YOU GIVE TO OPPOSE HAVING A COURSE IN (curriculum option) FOR (girls or boys) IN THE HNSS?"

Though the curriculum options chosen for this part of the study were either for BOYS or for GIRLS in the HNSS (see Section 3.50), half of the college students were asked to give reasons for and against for BOYS and the other half reasons for and against for GIRLS in the HNSS, for each curriculum option. This was done to ensure that all possible reasons for and against a curriculum option would be gathered. It could result that a reason for including a particular curriculum option for girls in HNSS could equally apply for including the option for boys in HNSS. Therefore 10 SITC students gave reasons for and against including the curriculum option "Mechanics" for BOYS in the HNSS, and another 10 SITC students gave reasons for and against including the curriculum option "Mechanics" for GIRLS in the HNSS, and so on with the other curriculum options.

4.143 Analysis of the SITC Students' Information

There was not an overwhelming number of reasons given for or against each curriculum option. About 75% of the college students gave only one reason each for the option and one reason each against the option. Nevertheless, there was a wide variety of reasons given, representing many different considerations (see Figure 4-2).

The collection of reasons for and against each option was carefully reworded so that they were in grammatical English but did not lose the meaning of the original statement. Some examples of these rewordings for "Traditional Studies" are presented below in Figure 4-1.
Figure 4-1
Rewording of the College Students' Reasons For
The Curriculum Option: "Traditional Studies"

<table>
<thead>
<tr>
<th>College Student Wording</th>
<th>Rewording</th>
</tr>
</thead>
<tbody>
<tr>
<td>How will they use these environment (sic)? In order to increase or improve their living in Honiara.</td>
<td>Traditional Studies will improve the students' way of life in Honiara.</td>
</tr>
<tr>
<td>They must have this course, because when they go back to their villages, they will still meet these things.</td>
<td>Traditional Studies will prepare the students for the traditional ways they will find in their own village.</td>
</tr>
<tr>
<td>The Honiara people do not have any traditional ways or cultures of their own to introduce to the students in HNSS.</td>
<td>The Honiara people do not have any traditional ways.</td>
</tr>
</tbody>
</table>

A complete list of the reworded, college students' reasons, for the curriculum option "Traditional Studies", are displayed in Figure 4-2.

Thus, from the college students, a list of reasons for and against each curriculum options was obtained. These reasons were used in the development of the instrument (described in Section 4.20) and served in the development of a guide for the semi-structured interviews carried out with experts on each curriculum option (described in the next section).
The College Students' Reasons For And Against

The Curriculum Option: "Traditional Studies"

("Traditional Studies" will be abbreviated to "TS")

<table>
<thead>
<tr>
<th>Reason For</th>
<th>Reasons Against</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) TS will prepare the students for the traditional ways that they will find in their own villages.</td>
<td>1) &quot;Made-up&quot; traditional ways may be taught.</td>
</tr>
<tr>
<td>2) TS will teach the students about the old ways in the Solomon Islands.</td>
<td>2) Traditional knowledge and skills are difficult to put into practice in Honiara.</td>
</tr>
<tr>
<td>3) TS will provide the students with experiences of Honiara's traditional ways.</td>
<td>3) It is difficult to obtain some of the bush materials for the dances.</td>
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<tr>
<td>4) TS will give the students knowledge of the past.</td>
<td>4) The teachers who teach the course are unqualified.</td>
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<tr>
<td>5) TS will improve the students' way of life in Honiara.</td>
<td>5) The students will neither like nor enjoy a TS course.</td>
</tr>
<tr>
<td>6) TS will reinforce the traditional ways of life.</td>
<td>6) It will be too difficult for the students.</td>
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<tr>
<td>7) TS will tell girls why they should keep their virginity.</td>
<td>7) The students have already been taught the traditional ways from their parents.</td>
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<tr>
<td>8) TS will teach the students about their culture.</td>
<td>8) TS will present conflicting traditional ways.</td>
</tr>
<tr>
<td>9) TS will give the students the knowledge and skill so that they could demonstrate their traditional ways to tourists.</td>
<td>9) TS will present traditions which the students will not be able to implement in their own villages.</td>
</tr>
<tr>
<td>Reasons For</td>
<td>Reasons Against</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>10) TS will teach the students about the people around them and how they treat each other.</td>
<td>10) TS will restrict its content to the Guadacanal area.</td>
</tr>
<tr>
<td>11) TS will teach the students other ways of living.</td>
<td>11) The students will find the traditional ways of other people boring.</td>
</tr>
<tr>
<td>12) TS will give the students an understanding of old people.</td>
<td>12) TS will present traditions from areas other than the students' own area.</td>
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<tr>
<td>13) TS will teach the students custom history.</td>
<td>13) TS does not teach anything which is modern.</td>
</tr>
<tr>
<td>14) TS will remind the students of the traditional ways of living.</td>
<td>14) The traditional ways are not supported in town.</td>
</tr>
<tr>
<td></td>
<td>15) The Honiara people do not have any traditional ways.</td>
</tr>
<tr>
<td></td>
<td>16) TS will teach the students other people's traditional ways.</td>
</tr>
</tbody>
</table>

4.15 Gathering Reasons From Interviews With Experts

4.151 Introduction

In addition to gathering reasons from the college students, reasons were gathered from well-informed persons who individually had
expertise in one of the five curriculum options. Two experts were interviewed for each of the curriculum options, with the exception of Homecrafts, in which three people were interviewed. Each interview was tape-recorded with the permission of the interviewee(s). Figure 4-3 displays the qualifications of each interviewee.

4.152 Procedure

The interview was a semistructured interview. It was built around a core of structured questions with the flexibility to branch off and explore issues in depth. "... accurate and complete information is desired with the additional opportunity to probe for underlying factors or relationships which are too complex or elusive to encompass in [a structured interview] (Isaac and Michael, 1971, p. 96)". The questions for the interview were structured around the lists of reasons obtained from the college students. Figure 4-4 illustrates the question guide used for the interviews with experts on "Traditional Studies". The question guide provided the "structure" part of the semi-structured interview.

The purpose of the interview was explained to each interviewee contacted. Each interviewee was asked whether he would agree to the interview (all did) and whether the interview could be tape-recorded (all agreed to this). A date was then arranged for the interview.

Before the taping of the interview, the investigator described the aims and characteristics of the HNSS, and the kind of students at the HNSS, and answered any questions. (Part I of the Question Guide, Figure 4-4.) The questions in the Question Guide (Part II) were then asked, but not necessarily in the order given on the Question Guide. The order was determined by the direction of the interview.
### Description of the Community Interviewees

<table>
<thead>
<tr>
<th>Interview Topic</th>
<th>Qualifications of Interviewee</th>
</tr>
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<tbody>
<tr>
<td><strong>Mechanics</strong></td>
<td>Foreman, small vehicle section of Public Works Department. Six years' experience at PWD Honiara, Diploma in vehicle mechanics from Fiji.</td>
</tr>
<tr>
<td><strong>Mechanics</strong></td>
<td>Heavy duty mechanic, Public Works Dept. (Honiara). Three years' experience at PWD Honiara, graduate of Honiara Technical Institute in Mechanics.</td>
</tr>
<tr>
<td><strong>Traditional Studies</strong></td>
<td>Assistant Curator of the Solomon Islands National Museum. Member of the Solomon Islands Cultural Association.</td>
</tr>
<tr>
<td><strong>Traditional Studies</strong></td>
<td>Chairman of the Solomon Islands Cultural Association and Senior Education Officer (primary).</td>
</tr>
<tr>
<td><strong>Religious Education</strong></td>
<td>Chairwoman of the committee which developed a religious education course for the New Secondary Schools. Member of the Solomon Islands Christian Association (a committee made up of churches of all denominations), and a Nun in the Catholic Church.</td>
</tr>
<tr>
<td><strong>Religious Education</strong></td>
<td>United Church minister. Taught religious education to students in the Honiara New Secondary School. Member of the Solomon Islands Christian Association.</td>
</tr>
<tr>
<td><strong>Plant Agriculture</strong></td>
<td>Agriculture officer for Guadalcanal. Identified by the Chief Agricultural Officer as the person most experienced in agriculture for the Honiara area.</td>
</tr>
<tr>
<td><strong>Plant Agriculture</strong></td>
<td>Agriculture extension worker (Honiara). Diploma in agriculture from Papua New Guinea. Duties include dissemination of agriculture methods for use in the Honiara area.</td>
</tr>
<tr>
<td><strong>Homecrafts</strong></td>
<td>Social Development Officer for women in the Solomon Islands. She was interviewed together with the Director of the Women's Institute. Both people were training women in homecraft methods which were appropriate for the Honiara area.</td>
</tr>
<tr>
<td><strong>Homecrafts</strong></td>
<td>Homecrafts tutor at the Solomon Islands Teacher College</td>
</tr>
</tbody>
</table>
Question Guide for "Traditional Studies" Interview

Interview Number Tape Number Date Time

Topic: TRADITIONAL STUDIES IN THE HONIARA NSS

PART I

1) Aims of the Honiara NSS.
2) Characteristics of the HNSS.
3) The students attending the HNSS.

PART II

1) The course in traditional studies at the HNSS will teach the students at the HNSS knowledge and skills of some of the traditional ways of people who live around Honiara. DO YOU THINK IT IS IMPORTANT FOR THE STUDENTS TO LEARN ABOUT THESE TRADITIONAL WAYS?
2) WHY DO YOU FEEL THAT WAY?
3) Do you think we should teach the students about the traditional ways they will meet in their home village?
4) Do you think we should teach the students traditional ways other than their own?
5) Would learning about people's traditional ways help the students understand old people?
6) Would learning about traditional ways help girls to keep out of trouble in Honiara?
7) Would learning about traditional ways help to keep boys out of trouble in Honiara?
8) Should the boys and girls in the HNSS demonstrate their traditional ways to tourists? (either now or in the future)
9) Can and should traditional ways be put into practice by the students in Honiara?
10) What sorts of qualifications should a teacher of traditional studies in the HNSS have?
11) Do you think the students at the HNSS would find a traditional studies course too hard to learn?
12) Do most children in Honiara already know the traditional ways of their home areas by the time they finish primary school?
13) Do you think it would confuse students at the HNSS to learn about traditional ways other than their own?
14) Do you think that the students would find it boring to study traditional ways other than their own?
15) Should boys and girls both take traditional studies? Just boys? Just girls?
16) Do you have any suggestions about the best way to teach a course such as traditional studies to a group of students like those in the HNSS?
17) Any other comments?
The interviews averaged about three-quarters of an hour each. If "an exchange" is defined as an interviewer utterance, followed by an interviewee utterance, then the interviews included between forty and one hundred exchanges. Each interview was transcribed. The transcriptions are available from the investigator.

4.153 Formulating Reasons For the Curriculum Options

Statements about each curriculum option were extracted from the transcripts of the appropriate interview. These statements were then compared with similar statements about the option obtained from the college students. Reasons which simply and accurately summarized what was being said by both the expert interviewee and the students were synthesized from the two sets of statements. For example, the following reason:

"A TRADITIONAL OR CULTURAL STUDIES COURSE WOULD GIVE THE STUDENT SOME TRADITIONAL RULES AND WAYS TO BEHAVE."

was synthesized from the following college students' statements and interview excerpts:

College Student Statements

1) Traditional Studies will improve the student's way of life in Honiara.

2) Traditional Studies will tell girls why they should keep their virginity.

3) Traditional Studies will remind the students of the traditional ways of living.
Traditional Studies Expert, Interview #1

"I think there are some of this type of children who are brought up without understanding traditional ways ... when they grow up cause a lot of trouble because they don't respect any culture because they don't know." (para. 58)

Traditional Studies Expert, Interview #2

"And in Honiara that is removed, you are removed from that. Traditional leaders are not there. The traditional norms are not there. There is no one to watch you and say to you 'watch your step' ... [by taking Traditional Studies] you have a fuller knowledge of why it is done and you become a better person, and you are better able to control yourself." (para. 20)

In the above example, data from both interviewees and from the college students were used. This was not always the case. Any one, or any combination of the two sources (the college students and the two expert interviewees) was used to synthesize reasons.

The option "Religious Education", which was originally only to be considered for boys (see Section 3.50, Chapter 3), was broadened to include the girls as well. It was broadened because there was no sexual differentiation made in the reasons, by the interviewees, with respect to that option. As well, the course "Religious Education" being taught at that time in the Honiara New Secondary School, was co-educational; therefore, the curriculum option became "Religious Education" for all students.

Similarly, "Traditional Studies" was considered to be a co-educational course by the interviewees. Therefore the reference frame of that curriculum option was also broadened to be for all students--and not just for girls in the HNSS.

On the other hand, there was a distinct sexual bias exhibited in the interviews and the college students' data with respect to "Mechanics". As well, mechanics were only being taught to boys in some of the New
Secondary Schools. Therefore, the curriculum option "Mechanics for boys", as well as "Mechanics for girls", was included in the study. Thus, the curriculum options used were:

1) Mechanics for BOYS;
2) Mechanics for GIRLS;
3) Homecrafts for BOYS;
4) Homecrafts for GIRLS;
5) Plant Agriculture for BOYS;
6) Traditional Studies for ALL STUDENTS;
7) Religious Education for ALL STUDENTS.

From the information gathered from the college students and from the interviews, a list of reasons was prepared for each of the above curriculum options. These lists were given to four members of a curriculum development seminar at S.I.T.C. for comments as to wording and completeness. No additions were suggested. The wording of the reasons was also checked by an English as a Second Language specialist. The final form of each list is appended as Appendix J. There were approximately equal numbers of positive valence and negative valence reasons identified by the persons who proposed them. Two of the curriculum options had nineteen reasons, two had eighteen, two had sixteen, and one had thirteen reasons.

4.20 Developing the Instrument

4.21 The Requirements Demanded of the Instrument

The following requirements for the instrument to be developed came from the conditions necessary for defensible value judgements. Those conditions were derived mainly from the writings of
P. Taylor (1961) in his book *Normative Discourse*; and from the book *Values Education: Rationale, Strategies and Procedures*, edited by L.E. Metcalf (1971). Detailed explanations for the requirements will not be given here, since it is more meaningful to explain them in terms of the actual instrument developed and the data collected with it. Therefore, the explanations will be delayed until Chapter Five, Section 5.22.

The first requirement was that the respondent be provided with the opportunity to indicate whether he thought a reason supported a conclusion to include the curriculum option in the curriculum of the HNSS (that is, the reason had positive valence), or to indicate if he thought a reason supported a conclusion to omit the curriculum option from the curriculum of the HNSS (that is, the reason had negative valence).

The second requirement was that the respondent be provided with the opportunity to indicate whether a reason did not apply or had no meaning for the respondent. That is, there had to be a "null" category available.

The third requirement was that the respondent must have an opportunity to add any reasons which were not included in the list given to him for a particular curriculum option. Placing this requirement on the instrument would also provide a content validity check for each list of reasons.

Fourthly, the instrument must provide the respondent with an opportunity to indicate the relative importance of those reasons he assigned positive valences and the relative importance of those reasons he assigned negative valences.
Finally, the instrument must provide the respondent with an opportunity to indicate the importance he would give the curriculum option in light of the reasons he gave positive and negative valences.

4.22 The Development of the First Instrument

The first instrument which the investigator tried was a sorting procedure with the reasons for each curriculum option printed on cards. The object was to have the respondents sort the reasons, for the particular curriculum option, by placing those reasons they perceived as having positive valence in one pile, negative valence in another pile, and any which they considered inapplicable in a "null" pile. The respondents were also to be given blank cards on which to write any other reasons they considered applicable. The respondents were to then rank the cards in the positive valence pile, and those in the negative valence pile. After considering the reasons in the positive and negative valence piles the respondent was to indicate how important he perceived the curriculum option for the HNSS.

This procedure was tested on a group of the College students at SITC. They had no difficulties in following the instructions and in satisfactorily completing the task. However, the quantities of materials required for the task were considerable. Each respondent required seven folders (one for each curriculum option) each containing an envelope of reasons cards. Therefore the total package was very bulky and quite formidable in appearance. It was also costly and time consuming to produce, particularly for group administration. For these reasons, the investigator decided to attempt to develop a paper and pencil questionnaire for the respondents and to abandon any further
4.23 The Reasons Selection Questionnaire (RSQ)

The instrument described in this section was satisfactorily tested with a group of college students at SITC and used for the gathering of the data discussed in the remainder of the dissertation.

The Reasons Selection Questionnaire (RSQ) consisted of three 8 1/2 X 14" pieces of paper glued together as illustrated in the sketch below.

There was an RSQ for each curriculum option.

Page "1" had, at the top of it, a statement of the curriculum option to be considered and a short description of the option. That was followed by the list of reasons to be considered by the respondent. Page "1" for "Traditional Studies" is displayed in Figure 4-5.

Page "2" consisted of three columns of boxes. The first column of boxes was labelled: "A reason why we SHOULD have this course for
FIGURE 4-5

Page One of the Traditional Studies RSQ

TOPIC TO BE CONSIDERED: Traditional and cultural studies for all students in the Honiara New Secondary School

DESCRIPTION OF THE TOPIC: This course would include the study of the traditional dances, songs, music, crafts, stories and games of the different cultural groups in Honiara.

REASONS

1. Taking a course in traditional studies would encourage the students to keep some of the traditional ways.

2. The course would not teach the students anything which is modern.

3. A traditional or cultural studies course would give the student some traditional rules and ways to follow.

4. The things the students learn in traditional studies may not agree with what they are told in religious education.

5. The students are too young to get anything out of a traditional studies course.

6. The students could demonstrate some of the traditional ways to tourists for money.

7. Very few of the students know anything about their own cultures and traditions.

8. If the student has to leave Honiara, the traditional studies course would help prepare him for village life.

9. The students would learn what was tabu in the different cultures of the Solomon Islands.

10. There are too many different customs and traditions for the student to learn them all.

11. The students could use some of the things they learn in traditional studies for their own enjoyment.

12. The student could sell the traditional crafts he makes for money.

13. There is presently no syllabus which could be used for a traditional studies course in Honiara.

14. Traditional studies will teach the student some of the ways of the old people in the Solomons.

15. The Honiara people do not have any traditional ways.

16. Learning about other Solomon Islands cultures would help the student get along with other Solomon Islanders.

17. Learning different traditions might confuse the students in the Honiara New Secondary School.

18. Most students in town will not use traditional or custom ways.

19. By learning about different Solomon Island customs and traditions, the student could look at the Solomons as a single nation.
(all students or the appropriate sex)". The second column of boxes was labelled: "A reason why we **SHOULD NOT** have this course for (all students or the appropriate sex)". And the third column of boxes was labelled: "A reason which does not apply, or is not for or against this course for (all students or the appropriate sex)". The respondent was directed to place a tick in the appropriate column of boxes for each reason. The three choices for each reason fulfilled the first two requirements of the instrument. Page "2" is displayed in Figure 4-6. The dashed lines separating the rows of boxes were used as guides for aligning page "2" with page "1".

The investigator considered using a rating scale for rating the reasons, which ranged from "A very important reason why we should not include the curriculum option" to "A very important reason why we should include the curriculum option". However, experience provided by the use of a rating scale for the curriculum options described in section 3.30, Chapter 3, suggested that the respondents did not tend to use the whole of a rating scale, but only a small section of it. Therefore, a more "forced choice" format was used.

The third and fourth requirements of the instrument (see section 4.21) were fulfilled in instructions given to each respondent, and read and explained to him by the investigator. The respondent was asked to add any reasons to the list which he considered relevant, and which were not on the list, and to assign those additional reasons positive or negative valence. Those instructions fulfilled the third requirement of the instrument. (The complete instructions are appended as Appendix K.)

The fourth requirement of the instrument was fulfilled by asking the respondent to read over all those reasons to which he had assigned
FIGURE 4-6
Page Two of the Traditional Studies RSQ

<table>
<thead>
<tr>
<th>a reason why we SHOULD have this course for BOYS GIRLS.</th>
<th>a reason why we SHOULD NOT have this course for BOYS GIRLS</th>
<th>a reason which does not apply, or is not for or against this course for BOYS GIRLS</th>
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positive valence, to pick the reason he considered most important, and place a "1" beside it. Similarly a "2" was to be placed beside the second most important reason and a "3" beside the third most important reason. Since there was no restriction on the number of reasons which could be assigned to one of the three columns of boxes (i.e. any number of reasons could be assigned positive or negative or "null" valence), there was the possibility that there would not be three or more positive valence reasons to rank. If that occurred, the respondent was asked to rank those that he did have. For example, if he only considered two of the reasons to have positive valence, the respondent was asked to place a "1" beside the more important of the two.

The respondent was asked to perform the same procedure with the reasons to which he had given negative valence.

The instructions on page "3" asked the respondent to consider the reasons he had given positive and negative valence and then decide whether he agreed or disagreed with the statement: "(name of the curriculum option) should be taught to (all students or the appropriate sex) in the Honiara New Secondary School".

After indicating whether he agreed or disagreed with the above statement, by placing a "tick" in one of the boxes provided, the respondent was asked to indicate the extent of his agreement or disagreement on a six point scale which ranged from "Very Much Agree" to "Very Much Disagree". The scale was diagrammed to illustrate the relative strengths of each of the six choices. Page "3" is illustrated in Figure 4-7. Page "3" fulfilled the last requirement of the instrument (see section 4.21).
FIGURE 4-7
Page Three of the Traditional Studies RSQ

INSTRUCTIONS:

Read over the reasons you marked as important reasons why TRADITIONAL AND CULTURAL STUDIES SHOULD be taught in the Honiara New Secondary School; and those reasons you marked as important reasons why TRADITIONAL AND CULTURAL STUDIES SHOULD NOT be taught to students in the Honiara New Secondary School.

On the basis of those reasons you have read over (both reasons why we should and why we should not teach traditional and cultural studies to students) please decide if you AGREE or DISAGREE with the following statement:

TRADITIONAL AND CULTURAL STUDIES SHOULD BE TAUGHT TO THE STUDENTS IN THE HONIARA NEW SECONDARY SCHOOL.

I AGREE  I DISAGREE

HOW MUCH DO YOU AGREE OR DISAGREE (CIRCLE ONE OF THE FOLLOWING)

THANK YOU
MR. N.E. GLEADOW
4.30 The Samples for the Testing of the RSQ

4.31 The Community Sample

The purpose of using the community sample was to field test the RSQ. The nature of the task required by the RSQ meant that the community respondents had to be able to read and understand English. The possibility of translating the RSQ into the lingua franca, Pijin, was explored, but a number of Solomon Islanders said not to bother doing so. The reasons they gave were: firstly, if a person can read Pijin then he can read English; and secondly, Pijin is an oral language, and when written has to be read aloud to be understood.

English is the main language of business, industry, government and social services in Honiara. In other words, it is the language of employment in Honiara. Therefore, the sample for the testing of the RSQ was taken from the population defined as all those people 15 years of age or older working for wages in Honiara. The type of sample chosen was a stratified, proportional random sample, with the strata being the occupational classes by sex of the population.

In the November, 1976, Solomon Islands' census, Solomon Islanders who were over the age of 15 and working to earn money were classified into seven major categories, by council area and sex, according to the International Standard Classification of Occupations (Revised Edition, 1968, I.L.O. Geneva, 1969). Appendix L lists the categories, and the occupations under them, which were relevant to the Solomon Islands, as compiled by the Statistics Section of the Ministry of Finance, Honiara (1975). The last category, "Production and Related Workers", was subdivided into three strata for this study: those occupations listed, in Appendix L, between 7-00 and 7-99 were labelled "Production I", 
between 8-00 and 8-99 "Production II", and between 9-00 and 9-99 "Production III". This was done to keep the coding of the occupations consistent with the list in Appendix L.

Table 4-1 displays the population size and the sample size by occupation class and sex. The population, for the sample, was only Solomon Islanders over the age of fifteen and working to earn money in Honiara. The overall sample size was 2% of the population.

Wherever possible, both the respondent and his place of work were chosen at random (within each strata). However, in some cases there was only one place of business where the job category existed; for example the soft drink factory, police station, poultry farm; and sometimes there was only one person in a business who fulfilled the occupational sub-category, for example a business manager or a bank manager. In those cases random selection of either the business or the respondent was not possible. However, in the total sample, there were only six non-random selections which were necessitated by the considerations mentioned above.

Only two of the first ten people sampled from the occupational category "Production III" were able to complete the RSQ. Of the eight people who did not fill in the RSQ's, six could not understand the written material given them, and two said they didn't have the time to do it. Because of this low response rate, mainly due to the inability of the respondents to complete the task, further sampling of Production III was stopped. The reason the six respondents couldn't complete the task is probably due to the low educational level of the group. There was no educational data specific to Honiara; however, for the Solomons as a whole: 34% of Production III workers had no education; 34% had between Standard 1 and Standard 4 education (grades 1 to 4); 27% had between
Standard 5 and Standard 7 education (grades 5 to 7); and only 5% had any post-primary education at all (source: Basic Table 34 of Solomon Islands Census, November, 1976, n.p.).

4.32 The College Sample

All the students at the Solomon Island Teachers College (SITC) were asked to complete the RSQ's. This was to provide a group for comparison with the community, as well as to provide the investigator with a large enough sample to explore some of the statistical properties of the RSQ. The investigator will not claim that the college students' responses are the "right" responses.

The students who participated in this part of the study were a different group from those who had participated in the earlier parts of the study. There had been a complete turnover of college students. The previous group of students had gone into the schools for a period of interning. Twenty-four female students and seventy-eight male students participated.

4.40 Administering the RSQ's

4.41 The Community Sample

After random selection, each community respondent was personally approached and asked for his/her cooperation in completing the RSQ's. Only three of the people approached refused to participate. One male in the occupational category "Service" said he didn't have enough time, and two males in the occupational category "Production III" accepted the RSQ's but each said later that he didn't have time to complete them.
Table 4-1
The Community Sample Size by Sex and Occupation (Honiara Only)

<table>
<thead>
<tr>
<th>Category</th>
<th>People in the Occupational Category**</th>
<th>Number Required For the Sample</th>
<th>Number Sampled</th>
<th>Number Who Completed the Task</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>1) Professional-Technical</td>
<td>443</td>
<td>151</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>2) Administrative-Managerial</td>
<td>56</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3) Clerical</td>
<td>683</td>
<td>205</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>4) Sales</td>
<td>172</td>
<td>18</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>5) Service</td>
<td>573</td>
<td>238</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>6) Agriculture</td>
<td>138</td>
<td>33</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7) Production I</td>
<td>226</td>
<td>22</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>8) Production II</td>
<td>334</td>
<td>1</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>9) Production III</td>
<td>1,323</td>
<td>11</td>
<td>27</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>3,948</td>
<td>681</td>
<td>79</td>
<td>14</td>
</tr>
</tbody>
</table>

* One male x-ray technician asked to be given an RSQ.
** This is for Honiara only, and only Solomon Islanders fifteen years of age and older working for wages (source: Solomon Islands Census data, November, 1976, Basic Table No. 32).
An information sheet, an instruction sheet, and the seven RSQ's (one for each curriculum option) were given to the respondent. The information sheet asked for the respondent's name, occupation, education, and whether or not the respondent had any children in the Honiara New Secondary School (two of the respondents did). The information sheet also gave the aims and characteristics of the Honiara NSS. The aims and characteristics were read aloud to the respondent, and any of the respondent's questions about the HNSS were answered. The information sheet is appended as Appendix M.

The instructions for the RSQ were also read aloud to each respondent. Any questions the respondent might have had were answered. The instructions for the RSQ are appended as Appendix K.

The investigator then told the respondent that he would return in two days' time to see if there were any difficulties in completing the RSQ. A convenient time to meet was arranged for two days hence.

Two days later, the investigator met with the respondent and asked if he was having any difficulties with the RSQ. Quite a large number of the respondents had not begun the RSQ by this time, so this arranged second meeting helped remind them of the task. Another meeting was then arranged for two days later so that the completed RSQ's could be picked up. Generally, most respondents had completed the RSQ's by that time. Each respondent was given a ball-point pen as a gift.

4.42 The College Sample

The college students were given the same information sheet, instruction sheets and RSQ's as the community. However, in this case, the investigator met with the students in their classrooms at SITC. The whole task from explanation to completion took about two and one-half class periods. In the first class period, the purpose of the study was
explained and the students were asked to complete the top part of the information sheet, giving their name, education and sex. The instruction sheets, which were given to each student, were read to the class, and explanations provided when needed. The students were then asked to perform the required task for the first RSQ.

In the second meeting with the class, the procedure was reviewed. The students then completed the next four RSQ's. In the third meeting the students completed the last two RSQ's. That took about twenty minutes. There was usually about one day between each meeting with each class. The investigator was always present while the students were completing the task. Each student was given a ball-point pen as a gift.

4.50 The Reliability Study

Twenty-five of the community respondents were randomly selected and asked to take part in a reliability study. In addition, three intact classes of students at the SITC were also asked to participate in the reliability study. The time between the first administration of the RSQ and the second administration ranged from three to five weeks.

It was decided to ask each respondent to complete three of the RSQ's rather than the complete set of seven. This was done so that the reliability study would not be too onerous a task for the respondents. The seven curriculum options were accordingly grouped into all possible combinations of three, with the restriction that mechanics for boys and mechanics for girls were kept together, and homecrafts for boys and homecrafts for girls were kept together. This restriction was placed on the grouping because of possible, but unknown, interaction between the responses given to the RSQ for girls, and those for boys. Three of the eight resulting groupings (there was one grouping of the two mechanics options and the two homecrafts options) were randomly
selected. The selected groupings were:

Group 1: Religious Education, Homecrafts (boys), Homecrafts (girls).

Group 2: Plant Agriculture (boys), Religious Education, Traditional Studies.

Group 3: Traditional Studies, Homecrafts (boys), Homecrafts (girls).

The three groups of RSQ's were randomly distributed to the respondents so that each respondent received one of the groups of curriculum options.

4.60 Scoring the Data

If a reason was given a "1" in the SHOULD column, then it was given a value of +4, if it was given a "2" then a value of +3, and if given a "3" then a value of +2. All other reasons in the SHOULD column were given values of +1. The same, but opposite in sign, sooring was used for reasons in the SHOULD NOT column. For example, if a reason was given a "1" in the SHOULD NOT column, it was given a value of -4. All reasons which were marked by the respondent in the "null" column were given values of zero.

An examination of the data gathered from the administration of the RSQ's revealed that some respondents, for particular curriculum options, tended to mark most of the reasons in the SHOULD and/or NULL columns, and some others tended to mark most of the reasons in the SHOULD NOT and/or NULL columns. The partial ranking of the reasons provided information about the importance of some reasons relative to the rest of the reasons on an RSQ. However, beyond the initial tricotomization of the reasons (SHOULD, NULL, SHOULD NOT), the partial ranking task did not show how much "positiveness" ("negativeness") a reason marked in the SHOULD (SHOULD
NOT) column had for the respondent, except in relation to the other reasons. Therefore, in order to place a reason on a positive-negative continuum relative to the other reasons, in those cases when fewer than four reasons were placed in the SHOULD or SHOULD NOT column, an adjusted scoring system was used. If there were only three reasons placed in the SHOULD column, then the reason given a "1" was assigned a value of +3, if it was given a "2" it was assigned a value of +2, and, if it was given a "3" it was assigned a value of +1. If there were only two ranked reasons in the SHOULD column then they were assigned values of +2 and +1.

Missing data were coded as missing data, with the following exceptions:

(1) If a respondent failed to code two or more reasons for a particular curriculum option, then all his data for that option were eliminated.

(2) If a respondent failed to code two or more reasons for three or more of the curriculum options, then it was deemed that he did not understand the task and all his data, for all the curriculum options, were eliminated.

4.70 Summary

Chapter Four described the development and field testing of an instrument which was labelled a "Reasons Selection Questionnaire (RSQ)". The reasons, used on each RSQ, were selected by adhering to certain grammatical and logical requirements described in the first part of the chapter. The format of the RSQ was developed from logical conditions for making defensible value judgements. Both the reasons themselves, and the format of the RSQ, will be discussed and evaluated, in light of the data collected from the field study samples, in the following chapter.
Chapter 5

AN EVALUATION OF THE METHOD

5.00 Introduction

To evaluate the method, it is necessary to show: (1) that the reasons gathered and used in the RSQ's fulfill certain standards which are criteria for good reasons, that is, the content dimension of the RSQ's must be evaluated; (2) that the RSQ fulfills certain standards which are criteria for coming to a rational value judgement, that is, evaluate the decision dimension of the RSQ. Evaluating the content and decision dimensions comprises a study of the content and construct validity of the instrument. In addition: (3) the reliability of the RSQ must be evaluated; and (4) the ease with which the respondents can use the RSQ must be evaluated. Each of the above four evaluations will be discussed in this chapter and will be used as part of an overall evaluation of the worth of the method.

Another important part of the evaluation of the method is to show how the data obtained from the RSQ's could be used to contribute to educational practice. That will be done in Chapter 6.

5.10 Evaluating the Content Dimension of the RSQ

5.11 Introduction

Evaluating the content dimension of the RSQ requires determining whether the reasons gathered for use on the instrument fulfill certain conditions demanded of good reasons. Those conditions were
outlined in section 4.13 of Chapter 4. The additional requirement that the set of reasons be reasonably complete was added to the first condition. Therefore, with this addition, the list of conditions is:

1) The set of reasons must be reasonably complete and must be comprised of reasons which are known to be true and/or reasons which are assumptions.
2) The reasons must be relevant.
3) The reasons must be independent of the conclusions
4) The reasons must be more easily known than the conclusion.
5) The reasons must represent a wide range of considerations.

Determining whether each of the above conditions was met by the reasons gathered and used in the RSQ's is a study of the content validity of the method. It is undertaken below.

5.12 Condition 1: The Set of Reasons Must Be Reasonably Complete and Must Be Comprised of Reasons Which Are Known to Be True and/or Reasons Which Are Assumptions.

The RSQ was designed to determine what reasons were used in making a value judgement as to the worth of a particular curriculum option. Therefore, it was necessary to provide reasons which were known to be true as well as reasons which were assumptions. Only then would the educators have a complete picture of the criteria which the community were using in making its value judgement.

The reasons which were known to be true were gathered mainly from the interviews with the experts. They were the people most likely to know, or best able to judge, whether a reason had a large component of truth. For example, the following reasons relevant to Plant Agriculture were obtained from the interviews with agricultural experts:
"The soils in and around Honiara Town are very poor for agriculture." (Reason 3, App.J)

"There is a shortage of land for agriculture in Honiara." (Reason 13, App.J)

"There are no agriculture extension workers working with the people in Honiara Town." (Reason 15, App.J)

Other examples, for reasons relevant to Religious Education and gathered from Religious Education experts, were:

"Religious Education deals with a lot of basic moral problems of town living." (Reason 6, App.J)

"The student would only get the point of view of his church, and not the points of view of other churches." (Reason 8, App.J)

"Religious Education will be about the Christian religion only." (Reason 13, App.J)

The above sets of reasons were confirmed as true. The agricultural experts showed the investigator soil maps and land usage maps, and the Religious Education experts showed the investigator copies of the syllabus for Religious Education, plus confirmation came from an expert who was teaching Religious Education at the HNSS.

However some of the reasons, synthesized from the comments of the college students and the experts, were assumptions. The assumptions were believed to be true, but there was no proof offered to support that belief. Some of the Traditional Studies reasons which could be classified as assumptions are:

"Taking a course in Traditional Studies would encourage the student to keep some of the traditional ways." (Reason 1, App.J)

"Learning about other Solomon Islands cultures would help the student get along with other Solomon Islanders." (Reason 16, App.J)

For Religious Education, some of the reasons which could be classified as assumptions are:
"The students in school have spiritual needs." (Reason 4, App.J)

"A Religious Education course would encourage non-Christian students to become Christians." (Reason 16, App.J)

Each of the assumptions offered as reasons would require an extensive empirical investigation in order to prove it true or well founded. It was neither feasible for the investigator to undertake those numerous empirical investigations, nor necessary. It was not necessary at this stage because, regardless of the truth or falsity of an assumption, the object of each RSQ was to provide each respondent with a reasonably complete set of reasons which he might be expected to consider in coming to a value judgement about each curriculum option. In addition, an educator using the results from the RSQ data would more completely know on what bases a respondent had judged the worth of an option if reasons which were assumptions were included with true reasons on the RSQ.

When the RSQ was designed, instructions were provided which directed each respondent to add any additional reasons which he considered relevant but which were not already on the RSQ. (See sections 4.21, 4.41 and Appendix K.) No respondent added any additional reasons. That fact was as least an indicator that both the community and college respondents were satisfied with the completeness of the list of reasons given them, for each curriculum option.

In summary, the above considerations support the contention that the procedures used in the study successfully provided a reasonably complete set of reasons which were true, and reasons which were assumptions, for each curriculum option.
5.13 Condition 2: The Reasons Must Be Relevant

To show that the reasons are logically relevant requires proving that there is a sound connection between each reason and the conclusion. This can be done through the procedure of validation (Taylor, 1961, pp. 80-103). Though validation is important, it does not contribute to the solution of the main instrumental problems of providing and identifying the reasons used by the people in the sample to come to a value decision. Through the procedure used to gather reasons for each RSQ, some reasons which were not logically relevant may have been included because they were reasons which were considered to be relevant by the people sampled. Thus, validation of the reasons is an appropriate part of the application of the RSQ data and will be discussed in Chapter 6 rather than in this section.

However, since the respondents had to choose reasons which they, themselves, considered relevant, it is important, for determining the validity of the RSQ to show that the respondents could assign positive or negative valence to each reason. A null category was provided on the RSQ's so that a respondent could indicate whether he considered a reason not relevant. If 100% of the respondents gave a reason a null rating, then one could safely say that the reason was not relevant; however, there is no definitive "cut-off" percentage below 100%. Therefore, it was decided that if a reason was given a null rating by two-thirds (67%), or more, of the respondents, then that would be taken as evidence for saying they did not consider the reason relevant. Figure 5-1 displays the number of reasons across all the RSQ's given null ratings by the percent of respondents placing a reason in the null category, for the community and College rating data.
Percent of Respondents Who Gave Reasons "Null" Ratings Across All 119 Reasons on the Seven RSQ's

FIGURE 5-1

From the community data, two of the twelve reasons in this interval were given null ratings by 67% to 69% of the respondents.

From the college data, two of the three reasons in this interval were given null ratings by 67% to 69% of the respondents.
Five reasons of the total of 119 reasons were placed in the null category by two-thirds or more of the community respondents; and two reasons were placed in the null category by two-thirds or more of the College respondents. The reasons placed in the null category by two-thirds or more of the community respondents were:

1) "The boys clothes would get dirty." (Reason 9, "Mechanics for Boys")

2) "Girls do not have the ability to learn how to do mechanics." (Reason 8, "Mechanics for Girls")

3) "The girls clothes will get dirty." (Reason 13, "Mechanics for Girls")

4) "The boys are too young to use modern methods of agriculture." (Reason 5, "Plant Agriculture")

5) "The boys clothes will get dirty doing Plant Agriculture at the School." (Reason 6, "Plant Agriculture")

One can speculate that reasons numbers 1, 3 and 5 in the above list likely describe actual occurrences (getting clothes dirty doing mechanics or agriculture is likely, particularly if coveralls are not available), but were not considered important enough, by two-thirds or more of the respondents, to affect a decision to include or exclude mechanics or plant agriculture in the HNSS curriculum.

Reasons numbers 2 and 4 in the above list are assumptions which may or may not be true. If they were true, then reason number 2 might be an important reason not to teach mechanics to the girls, and reason number 4 might be an important reason not to teach modern methods of plant agriculture to boys. That is, they would be relevant reasons if they were considered to be true. However, since those two reasons were placed in the null category by two-thirds or more of the community respondents one can probably assume that those respondents do not consider the reasons to be true.
The two reasons placed in the null category by two-thirds or more of the College respondents were:

1) "The boys clothes would get dirty." (Reason 9, "Mechanics for Boys")

2) "The boys clothes will get dirty doing Plant Agriculture at the School." (Reason 6, "Plant Agriculture")

In conclusion, only 5 of the 119 reasons were considered not relevant by two-thirds or more of the community respondents; and only 2 of the 119 reasons were considered not relevant by two-thirds or more of the College respondents. These figures support the conclusion that the requirement for relevant reasons has been satisfactorily met by the procedures used to develop the RSQ's.

5.14 Condition 3: The Reasons Must Be Independent From the Conclusion

The independence condition requires that the reasons do not say the same thing as the conclusion (see section 4.13). For example, a reason worded "Traditional Studies would be a good thing for the student to study" is not a good "reason" at all, for supporting that "reason" is the same as supporting the prescription "Traditional Studies should be taught to the students". Similarly, negatively worded "reasons", such as "The student would suffer if he did not have a course in Traditional Studies", are not good "reasons".

To determine whether the independence condition has been met requires that each reason for each curriculum option be examined and judged as independent from the conclusion or not. The investigator, together with a specialist in linguistics, language, and English as a second language independently and separately performed this task. Both were satisfied that the independence standard was met for all the reasons.
The reader is referred to the lists of reasons given in Appendix J to confirm this for himself.

5.15. **Condition 4: The Reasons Must be More Easily Known than the Conclusion**

Coombs and Meux (1971, p. 44) classified reasons into three kinds: (1) particular facts; (2) general facts; and (3) conditional facts. A particular factual assertion describes a specific state of affairs. For example, the following statements assert particular facts:

1) "The students would be separated in Religious Education according to the church they belonged to." (Reason 19, "Religious Studies")

2) "There are no agriculture extension workers working with the people in Honiara Town." (Reason 15, "Plant Agriculture")

3) "There is presently no syllabus which could be used for a traditional studies course in Honiara." (Reason 13, "Traditional Studies")

The above, particular factual assertions, can be verified by observing that the state of affairs exists, or by relying on reputable sources, such as experts, that the state of affairs exists.

General factual assertions are empirical generalizations. For example:

1) "Very few people in the Solomons have any training in mechanics." (Reason 6, "Mechanics for Boys")

2) "Fixing machines is not a customary role for women or girls in the Solomons." (Reason 14, "Mechanics for Girls")

Verifying or falsifying general factual assertions is done by gathering particular facts which support or refute the assertions. For example, to verify the assertion that: "Very few people have any training in mechanics" would require some sort of count of the number of people who have had training in mechanics versus those who have not had training.
Conditional factual assertions are expressed in the following examples:

1) "If a boy cannot find a job in Honiara, then he must grow his own food." (Reason 11, "Plant Agriculture")

2) "If the student has to leave Honiara, then the traditional studies course would help prepare him for village life." (Reason 8, "Traditional Studies")

3) "If the boys live away from home, then they will have to look after themselves." (Reason 11, "Homecrafts for Boys")

Some conditional factual assertions are not expressed in the "If ... then ..." format. For example:

"Taking a course in traditional studies would encourage the student to keep some of the traditional ways." (Reason 1, "Traditional Studies")

That statement can be reworded into the "If ... then ..." form as follows:

"If the student took a course in traditional studies, then he would be encouraged to keep the traditional ways."

Conditional factual assertions ... are verified by finding out whether or not anything similar to the "then" part of the assertion has in the past followed the occurrence of things similar to what is described in the "if" part of the assertion (Coombs and Meux, 1971, p. 45).

Whereas all the reason used for the RSQ's can be classified as particular, general or conditional factual assertions, it was the case that the conclusion was a value judgement in the form of a prescription (We should (should not) teach X to the students in the Honiara NSS.")

Verifying the reasons involves an empirical investigation for each reason; verifying the value judgement requires determining whether or not all the reasons used to come to the value judgement really are relevant and true.

Therefore, verifying the value judgement requires accepting the reasons which are used to make the judgement and then verifying each
reason individually. Thus, it is a simpler task to verify a single reason which, along with other reasons, is used to arrive at a value judgement than it is to verify the value judgement. In-depth treatment of this matter can be found in Taylor (1961, pp. 76-80) and Daniels (1971, pp. 4-11).

In conclusion, since all the reasons on the RSQ's can be classified as particular, general or conditional factual assertions, and since the conclusion reached by each respondent is a value judgement, then the requirement that the reasons must be more easily known than the conclusion has been met.

5.16 **Condition 5: The Reasons Must Represent a Wide Range of Considerations**

Gathering reasons from a wide range of considerations helps to ensure that the person using those reasons to arrive at a value judgement has not omitted any relevant areas of concern. Since the value judgements formulated by using the RSQ's are prescriptions recommending certain curriculum options for inclusion in, or omission from, the total curriculum of a particular kind of school, then the relevant concerns are those which affect people. Some of these concerns include concern for economic welfare, health concerns, recreation and activity concerns, and aesthetic concerns (Coombs and Meux, 1971, p. 38); and religious concerns, political concerns, moral concerns, legal concerns, custom and etiquette concerns, and intellectual concerns (Taylor, 1961, p. 300).

The reasons used, on a RSQ for a particular curriculum option, were not from all of the areas of concern cited above. Certain concerns are more relevant to some of the curriculum options than others. For example, economic concerns are more relevant to "Mechanics" than to
"Religious Education".

As well, one may be able to classify a single reason under more than one concern. For example, "The girls clothes will get dirty" (Reason 13, "Mechanics for Girls") could be considered to be a health concern, an aesthetic concern or a custom and etiquette concern.

Some examples of reasons to illustrate each concern are (see Appendix J for the reasons for each curriculum option):

A) **Economic Welfare Concerns**

(1) The vegetables the boys learned to grow could be sold in the Honiara Market (Reason 7, "Plant Agriculture").

(2) The boys could make some money by repairing other people's machines (Reason 11, "Mechanics for Boys").

B) **Health Concerns**

(1) "The boys would learn to grow crops other than just traditional crops (Reason 4, "Plant Agriculture") (Reason 18, "Plant Agriculture").

(2) "Most Solomon Islanders are healthy using the traditional methods of homecrafts" (Reason 1, "Homecrafts for Boys").

C) **Recreation and Activity Concerns**

(1) "The students could use some of the things they learn in Traditional Studies for their own enjoyment (Reason 11, "Traditional Studies").

(2) "The boys will use outboard engines and other machines when they get older" (Reason 1, "Mechanics for Boys").

D) **Aesthetic Concerns**

(1) "The girls clothes will get dirty" (Reason 13, "Mechanics for Girls").

(2) "The boys clothes will get dirty" (Reason 9, "Mechanics
E) Religious Concerns
(1) "The students in the school have spiritual needs" (Reason 4, "Religious Education").
(2) "Religious Education will be about the Christian religion only" (Reason 13, "Religious Education").

F) Political Concerns
(1) "By learning about different Solomon Island customs and traditions, the student could look at the Solomon Islands as a single nation" (Reason 19, "Traditional Studies").

G) Moral Concerns
(1) "A Traditional Studies course would give the student some traditional rules and ways to behave" (Reason 3, "Traditional Studies").
(2) "The student would only get the point of view of his church, and not the points of view of other churches" (Reason 8, "Religious Education").

H) Legal Concerns
(1) "Religious Education would teach a student to obey the law" (Reason 3, "Religious Education").

I) Custom and Etiquette Concerns
(1) "Fixing machines is not a customary role for women or girls in the Solomons" (Reason 14, "Mechanics for Girls").
(2) "Homecrafts is girls' or women's work by custom and tradition in the Solomons" (Reason 5, "Homecrafts for Girls").

J) Intellectual Concerns
(1) "Girls do not have the ability to learn how to do mechanics" (Reason 8, "Mechanics for Girls").
(2) "There are too many different customs and traditions for the student to learn them all" (Reason 10, "Traditional Studies").

Figure 5-2 illustrates how each reason could be classified under the various concerns, for each curriculum option. Some of the reasons have been classified under more than one concern. The classification is based on the investigator's judgement in light of his experience in the Solomon Islands.

In conclusion, the requirement for a wide range of relevant considerations appears to have been met.

5.17 Summary of the Evaluation of the Content Dimension

This section has demonstrated that the reasons used for the RSQ's fulfill all the standards required of them. The standards which were used to evaluate the reasons were derived from the writings of Taylor (1961), Scriven (1966), Coombs (1971), Coombs and Meux (1971), and Daniels (1971). Therefore, it can be concluded that the reasons used for the RSQ's content are:

1) True or assumptions, and form a complete set;
2) Relevant;
3) Independent of the conclusions;
4) More easily known than the conclusions;
5) Represent a wide range of considerations.

Therefore, the conclusion is that the method of gathering the reasons provided good reasons in the context of the study, and thus the method is valid, and the reasons have high content validity.
<table>
<thead>
<tr>
<th>Curriculum Option</th>
<th>Economic</th>
<th>Health</th>
<th>Recreation</th>
<th>Aesthetic</th>
<th>Religious</th>
<th>Political</th>
<th>Moral</th>
<th>Legal</th>
<th>Custom</th>
<th>Intellect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanics for Boys</td>
<td>11,2,4,5,7,10,11,12,18</td>
<td>3,9</td>
<td>1,7</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanics for Girls</td>
<td>1,3,7,9,10,12,15,16,18</td>
<td>4,5,8,13</td>
<td>1</td>
<td>13,14</td>
<td></td>
<td>14</td>
<td></td>
<td>14,2,6,10,13,14,15,16,17,18</td>
<td>14,2,6,10,13,14,15,16,17,18</td>
<td></td>
</tr>
<tr>
<td>Homecrafts for Boys</td>
<td>2,5,13,15</td>
<td>1,4,9,11,12,14,16</td>
<td>14</td>
<td></td>
<td></td>
<td>16,11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homecrafts for Girls</td>
<td>4,3,10,16,8,13,12,14,6,7</td>
<td>14</td>
<td></td>
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<td>5,8,11,9,2,14,6,7,16,17</td>
<td>7,8</td>
<td></td>
</tr>
<tr>
<td>Plant Agriculture</td>
<td>7,3,9,10,11,12,13,14,18</td>
<td>18,4,5,6,17,18</td>
<td>6</td>
<td></td>
<td>13,14,15</td>
<td>11</td>
<td></td>
<td>1,6,8,13,14,17</td>
<td>4,5,8,16</td>
<td></td>
</tr>
<tr>
<td>Traditional Studies</td>
<td>6,12</td>
<td>11,6,12,18</td>
<td>6,7,12,14,15,18</td>
<td>4</td>
<td></td>
<td>19,16</td>
<td>3,4,8,9,14,16</td>
<td>3,9,16</td>
<td>1,2,6,7,8,9,11,12,14,15,17,18,19,2,10,5,7,13,17</td>
<td></td>
</tr>
<tr>
<td>Religious Education</td>
<td>5,15</td>
<td>4,13,12,14,17,18</td>
<td>5,9,11,15,19</td>
<td>17,9,8,2,5,6,10,11,12,15,16,19</td>
<td>3</td>
<td>7,10,16,17,19</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: the numerals refer to the reason number for the curriculum option (see Appendix III).
5.20 Evaluating the Decision Dimension of the RSQ

5.21 Introduction

The format of the RSQ was designed so that the reasons were rated and ranked in a particular manner. In order to make claims about the worth of the method developed and explained in this dissertation it is necessary to examine the logic of the format of the RSQ. Therefore, this section is a study of the construct validity of the instrument.

5.22 Conditions Needed for Arriving at Defensible Value Judgements

The most important characteristic of a value judgement is that it cannot be made by simply reporting what is observably the case. As Russell (1910) wrote:

"... There is, so far as I can discover, no self-evident proposition as to the goodness or badness of all that exists, or has existed or will exist. It follows that, from the fact that the existent world is of such and such a nature, nothing can be inferred as to what things are good or bad (p. 7)."

Other writers such as Frankena (1973, p. 97), Hare (1965, p. 87), Coombs (1971, p. 8), Taylor (1961, pp. 48-67) have taken similar positions.

What these writers say is that simply listing observable or empirically verifiable properties of that which is to be evaluated (the value object) does not constitute a value judgement. For example, simply pointing out that an automobile is blue in colour, has a five-speed transmission and 400 horsepower does not make the car a good car unless certain logical rules are followed which connect the descriptive properties of the car to the value judgement "It is a good car".

Paul Taylor (1961) has analyzed the logical conditions necessary for a value judgement. He sets out the process of arriving at a value
Judgement as a process of reasoning, with the following caution:

This analysis is not meant to be a psychological account of what happens in our heads when we evaluate something. I am not trying to describe or explain our thought processes as they actually occur. I am trying instead to make explicit the pattern or structure of the logic of our thinking (p. 9).

Taylor's caution is important in this dissertation, for the method developed here is not to investigate the complex psychological processes that a person might use in coming to a value judgement, but to develop a simple format which would maximize the possibility of a person making a rational value judgement, and to display the reasons he considered important in arriving at his judgement.

The conditions for making a value judgement, which Taylor identified, are, in rearranged order and reworded (Daniels, 1971, p. 5):

1) There must be a class of comparison.
2) There must be adoption of a standard or a set of standards.
3) The value object must have characteristics which enable us to determine whether it fulfills or fails to fulfill the standards.
4) The person making the value judgement must have taken some attitude toward the value object.
5) The person making the value judgement must have adopted a point of view or points of view.

5.23 Fulfilling the Conditions for Making Value Judgements

As part of the administration of the RSQ, the investigator read, to each respondent, the aims of the Honiara New Secondary School, and the characteristics of the Schools and students (see Appendix M). It was explained to each respondent that he would be deciding whether or not the curriculum option should be included in the curriculum of
the HNSS. Thus, the class of comparison would be all those curriculum options which had some chance of fulfilling the aims of the School within the limitations of the characteristics of the students and the School.

As was previously described (see section 4.41 of Chapter 4), the respondent selected reasons which he considered reasons why the curriculum option should be included or why it should not be included. The respondent placed reasons which he thought did not apply in the "null" category. The reasons were assertions that the curriculum option had certain characteristics. The respondent identified the most important reasons which, for him, had positive valence; and he identified the most important reasons which, for him, had negative valence. By doing this, the respondent had adopted certain standards which he considered relevant and important to use in making his value judgement. That is, the standards he used could be identified from the reasons that he marked as most important.

Once the respondent had identified those reasons which had positive or negative valence, and those which did not apply, he was asked to indicate whether he agreed or disagreed with the prescriptive statement that the curriculum option should be taught in the HNSS, and to indicate the extent of his agreement or disagreement. In other words, he took some attitude toward the value object (the curriculum option). The point of view he took can be surmised by examining the standard(s) he applied.

An example of a single community respondent's data will be used to illustrate the above considerations.
An Analysis of a Respondent's Data For the "Religious Education" RSQ

The respondent chosen for this example was a male employed as an administrator in a government office. His responses to the Religious Education RSQ are divided in the following paragraphs according to the valence he assigned each reason.

1) The Reasons he chose as reasons why we should teach Religious Education (R.E.) in the HNSS were:

   Reason 3: "Religious Education would teach a student to obey the law."
   Reason 6: "Religious Education deals with a lot of basic moral problems of town living."
   Reason 13: "Religious Education will be about the Christian religion only."
   Reason 14: "The student would be taught about God and Jesus."
   Reason 16: "Religious Education would show a student how he could be free from the fears and magic of Custom religion."
   Reason 17: "A Religious Education course would encourage non-Christian students to become Christians."
   Reason 18: "Religious Education would give simple Christianity to students who would not get any religion at home."

2) The Reasons he chose as reasons why we should NOT teach Religious Education in the HNSS were:

   Reason 1: "Even if a student did not feel religious he or she would be expected to go to Religious Education."
   Reason 2: "Religious Education will not help, very much, a student who hasn't got Christian beliefs in the family."
   Reason 5: "Religious Education might show that some kinds of economic development in the Solomons are wrong."
   Reason 8: "The student would only get the point of view of his church, and not the point of view of other churches."
   Reason 11: "Religious Education is something that is a job for in the church, and not a job for in the school."
Reason 18: "Taking Religious Education might make the student more willing to give money to the church."

Reason 19: "The students would be separated in Religious Education according to the church they belonged to."

3). The Reasons he placed in the "null" category were:

Reason 4: "The students in school have spiritual needs."

Reason 7: "Most parents would want their children to take Religious Education."

Reason 9: "The members of the Solomon Islands Christian Association think that Religious Education should be taught in the School."

Reason 10: "The things the students learn in Religious Education may not agree with custom and traditional beliefs."

Reason 12: "Some of the churches are not worried about whether there is Religious Education in the School."

Figure 5-3 displays those reasons which the respondent identified as important reasons.

The respondent in this example indicated that he disagreed with the prescriptive statement: "Religious Education should be taught to the students in the Honiara New Secondary School". Therefore, he gave the reasons he considered important reasons why R.E. should NOT be taught greater weight in his value judgement than the reasons he considered important reasons why R.E. should be taught.

To simplify the discussion: if we assume that he based his value judgement on comparing the positive valence reason and the negative valence reason he identified as most important, then we could say that his standard of freedom of choice to participate in Religious Education carried more weight than his standard of potential obedience to the law. Therefore he has probably taken the moral point of view.
**FIGURE 5-3**

A Respondent's Important Reasons For and Against Religious Education in the HNSS

<table>
<thead>
<tr>
<th>Most Important</th>
<th>Important Reasons Why We Should Teach R.E.</th>
<th>Important Reasons Why We Should Not Teach R.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reason 3: &quot;Religious Education would teach a student to obey the law.&quot;</td>
<td>Reason 1: Even if a student did not feel religious, he would be expected to go to Religious Education.</td>
</tr>
<tr>
<td>2nd Most Important</td>
<td>Reason 14: &quot;The student would be taught about God and Jesus.&quot;</td>
<td>Reason 11: &quot;Religious Education is a job for in the church and NOT a job for in the school.&quot;</td>
</tr>
<tr>
<td>3rd Most Important</td>
<td>Reason 16: &quot;Religious Education would show a student how he could be free from the fears and magic of Custom religion.&quot;</td>
<td>Reason 8: &quot;The student would get the point of view of his own church and not the points of view of other churches.&quot;</td>
</tr>
</tbody>
</table>
The procedure he used to arrive at his value judgement was likely much more complex than this; but this example was presented to demonstrate that the method used in the RSQ did fulfill the necessary conditions for making a defensible value judgement. If the respondent was not purposely being misleading, then we can make some reasonable claims about the kinds of issues he considered when he disagreed with teaching Religious Education in the HNSS.

5.25 Summary of the Evaluation of the Decision Dimension

This section has shown that the decision dimension of the RSQ has a logical, defensible structure and fulfills the conditions laid down in the literature on value judgements. Thus, the claim is made that the method used, to obtain the reasons people consider when recommending or not recommending certain curriculum options, has high construct validity.

5.30 Summary

The previous sections on the Content Dimension and the Decision Dimension of the RSQ's have shown that a reasonably complete set of relevant reasons can be gathered for each curriculum option, and that those reasons can be placed in a logical format. By using the RSQ, the respondent is able to engage in a deliberate procedure, using a greater range of relevant reasons than he otherwise might have thought of, in making a value judgement. In addition, an examination of the data obtained from the RSQ would allow reasonable claims to be made about the issues the respondent brought to bear on his value judgement vis-a-vis the curriculum options. The content dimension of the method was
evaluated as having high content validity, and the decision dimension of the method was evaluated as having high construct validity. Both of these evaluations will be used in determining whether the method was a good method overall.

5.40 An Evaluation of the Reliability of the Method

5.41 Test-Retest Reliability of the Reasons' Ratings on the RSQ

Section 4.50 in Chapter 4 described the reliability study. Since the RSQ is an instrument composed of heterogeneous items, the most important reliability estimate for it is test-retest reliability (Guilford and Fruchter, 1973, p. 407). The retest method yields information about the stability of the obtained rank order of reasons, across people, for an RSQ, over a period of time.

The reliability coefficient was determined by calculating the average rating for each reason, converting the average ratings to ranks, and calculating Spearman's "r" for ranks between the rank order of reasons obtained from the first administration of the RSQ with the rank order obtained from the second administration of the RSQ (for only the reliability sample). The results of these calculations are presented in Table 5-1.

As can be seen from Table 5-1, all the reliability coefficients are greater than 0.90. These high values indicate that the relative importance of the reasons as perceived by the people in the sample, and for each curriculum option used, remained relatively unchanged over the one month time period.
### TABLE 5-1

RSQ Test-Retest Reliability Coefficients for the Community and College Reliability Samples

<table>
<thead>
<tr>
<th>Curriculum Option</th>
<th>Community Sample*</th>
<th>College Sample**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample Size</td>
<td>Reliability Coefficient</td>
</tr>
<tr>
<td>Mechanics for Boys</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Mechanics for Girls</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Homecrafts for Boys</td>
<td>14</td>
<td>0.92</td>
</tr>
<tr>
<td>Homecrafts for Girls</td>
<td>14</td>
<td>0.93</td>
</tr>
<tr>
<td>Plant Agriculture</td>
<td>9</td>
<td>0.92</td>
</tr>
<tr>
<td>Traditional Studies</td>
<td>15</td>
<td>0.90</td>
</tr>
<tr>
<td>Religious Education</td>
<td>13</td>
<td>0.93</td>
</tr>
</tbody>
</table>

* individual administration  
** group administration  
*** not included in the reliability study (see section 4.50 of Chapter 4).

5.42 Test-Retest Reliability of the Agree-Disagree Rating on the RSQ's

The agree-disagree rating was a single item response on the RSQ. Therefore, using techniques which require multiple-item responses to estimate reliability would yield misleading information. For that reason, a gross indicator of response stability was used. A simple count was taken of the number of respondents who switched from "agree" in the first administration of the RSQ to "disagree" in the second administration. In the community sample two people switched their ratings, and in the college sample only one person switched his rating. That
information indicated that, for the persons in the reliability sample, there was high stability in their overall recommendatory conclusion to recommend or not recommend the particular curriculum option being considered.

5.43 **Summary**

In summary, the reliability study indicated that there was high stability in the responses given to each RSQ by the persons in the study, over a one month period of time. Therefore, if the opinions and knowledge of the people being surveyed remain fairly constant, the RSQ is a reliable method of determining the reasons those people used to arrive at their overall value judgement of whether or not a particular curriculum option should be taught. In addition, their conclusion (we should or should not teach the curriculum option) is stable. That observation is in agreement with the stability of ratings of curriculum options found by other researchers (Brittingham and Netusil, 1976). Therefore, the method used to identify the reasons used in coming to a value judgement as to whether a curriculum option should be taught is evaluated as having high reliability.

5.50 **Evaluating the Usability of the Method**

An important characteristic of the method is the ease or difficulty the respondents had in completing the RSQ. Two questions to be asked to determine the usability of the instrument are:

1) Are the instructions understandable?

2) Does the RSQ require an inordinate amount of time to complete?

With respect to the first question, the instructions were understandable if the person completing the RSQ had a certain minimum know-
ledge and understanding of written and spoken English. In a country such as Canada, most people have this minimum understanding; however, in the Solomon Islands that was not the case for all the respondents. The sample used to test the RSQ was chosen so as to maximize the possibility of obtaining people who could understand English. However, even within this sample, the workers classified as Production III were unable to complete the RSQ because of a lack of facility with written and spoken English. As mentioned in Chapter 4 (section 4.31), it would not have helped to translate the RSQ into the lingua franca, Pijin, because Pijin is an oral language in the Solomons, not a written language. Nor would it have been practical to present the RSQ orally (in either Pijin or some other language) because the respondent needed to rank the reasons once they had been given positive or negative valence. It may be possible to present the RSQ verbally, if each reason is responded to on a rating scale; for example, a rating scale ranging from "a very important reason why we should have the course" to "a very important reason why we should NOT have the course". However, in this study, that was not done, because there appeared to be a tendency for the respondents to mark in the extremes of the rating scales. Nevertheless, using a rating scale may be a useful avenue for further study of the RSQ technique.

If the respondents could understand the instructions, and all in the sample except Production III workers were able to, each RSQ took between five and ten minutes to complete. The community respondents estimated that it required about one hour to complete the seven RSQ's given them. Explaining the instructions to each respondent took about twenty minutes. About the same time was required to explain the instructions to the college students under group administration. None
of the respondents indicated, when asked, that they found the task too time consuming.

In summary, if the RSQ technique is to be used in a society in which there are a large number of illiterate people then it would probably be useful to adjust the format so that the RSQ could be presented orally. However, among the literate members of the society, the format developed and used in this study was understandable and easily used. Therefore, in a highly literate society, or sample, the usability of the method is rated high. In a society or sample with low literacy, the method would have to be rated low.
CHAPTER 6

Analysis Strategies

6.00 Introduction

This chapter will attempt to demonstrate how the information obtained from the RSQ's can be used to contribute to educational practice. The first analysis strategy to be discussed is that which the educational practitioners might use to design a course or to decide whether to implement a course. Since it is addressed to the practitioner, the analysis strategy will avoid complex statistical analysis of the information, and, instead, focus on a more conceptual approach.

The second analysis strategy will attempt to show how the information obtained from the administration of the RSQ could be used to answer potential research questions requiring more statistical treatment of the data.

There is no intention to imply that the first analysis strategy is better or worse than the second analysis strategy. Nor is there any intention to suggest that the strategies outlined in this chapter are the only ways the RSQ information can be treated. The strategies were chosen to illustrate two different potential uses for the RSQ information. As well, the strategies will not be used to make substantive claims about the Solomon Island people or their value systems.
6.10 Analysis Strategies I: Conceptual Procedures

6.11 Introduction

Let us assume that an educational administrator is considering implementing a course in "Traditional Studies" in the Honiara New Secondary School. Let us also assume he wanted to know whether the Honiara people thought such a course should be taught to the students in the HNSS, and why the Honiara people thought the course should or should not be taught. Thus he developed the "Traditional Studies" RSQ, had a representative sample of the population complete it, and scored and summarized the data from their responses.

So that the example has some credence, the actual community data collected in this study will be used.

6.12 Examination of the Data

Before the content of each reason on the RSQ is treated, the distribution of responses for each reason should be examined. This should be done to check for bimodal responses; that is, to check whether a large percentage of the respondents consider a particular reason a reason why the course should be taught while another large percentage of the respondents consider the same reason a reason why the course should not be taught. If there was a bimodal response to a reason, then it would not be accurate to use the mean rating value calculated for that reason as a descriptor of its importance. For this example if one-third or more of the respondents gave a reason a negative rating and one-third or more of the respondents gave the same reason a positive rating, then the response pattern would be considered bimodal. Table 6-1 displays the response pattern for each reason for the curriculum option "Traditional Studies". In Table 6-1 the reasons have been arranged in descending rank order
TABLE 6-1

Community Response Pattern for the Traditional Studies RSQ
(Percent of Respondents For Each Rating)

<table>
<thead>
<tr>
<th>Rating</th>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>+1</th>
<th>+2</th>
<th>+3</th>
<th>+4</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>40</td>
<td>12</td>
<td>12</td>
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<td>16</td>
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<td>17</td>
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<td>10</td>
<td>13</td>
<td></td>
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</tr>
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<td>0</td>
<td>2</td>
<td>10</td>
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<td>8</td>
<td>12</td>
<td></td>
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<td>6</td>
<td>71</td>
<td>10</td>
<td>6</td>
<td>4</td>
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<td>4</td>
<td>83</td>
<td>4</td>
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<td>6</td>
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<td>50</td>
<td>17</td>
<td>2</td>
<td>2</td>
<td>0.135</td>
</tr>
<tr>
<td>15</td>
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<td>0</td>
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<td>12</td>
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<td>4</td>
<td>8</td>
<td>25</td>
<td>38</td>
<td>17</td>
<td>2</td>
<td>-0.500</td>
</tr>
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<td>6</td>
<td>23</td>
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<td>13</td>
<td>2</td>
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<td>6</td>
<td>6</td>
<td>2</td>
<td>-0.635</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>8</td>
<td>10</td>
<td>46</td>
<td>10</td>
<td>2</td>
<td>2</td>
<td>-0.808</td>
</tr>
<tr>
<td>18</td>
<td>0</td>
<td>0</td>
<td>23</td>
<td>6</td>
<td>13</td>
<td>40</td>
<td>10</td>
<td>2</td>
<td>2</td>
<td>-1.288</td>
</tr>
</tbody>
</table>
according to the mean of the ratings. No reason has a bimodal response pattern when compared with the criterion for bimodality given above.

The next problem facing the administrator is to decide how high a mean rating must be before a reason could be considered an important reason why Traditional Studies should be included in the curriculum; and how low a mean rating must be before a reason could be considered an important reason why Traditional Studies should not be included in the curriculum. One way this problem could be solved is by determining the response pattern a reason would have under the null hypothesis that the population responds randomly to the reasons. Under that hypothesis, one-third of the population would give a reason positive valence, one-third would give it negative valence, and one-third of the population would give the reason a "null" rating. From this theoretical distribution quintiles could be constructed so that twenty percent of the responses were in each quintile. Thus the upper quintile could be labelled "High Positive"; the next quintile "Low Positive"; the middle quintile "Neutral"; the second lowest quintile "Low Negative"; and the lowest quintile could be labelled "High Negative". Therefore, each reason could be labelled in relation to the theoretical distribution, depending on the mean of the scores assigned to that reason. This classification of reasons is an artificial technique which will help group the reasons into definable categories.

The investigator has shown elsewhere (Appendix N) that, under the null hypothesis of random response to each reason, the following proportions of total response can be assigned to each rating:

<table>
<thead>
<tr>
<th>Scoring Value</th>
<th>Expected Proportion of Responses Under the Null Hypothesis of Random Response to Each Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>-4</td>
<td>( \frac{1}{r} )</td>
</tr>
</tbody>
</table>
\[-3 \quad \frac{1}{r} \]
\[-2 \quad \frac{1}{r} \]
\[-1 \quad \frac{1}{3} - \frac{3}{r} \]
\[0 \quad \frac{1}{3} \]
\[+1 \quad \frac{1}{3} - \frac{3}{r} \]
\[+2 \quad \frac{1}{r} \]
\[+3 \quad \frac{1}{r} \]
\[+4 \quad \frac{1}{r} \]

\(r\) = number of reasons on the RSQ

Therefore, under the null hypothesis of random response to each reason, the distribution of responses for each reason, for the topic Traditional Studies, will look like the graph in Figure 6-1.

**FIGURE 6-1**

Response Pattern for Traditional Studies' Reasons

Under the Null Hypothesis of Random Response

![Graph showing the response pattern for Traditional Studies' reasons](image)
Quintiles can be constructed using standard procedures (see for example Glass and Stanley, 1970, p. 35). From the above distribution (Figure 6-1), the quintile ranges are:

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Range</th>
<th>Label Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.23 to 4.00</td>
<td>High Positive (HP)</td>
</tr>
<tr>
<td>2</td>
<td>0.31 to 1.22</td>
<td>Low Positive (LP)</td>
</tr>
<tr>
<td>3</td>
<td>-0.30 to 0.30</td>
<td>Neutral (Z)</td>
</tr>
<tr>
<td>4</td>
<td>-1.22 to -0.31</td>
<td>Low Negative (LN)</td>
</tr>
<tr>
<td>5</td>
<td>-4.00 to -1.23</td>
<td>High Negative (HN)</td>
</tr>
</tbody>
</table>

Therefore, given the information displayed in Table 6-1, the administrator could subdivide the set of Traditional Studies (TS) reasons on the basis of their mean ratings in the following way:

- **Description of Quintile**
  - **1)** High positive (HP) reasons why we SHOULD teach TS in the HNSS. Reason Numbers: 1, 16, 8, 7, 19
  - **2)** Low positive (LP) reasons why we SHOULD teach TS in the HNSS. Reason Numbers: 3, 9, 14, 11, 12, 16
  - **3)** Reasons which aren't considered relevant (Z). Reason Number: 13
  - **4)** Low negative (LN) reasons why we SHOULD NOT teach TS in the HNSS. Reason Numbers: 15, 4, 2, 17, 10
  - **5)** High negative (HN) reasons why we SHOULD NOT teach TS in the HNSS. Reason Number: 18

**6.13 Listing and Ranking the Positive and Negative Reasons**

From the mean ratings and the quintile ranges the administrator can rank the reasons and label each as high positive, low positive, neutral, low negative or high negative. Figures 6-2 and 6-3 display the result of doing this for the positive reasons and the negative
reasons respectively. The reason given a neutral rating, reason 13, was omitted.

### FIGURE 6-2

Traditional Studies Reasons Given Positive Valence

<table>
<thead>
<tr>
<th>Reason</th>
<th>Rank</th>
<th>Mean Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Positive Reasons</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Taking a course in TS (Traditional Studies) would encourage the students to keep some of the traditional ways (Reason 1).</td>
<td>1</td>
<td>2.27</td>
</tr>
<tr>
<td>b) Learning about other Solomon Islands cultures would help the student get along with other Solomon Islanders (Reason 16).</td>
<td>2</td>
<td>1.94</td>
</tr>
<tr>
<td>c) If the student has to leave Honiara, the TS course would help prepare him for village life (Reason 8).</td>
<td>3</td>
<td>1.65</td>
</tr>
<tr>
<td>d) Very few of the students know anything about their own cultures and traditions (Reason 7).</td>
<td>4</td>
<td>1.52</td>
</tr>
<tr>
<td>e) By learning about different Solomon Islands customs and traditions, the student could look at the Solomons as a single nation (Reason 19).</td>
<td>5</td>
<td>1.48</td>
</tr>
<tr>
<td><strong>Low Positive Reasons</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) A traditional or cultural studies course would give the student some traditional rules and ways to behave (Reason 3).</td>
<td>6</td>
<td>1.14</td>
</tr>
</tbody>
</table>
FIGURE 6-2 (Continued)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Rank</th>
<th>Mean Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>g) The students would learn what was taboo in the different cultures of the Solomon Islands (Reason 9).</td>
<td>7.5</td>
<td>1.04</td>
</tr>
<tr>
<td>h) TS will teach the student some of the ways of the old people in the Solomons (Reason 14).</td>
<td>7.5</td>
<td>1.04</td>
</tr>
<tr>
<td>i) The students could use some of the things they learn in TS for their own enjoyment (Reason 11).</td>
<td>9</td>
<td>0.92</td>
</tr>
<tr>
<td>j) The student could sell the traditional crafts he makes for money (Reason 12).</td>
<td>10</td>
<td>0.89</td>
</tr>
<tr>
<td>k) The students could demonstrate some of the traditional ways to tourists for money (Reason 6).</td>
<td>11</td>
<td>0.60</td>
</tr>
</tbody>
</table>

FIGURE 6-3

Traditional Studies Reasons Given Negative Valence

<table>
<thead>
<tr>
<th>Reason</th>
<th>Rank</th>
<th>Mean Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Negative Reasons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Most students in town will not use traditional or custom ways.</td>
<td>1</td>
<td>-1.29</td>
</tr>
</tbody>
</table>
Low Negative Reasons

b) There are too many different customs and traditions for the student to learn them all. 2 -0.81

c) Learning different traditions might confuse the students in the HNSS. 3 -0.64

d) The course would not teach the students anything which is modern. 4 -0.58

e) The students are too young to get anything out of a TS course. 5.5 -0.50

f) The things the students learn in TS may not agree with what they are told in Religious Education. 5.5 -0.50

g) The Honiara people do not have any traditional ways. 7 -0.39

6.14 Formulating Criteria From Reasons

Once the reasons have been identified as positive and negative and their relative importance determined (High Positive, Low Negative, etc.), then a criterion can be formulated from the reason's valence and its content. Determining the criterion is important because it articulates the value principle which the respondents are using in making their value judgement.

A criterion is composed of three items: a comparison class, a characteristic, and a value term (Casper, 1971, p. 184). The comparison class is derived from the class of things being rated; the characteristic
comes from the reason; and the value term comes from the rating. For example, the value judgement: "Traditional Studies (TS) should be taught in the Honiara NSS", is a rating of the worth of including TS in the HNSS (the rating term, or value term, is "should"). The comparison class is all those courses which might be taught in the HNSS. Those courses have been called "Curriculum Options". Thus, the criterion is a more general application of the characteristic used in making the value judgement. The characteristic could be any one of the reasons given high positive valence. The criterion is derived from the reason and the rating. Therefore, the formulation of a criterion might look as follows:

Rating (Value Judgement)  
Traditional Studies should be taught in the HNSS.

Reason (Characteristic)  
Learning about other Solomon Islands cultures would help the student get along with other Solomon Islanders.

The CRITERION  
which help the student get along with other Solomon Islanders.

Curriculum options  
which help the student get along with other Solomon Islanders.

COMPARISON CLASS  
CHARACTERISTIC  
RATING

The same procedure can be used to formulate the criteria for the rest of the positive reasons and the negative reasons. The criteria formulated from the positive reasons will be called positive criteria, and are displayed in figure 6-4. The negative criteria, from the negative reasons, are displayed in figure 6-5. The symbols PCn and NCn
are used to identify the positive criteria, and the negative criteria respectively. The symbol "n" is the rank of the reason from Figure 6-2 or 6-3, used to produce the criterion.

<table>
<thead>
<tr>
<th>Comparison Class</th>
<th>Characteristic</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC₁ Curriculum</td>
<td>which encourage students to keep traditional ways</td>
<td>should be taught in the HNSS</td>
</tr>
<tr>
<td>options</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC₂ same</td>
<td>which help the student get along with other Solomon</td>
<td>same</td>
</tr>
<tr>
<td></td>
<td>Islanders</td>
<td></td>
</tr>
<tr>
<td>PC₃ same</td>
<td>which would prepare students for living in the village</td>
<td>same</td>
</tr>
<tr>
<td>PC₄ same</td>
<td>which would tell students about their own cultures and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>traditions</td>
<td></td>
</tr>
<tr>
<td>PC₅ same</td>
<td>which would help the student look at the Solomon Islands</td>
<td></td>
</tr>
<tr>
<td></td>
<td>as a single nation</td>
<td></td>
</tr>
<tr>
<td>PC₆ same</td>
<td>which would provide the student with behavioural</td>
<td></td>
</tr>
<tr>
<td></td>
<td>rules</td>
<td></td>
</tr>
<tr>
<td>PC₇ same</td>
<td>which would identify what was taboo in other Solomon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Island cultures</td>
<td></td>
</tr>
</tbody>
</table>
FIGURE 6-4 (Continued)

PC\textsubscript{8} same

which would teach the same student some of the "old" ways

PC\textsubscript{9} same

which would provide the same student with skills they can use for their own enjoyment

PC\textsubscript{10} same

which would teach the same students how to make saleable products

PC\textsubscript{11} same

which would teach the same student skills which he could demonstrate for money.
FIGURE 6-5
Criteria Derived From TS Negative Valence Reasons

<table>
<thead>
<tr>
<th>Comparison Class</th>
<th>Characteristic</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC(_1) Curriculum options</td>
<td>which teach the students thing they won't use in town</td>
<td>should NOT be taught in the HNSS</td>
</tr>
<tr>
<td>NC(_2) same</td>
<td>which contain too many different topics for the student to learn</td>
<td>same</td>
</tr>
<tr>
<td>NC(_3) same</td>
<td>whose variety of content would confuse the student</td>
<td>same</td>
</tr>
<tr>
<td>NC(_4) same</td>
<td>which do not teach anything modern</td>
<td>same</td>
</tr>
<tr>
<td>NC(_5) same</td>
<td>which are too advanced for the age of the students</td>
<td>same</td>
</tr>
<tr>
<td>NC(_6) same</td>
<td>which contain content which conflicts with religious teachings</td>
<td>same</td>
</tr>
<tr>
<td>NC(_7) same</td>
<td>which teach something that cannot be used in town</td>
<td>same</td>
</tr>
</tbody>
</table>
Determining the Acceptability of the Criteria

Once the criteria have been synthesized from the comparison class, characteristics and ratings, it becomes necessary to determine the acceptability of each criterion. Determining the acceptability of each criterion is different from determining whether the criterion is true or false. The criteria were formulated from reasons about: (1) the kind of traditional studies course which might be taught; (2) potential outcomes of the course; (3) social or cultural assumptions about the course; and (4) characteristics of the students who might take the course. But, the course had not yet been developed. Therefore, the criteria are formulated from some reasons which are assumptions. As a result, making statements about the truth or falsity of the assumptions is not valid until the course has been developed, or until the reasons have been shown to be true or well-founded. However, one can make statements about the acceptability of the criterion assuming the assumption (characteristic) on which it is based is true. For example, one of the reasons identified as a reason why Traditional Studies (TS) should NOT be taught to the students was:

"The things the students learn in TS may not agree with what they are told in Religious Education." (Figure 6-2, Reason f)

The criterion for that reason was:

"Curriculum options which contain content which conflicts with religious teachings should not be taught."

The question is whether or not the criterion is acceptable: that is whether, in the cultural milieu of the Solomon Islands and in their value system, it is not acceptable to teach things which conflict with religious teachings. If the criterion is acceptable (i.e. content which conflicts with religious teachings should not be taught), then the
Traditional Studies course must be developed so that it does not contain the conflicting content (assuming that a traditional studies course should be taught at all). Thus the content of the course will be determined by the acceptability of the positive and negative criteria. This will be discussed in more detail in the section which follows this section.

Determining the acceptability of the criteria is, in the opinion of P.W. Taylor (1961), a process of validation. Validation is an "... attempt to show that the criterion adopted in evaluation was a good criterion. This we do by appealing to a 'higher' or 'more fundamental' principle ... which we believe would show clearly that our criterion is a valid one." (Daniels, 1971, p. 3; see also Taylor, 1961, p. 80). To perform a complete validation requires showing that:

(1) The criterion is relevant.

(2) There are no reasons why an exception should be made to the criterion.

(3) Fulfilling the criterion does not conflict with another important principle of our way of life. (Taylor, 1961, p. 85; Daniels, 1971, p. 12).

Showing that the criterion is relevant requires not only showing that it is a derivative of a "higher order" criterion, but also showing that it leads to beneficial consequences or at least does no harm to people (Daniels, 1978), or "... the more widely the [criterion] is adopted in a society, and the more completely it is fulfilled by those who adopt it, the more ideal the society will be" (Taylor, 1961, p. 88).

Showing that there are no reasons why an exception should be made, and that the criterion does not conflict with another important principle are difficult but necessary tasks.
Taylor (1961) argues that only by completing the above three tasks do we know the criterion is valid. He wrote:

'If someone should ask on what grounds such a claim to knowledge can be made, my answer would be that no other way of reasoning could yield better reasons for accepting a [criterion] as valid. I am merely trying to explicate the pattern of reasoning which would yield the best results for justifying a value judgement ...' (Taylor, 1961, p. 85).

Before an example is given of how validation might be carried out the following caveat is in order:

Carrying out all these aspects of validation in the justification of curricula is extremely difficult, chiefly because it is so difficult to know what the consequences of its use are likely to be and because the fulfillment of some criteria seems to lead to conflict with other criteria. (Daniels, 1971, p. 12).

6.16 Examples of Validation

To illustrate the validation of criteria, the first positive criterion (PC₁, Figure 6-4) and the first negative criterion (NC₁, Figure 6-5) will be used. The validation is presented to illustrate the logic of the procedure and does not necessarily reflect the value systems of Solomon Islanders.

6.161 A Positive Criterion

The positive criterion PC₁ was:

"Curriculum options which encourage students to keep traditional ways should be taught in the HNSS."

If this criterion is reworded in the form of an argument called a 'practical syllogism,' then the syllogism will be something like:

major premise: We ought to encourage students to keep the traditional ways.

minor premise: Teaching "Traditional Studies" encourages the
students to keep the traditional ways.

conclusion: We ought to teach Traditional Studies.

The major premise is the criterion used to come to the conclusion. It is that criterion which should be validated. It should form the conclusion to another syllogism having a higher order criterion as its major premise. In this example, the higher order criterion might be: "We ought to preserve our cultural integrity". Thus, the higher order syllogism would be:

major premise: We ought to preserve our cultural integrity.
minor premise: Encouraging the students to keep the traditional ways will help preserve our cultural integrity.
conclusion: We ought to encourage students to keep the traditional ways.

Putting the two arguments together, the complete argument becomes:

: We ought to preserve our cultural integrity.
: Encouraging the students to keep the traditional ways will help preserve our cultural integrity.
: We ought to encourage the students to keep the traditional ways.
: Teaching "Traditional Studies" encourages the students to keep the traditional ways.
: We ought to teach "Traditional Studies".

Thus, it has been shown that the criterion PC₁ can be derived from a higher order criterion. The other tasks for the validation of criterion PC₁ might be completed in the following way:

1) Possible beneficial effects of students keeping the traditional ways:

a) Promote harmonious relations with their relatives and friends "back home".
b) Give them feelings of pride in their own culture.
c) Resist the inroads of "Western" culture.

etc.

2) Possible conditions where an exception should be made to keeping the traditional ways:

a) Some traditional ways are not compatible with the running of business, government and industry.
b) Some traditional ways may be offensive to visitors from other cultures.
c) Some traditional ways promote poor health practices.

etc.

3) Possible conflicts with other important principles:

a) Some traditional ways may conflict with present laws.
b) Some traditional ways may conflict with Christian principles.

etc.

The procedure shown above is not simple, and probably should be done with a committee of well-informed, indigenous people. In addition, the procedure was demonstrated for only one of the criteria, whereas in reality it should be done with all the criteria—both positive and
negative—taking into account their relative importance. However, once it has been done, the administrator would be able to say something like: "Teaching Traditional Studies so as to encourage the students to keep some of the traditional ways is an acceptable criterion for teaching the course, as long as the course does not encourage the students to keep traditional ways which are against the law of the land, do not conflict with Christian principles, do not encourage poor health practices ...", and so on.

6.162 A Negative Criterion

Determining the acceptability of a negative criterion uses the same method as for a positive criterion. The negative criterion chosen for this example is NC₁: "Curriculum options which teach the students things they won't use in town should NOT be taught in the HNSS." (Figure 6-5). Rewording this in the form of a practical syllogism it becomes:

major premise: We shouldn't teach the students things they won't use in town.

minor premise: "Traditional Studies" teaches the students things they won't use in town.

conclusion: We shouldn't teach 'Traditional Studies'.

A higher order criterion might be: "We shouldn't waste the HNSS students' time". Therefore, the complete argument becomes:

: We shouldn't waste the HNSS students' time.

: Teaching the students things they won't use in town wastes their time.

: We shouldn't teach the students things they won't use in town.
"Traditional Studies" teaches the students things they won't use in town.

We shouldn't teach Traditional Studies.

To complete the three tasks of validation, the harmful effects of fulfilling the characteristic of the criterion must be determined, along with possible exceptions and potential conflicts. If the criterion is found to be acceptable, that is, the exceptions and conflicts don't outweigh the harmful effects, then the administrator could alter the content of the curriculum so that the harmful effects are eliminated. In this example this may mean simply not teaching those traditional ways which the student won't use in town. A more creative response might involve providing facilities where, and opportunities when, the students could use traditional ways in town. Either response would render the criterion invalid, because the characteristic on which it was based would no longer be true.

6.17 Using the Results of Validation

Once the administrator has gone through the validation procedure for each reason, then he would have a list of valid positive criteria, valid negative criteria and a list of invalid criteria. His next step is to compare the list of valid positive criteria with the list of negative criteria and decide whether the course should be taught in the school. If he decides it should, then he has decided that the valid positive criteria as a whole are more important than the valid negative criteria as a whole. Therefore, in his opinion the course should be designed so as to: (1) maximize for each positive criterion the beneficial effects to the students; (2) sensitize the students to potential circumstances where exceptions should be made; and (3) minimize
the potential for conflicts with other important principles. For each negative criterion, the course should be designed so as to eliminate or minimize the harmful effects on the student.

If, on the other hand, the administrator decides the course should NOT be taught in the school, because he decides the harmful effects of the course are likely to be more severe than the benefits, then he should still attempt to design the course in the same way as if he had decided that the course should be taught in the school. If, after making a reasonable effort to design a course which minimizes the potential detriments, he still finds that the detriments of the course outweigh the benefits of the course, then he must decide that the course should not be taught.

But performing the above tasks can be done independently without circulating the RSQ to the community. Therefore the question which must still be answered is: "Why bother having a community survey at all?" The results of circulating the RSQ to a community sample will indicate the criteria the community was using when it recommended that the course be accepted or rejected; and, through the analysis strategies outlined in this section, whether or not the community's decision was based on sound criteria. With that information, the administrator would be in a position to re-educate the community, if it had formed its judgments on unsound criteria, or to make appropriate adjustments to the curriculum if the community made judgments on sound criteria. If, for example, there were sound criteria for implementing the program, and any sound criteria for not implementing the program could be nullified, yet the community rejected the program on the basis of unsound criteria, then the administrator might decide to explain to the community why the program should be implemented, and how the program could be implemented so
as to minimize or eliminate possible harmful effects. The assumptions being made are that curriculum should not be eliminated from the school system on the basis of unsound criteria, and that the administrator, using the procedures outlined, and in consultation with knowledgeable others, is better able, than he otherwise would be, to decide whether or not the curriculum should be implemented.

On the other hand, if the community decided that the program should be implemented, but made its decision on the basis of unsound criteria, and the administrator also thinks the program should be implemented, then the administrator would be well equipped to point out to the people in the community that there are more powerful reasons for implementing the program. In addition, the administrator could explain why some reasons were inadequate, and so on.

The analysis strategy outlined in this section would be a reasonable step toward preparing for some of the conflicts which could occur. The point is that the administrator must be in a position from which he can defend the decision to implement or not implement the program. By being aware of potential areas of conflict he would be better able to do that.

6.18 Another Example—Mechanics For Girls

So far, nothing has been said about the place of the agree-disagree rating in the analysis strategy. In the previous example, "Traditional Studies", the whole sample agreed that the course should be taught in the HNSS. However, for the curriculum option "Mechanics for Girls (MG)", 40% of the community sample indicated that they thought "Mechanics For Girls" should NOT be taught in the HNSS. In a case such
### TABLE 6-2

Summary Community Data for the Curriculum Option

"Mechanics for Girls"

<table>
<thead>
<tr>
<th>Rating</th>
<th>Group Who Thought Mechanics for Girls SHOULD be taught</th>
<th>Group Who Thought Mechanics for Girls SHOULD NOT be taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason</td>
<td>Mean</td>
<td>Rank</td>
</tr>
<tr>
<td>High Positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.21</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>1.39</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1.39</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1.39</td>
<td>4</td>
</tr>
<tr>
<td>Low Positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.88</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>.67</td>
<td>8</td>
</tr>
<tr>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.24</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Negative</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.45</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>-.49</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>-.52</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>-.70</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>-.85</td>
<td>17</td>
</tr>
<tr>
<td>High Negative</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
as this, the administrator should examine the data from the "agree" group separately from the "disagree" group.

Table 6-2 displays the summary data for the two groups (the group which thought MG should be taught, and the group which thought MG should NOT be taught). From the information in Table 6-2, it seems that the "disagree" group are suggesting that the course, "Mechanics for Girls" should NOT be taught because of reasons 6, 2 and 14. They are:

Reason 14: "Fixing a machine is not a customary role for women and girls in the Solomons."

Reason 2: "A mechanic's job would take the girls out of the home."

Reason 6: "Girls are not interested in mechanics."

If the administrator in the Solomon Islands, after validating all the reasons on the MG RSQ, concludes that Mechanics For Girls should be taught, then he must be prepared to convince a fairly large segment of the community that the customary roles of females are not valid reasons for not teaching the course, or that the benefits of teaching the course to girls outweigh possible conflicts with traditional roles.

Conversely, if the administrator concludes that the course should NOT be taught, then he must be able to convince sixty percent of the community that the benefits derived from the course do not outweigh the negative effects of the course.

6.20 Analysis Strategies II—Statistical Procedures

6.21 Introduction

This section will present analysis strategies which can be used to examine differences among possible subgroups in the samples. It is often assumed that the responses people make to a particular...
rating question are normally distributed around the mean, and that the mean profile of scores on a set of questions is the best indicator of the sample's response pattern. However, for an instrument such as the RSQ it is important to know whether there are subgroups in the population which are homogeneous with respect to their responses, but different from other subgroups. For example, perhaps males respond to the RSQ's differently than females. Or perhaps people in high socioeconomic strata respond differently than people in low socioeconomic strata. Examining group differences is a frequent area of investigation in educational research which also has implications for the practitioner—particularly if he is applying the RSQ method. If the practitioner knows that females are responding differently from males to a RSQ, then he can be more parsimonious in the techniques he might use to eliminate conflicts which result from their use of different or invalid criteria.

Analysing the score profiles of persons responding to an instrument has generally used two methods. If the subgroups of the sample are known in advance of the analysis, then the problem concerns discriminant analysis. If the groupings of people are not stated in advance of the analysis, then the problem concerns cluster analysis. Discriminant analysis will provide information about the variables which distinguish among the a priori groups. Cluster analysis will group people on the basis of similar score profiles (Nunnally, 1967, p. 373).

In the analysis strategy to be illustrated in this section, both discriminant analysis and cluster analysis will be used. Cluster analysis will be used first in order to group the persons in the sample, so that each "cluster" contains people with similar score profiles. Discriminant analysis will then be used, by assigning people to the
groups determined by cluster analysis. The groups of people formed by cluster analysis can be examined to determine if they are distinguishable from other groups on the basis of sex and original group membership. The discriminant analysis will provide information about those reasons on the RSQ's which explain the variability among the groups.

For the purposes of the analyses to be presented, the data obtained from the community sample will be combined with the data from the college sample.

6.22 Cluster Analysis

The object of subdividing the population is to determine whether there are people in the sample who form mutually exclusive groups, on the basis of their responses to the RSQ's. The problem is one of cluster analysis.

The four most widely used cluster analysis methods are:

(1) single-linkage;
(2) complete linkage;
(3) average linkage;
(4) minimum variance.

Good summary discussions of the different methods can be found in Blashfield (1976). More detailed treatments can be found in Anderberg (1973) and Everitt (1974).

Blashfield (1976) compared these four methods of cluster analysis by creating a heterogeneous sample from a number of different populations. He found that the minimum variance method "... clearly obtained the most accurate solutions of any of the four methods" (Ibid, p. 385). The minimum variance model is based on the euclidian distance ($D$) between corresponding pairs of variables in the profiles being compared,
and as Nunnally (1967) pointed out: "D is intuitively appealing because it considers profile level, dispersion and shape. Also, it does lend itself to powerful methods of analysis.... The author [Nunnally] recommends ... that problems of profile analysis be discussed in terms of the D measure (p. 378)." Therefore, the minimum variance method was used as the method for forming people clusters.

The minimum variance method was first proposed by Ward (1963). His desire was to design a method which formed each possible number of groups, n, n-1, n-2, ..., 1, in a manner that minimized the loss associated with each grouping.

Briefly, the algorithm for analysis is to compare the vector of scores for each person with the vector of scores for every other person by summing, over all the variables, the squared differences between pairs of scores on corresponding variables. A cluster of persons is then formed by combining that pair of persons which is characterized by the smallest sum of squared differences. A "common" vector, weighted by the number of persons in the cluster, then replaces the two original individuals' vectors. The sum of squared differences between this common vector and each of the other remaining persons' vectors is then computed. These steps are then repeated n-2 times. At the beginning of the analysis each person forms a "cluster" by himself and at the end of the analysis all persons are in one "cluster". At each step, indices of error are computed which reflect the relative amount of "stress" introduced by combining a particular pair of "clusters". These indices enable judgements regarding the appropriate number of clusters, or the step at which the analysis optimally should be terminated (Rodgers, Slade and Conry, 1974, p. 320; Patterson and Whitaker, 1973).
The computer program, UBC C-GROUP, available at the University of B.C. Computing Centre, was used to generate clusters of people from the community and college samples, who had similar score profiles. Selecting the number of clusters to be retained for further analysis was a judgemental procedure based on the error index, and the number of persons in each cluster. Table 6-3 displays the number of persons in each cluster formed from the analysis, for each topic.

**TABLE 6-3**

Number of Persons in Each Group Formed by Cluster Analysis

For Each Curriculum Option

<table>
<thead>
<tr>
<th>Curriculum Option</th>
<th>Number of Groups Formed From Cluster Analysis</th>
<th>Number of Persons in Each Cluster Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Group 1</td>
</tr>
<tr>
<td>Mechanics for Boys</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Mechanics for Girls</td>
<td>3</td>
<td>49</td>
</tr>
<tr>
<td>Homecrafts for Boys</td>
<td>3</td>
<td>26</td>
</tr>
<tr>
<td>Homecrafts for Girls</td>
<td>3</td>
<td>85</td>
</tr>
<tr>
<td>Plant Agriculture</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Traditional Studies</td>
<td>3</td>
<td>31</td>
</tr>
<tr>
<td>Religious Education</td>
<td>4</td>
<td>54</td>
</tr>
</tbody>
</table>
The cluster analysis showed that the total sample consisted of clusters of people which could be distinguished, one from the other, on the basis of their response pattern to the RSQ's. But, could the people in each cluster also be identified by some other variable(s)? The original sample was composed of community respondents and college respondents. Therefore in this study one possible variable on which the clusters could be distinguished might be the original group to which they belonged. Another variable might be the sex of the respondent.

To determine whether the composition of the clusters did indicate that people from the same original group or the same sex were clustering together, contingency tables were constructed. The first set of contingency tables was original group membership by cluster analysis group membership, and the second set of tables was sex by cluster analysis group membership.

The null hypothesis for each of the original group membership by cluster group membership tables was:

\[ H_0: \text{There is no relationship, for each RSQ, between the original group membership of the respondents and the cluster group membership.} \]

The null hypothesis for each of the sex by cluster group tables was:

\[ H_0: \text{There is no relationship, for each RSQ, between sex and the cluster group membership.} \]

These hypotheses can be tested by calculating \( \chi^2 \) for each contingency table. The results of these calculations are displayed in Table 6-4.

The results of the Chi square analyses show that for each curriculum option formed, there is no relationship between sex of the respond-
ent and the cluster group membership at the significance level of \( \alpha = .05 \). Therefore \( H_0 \) was not rejected. The results in Table 6-4 also show that there is a significant (at \( \alpha \leq .05 \)) relationship between the original group membership of the respondent (college or community) and cluster group membership for four of the curriculum options: Homecrafts for Boys, Homecrafts for Girls, Traditional Studies and Religious Education. Therefore \( H_0 \) was rejected for those topics. Given these sorts of results, the contingency tables (for those curriculum options with significant Chi square values) should be examined in more detail, to determine the relationship between the cluster groups and the original groups.

### TABLE 6-4

Chi Square Values for Original Group and Sex by Cluster Group Membership For Each Curriculum Option

<table>
<thead>
<tr>
<th>Curriculum Option</th>
<th>Original Group by Cluster Group</th>
<th>Sex by Cluster Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \chi^2 ) df sig.</td>
<td>( \chi^2 ) df sig.</td>
</tr>
<tr>
<td>Mechanics for Boys</td>
<td>2.81  3  0.42</td>
<td>2.75  3  0.43</td>
</tr>
<tr>
<td>Mechanics for Girls</td>
<td>1.62  2  0.44</td>
<td>1.44  2  0.49</td>
</tr>
<tr>
<td>Homecrafts for Boys</td>
<td>11.08  2  0.00*</td>
<td>0.32  2  0.85</td>
</tr>
<tr>
<td>Homecrafts for Girls</td>
<td>6.47  2  0.04*</td>
<td>5.36  2  0.07</td>
</tr>
<tr>
<td>Plant Agriculture</td>
<td>1.73  2  0.42</td>
<td>5.21  2  0.07</td>
</tr>
<tr>
<td>Traditional Studies</td>
<td>15.86  2  0.00*</td>
<td>3.85  2  0.15</td>
</tr>
<tr>
<td>Religious Education</td>
<td>35.62  3  0.00*</td>
<td>3.39  2  0.33</td>
</tr>
</tbody>
</table>

* Reject \( H_0 \) at \( \alpha \leq .05 \)
The reader is reminded that this section was included to demonstrate analysis strategies and not to interpret the "results", or make substantive claims about the results. Given that limitation, the following brief description of one of the contingency tables (Table 6-5), for the curriculum option "Traditional Studies", will be provided.

**TABLE 6-5**

Contingency Table For "Traditional Studies"

Original Group Membership by Cluster Analysis Group Membership

<table>
<thead>
<tr>
<th>Group From Cluster Analysis</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Group</td>
<td></td>
<td></td>
<td></td>
<td>52</td>
</tr>
<tr>
<td>(expected value)</td>
<td>(12.1)</td>
<td>(28.2)</td>
<td>(11.7)</td>
<td></td>
</tr>
<tr>
<td>College Group</td>
<td></td>
<td></td>
<td></td>
<td>81</td>
</tr>
<tr>
<td>(expected value)</td>
<td>(18.9)</td>
<td>(43.8)</td>
<td>(18.3)</td>
<td></td>
</tr>
</tbody>
</table>

The contingency table (Table 6-5) yields a significant \( \alpha \leq 0.05 \) Chi square value of 15.86 with 2 df. If the observed frequency is compared to the expected frequency, in each cell of the table, then Group 3 from the cluster analysis contained a disproportionate number of college respondents, and Group 1 from the cluster analysis contained a disproportionate number of community respondents. Group 2 contained approximately the correct proportions of college and community respondents. But Group 1 and Group 3 combined total less than half of the total number of respondents. Therefore, what appeared to be occurring for this curriculum option (and similar results were observed in the other contingency tables which yielded significant Chi square values)
was that most of the respondents, both college and community, were responding in much the same way, but that a small group of college respondents (Group 3) and a small group of community respondents (Group 1) were responding differently from the majority (Group 2). Comparing the RSQ score profiles for each group from the cluster analysis would show how they were responding differently.

The RSQ data for "Traditional Studies" are displayed in Table 6-6. The reasons have been subdivided according to the mean rating received for each cluster group, and according to their quintile placement (see section 6.12).

All three groups have agree-disagree ratings between "Somewhat Agree" and "Very Much Agree" (the maximum). In fact, only two persons disagreed with the statement: "We should teach Traditional Studies to all the students in the HNSS". Thus, there were no major conflicts among the groups on their overall judgement to recommend the curriculum option "Traditional Studies". However, the three groups did differ with respect to the reasons they rated high positive, and the reasons they rated high negative. If we examine the first ranked reason for each group, then Group 1 (which has a disproportionate number of community respondents) rated reason no. 1 highest; that is: "Taking a course in Traditional Studies would encourage the students to keep some of the traditional ways." Group 2 (the largest group, and with proportional representation from the college and community respondents) rated reason no. 8 highest; that is: "If the student has to leave Honiara, the Traditional Studies course would help prepare him for village life". The third group, Group 3 (with a disproportionate number of college respondents) rated reason no. 3 highest; that is: "A Traditional Studies course would give the student some traditional rules and ways to behave". Therefore, in terms of the most important reasons why the
TABLE 6-6

Traditional Studies Reasons Categorized by Quintile and Cluster Group Membership

<table>
<thead>
<tr>
<th>Rating</th>
<th>Group 1 (N = 31)</th>
<th>Group 2 (N = 72)</th>
<th>Group 3 (N = 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reason Number</td>
<td>Mean</td>
<td>Rank</td>
</tr>
<tr>
<td>High Positive</td>
<td>1</td>
<td>2.39</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>2.00</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>1.77</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>1.58</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>1.39</td>
<td>7</td>
</tr>
<tr>
<td>Low Positive</td>
<td>12</td>
<td>1.19</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>1.16</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1.13</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>1.10</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>0.90</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>0.81</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Negative</td>
<td>17</td>
<td>-0.52</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>-0.71</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>-0.74</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>-0.84</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-0.87</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>-0.93</td>
<td>17</td>
</tr>
<tr>
<td>High Negative</td>
<td>10</td>
<td>-1.97</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>-3.03</td>
<td>19</td>
</tr>
<tr>
<td>Agree-Disagree</td>
<td></td>
<td>+2.13</td>
<td></td>
</tr>
</tbody>
</table>
course should be taught, the three groups have quite different orientations. However, in terms of all the reasons which were given high positive reasons by the three groups, the groups are quite similar. Since all three groups recommended that the Traditional Studies course should be taught, then those reasons given high negative ratings point out areas of concern rather than reasons which negate having the course; in other words, the perceived beneficial effects outweigh the perceived harmful effects of the course. Group 1 gave high negative ratings to reason no. 10: "There are too many different customs and traditions for the student to learn them all"; and to reason no. 18: "Most students in town will not use traditional or custom ways". Group 2 gave no reasons high negative ratings, and gave the two reasons rated high negative by Group 1 neutral ratings (with modes equal to zero). Group 3 had concerns quite different from Group 1. Group 3 gave high negative ratings to reason no. 4: "The things the students learn in Traditional Studies may not agree with what they are told in Religious Education"; to reason no. 17: "Learning different traditions might confuse the students in the HNSS"; and to reason no. 2: "The course would not teach the students anything which is modern". Two of the three reasons given high negative ratings by Group 3 were given neutral ratings by Group 2 (with modes equal to zero); they were reasons no. 4 and reason no. 2.

Therefore, by using the cluster analysis technique, and then inspecting the comparative ratings given the reasons by each cluster of persons (in conjunction with the agree-disagree rating), a more specific description of the population sample could be offered than that which would result from examining the mean rating of each reason across the total sample. Cluster analysis provides a compromise between examining the profile of each individual, which would be the most
accurate but also the most cumbersome method of describing the sample, and treating the sample as a homogeneous group. If the researcher was interested in determining those reasons which contributed the most to the differences among the groups, then he could use discriminant analysis. That type of analysis will be described in the next section.

6.23 Discriminant Analysis

Performing discriminant analysis produces a multiple discriminant function which is the linear combination of the variables which will maximize the group differences. Therefore the discriminant function(s) gives information of the adequacy of the a priori group classification, and, from the coefficients for the variables in the linear combination, gives information on how much each variable contributes to the differentiation among the groups. A general account of the method can be found in Nunnally (1967, pp. 388-400). A more detailed statistical treatment can be found in Tatsuoka (1970).

Table 6-7 displays the summary statistics for discriminant analysis performed on the data sets for each RSQ with the groups determined from the cluster analysis. The discriminant analysis program in the Statistical Package for the Social Sciences (Nie et al, 1975, pp. 434-462) was used.

In Table 6-7, the column labelled "Relative Percentage" is the relative magnitude of the eigenvalues, and indicates the percentage of the total discriminating power of the battery as a whole that is apportioned to each discriminant function. If there are "k" a priori groups then there are k - 1 discriminant functions, and:

Relative Percentage for i'th function = \[ \frac{\lambda_i}{\lambda_1 + \lambda_2 + \ldots + \lambda_{k-1}} \times 100\% \]
<table>
<thead>
<tr>
<th>Curriculum Option</th>
<th>Number of Groups</th>
<th>Eigenvalues ($\lambda$)</th>
<th>Relative Percentage</th>
<th>Chi-Square</th>
<th>df</th>
<th>Significance</th>
<th>Discriminant Power (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanics for Boys</td>
<td>4</td>
<td>2.75, 1.59, 1.12</td>
<td>50.39, 29.12, 20.49</td>
<td>171.28, 123.29, 97.27</td>
<td>15, 13, 11</td>
<td>.000, .000, .000</td>
<td>95%</td>
</tr>
<tr>
<td>(N = 139)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanics for Girls</td>
<td>3</td>
<td>2.17, 1.28</td>
<td>62.77, 37.23</td>
<td>145.80, 104.52</td>
<td>19, 17</td>
<td>.000, .000</td>
<td>86%</td>
</tr>
<tr>
<td>(N = 138)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homecrafts for Boys</td>
<td>3</td>
<td>2.10, 1.31</td>
<td>61.59, 38.41</td>
<td>141.88, 104.96</td>
<td>17, 15</td>
<td>.000, .000</td>
<td>86%</td>
</tr>
<tr>
<td>(N = 136)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homecrafts for Girls</td>
<td>3</td>
<td>3.08, 1.29</td>
<td>70.54, 29.46</td>
<td>173.56, 102.07</td>
<td>17, 15</td>
<td>.000, .000</td>
<td>89%</td>
</tr>
<tr>
<td>(N = 134)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant Agriculture</td>
<td>3</td>
<td>2.94, 1.58, 1.44</td>
<td>65.02, 34.98, 32.80</td>
<td>174.81, 120.91, 107.97</td>
<td>19, 17, 18</td>
<td>.000, .000, .000</td>
<td>90%</td>
</tr>
<tr>
<td>(N = 139)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional Studies</td>
<td>3</td>
<td>2.95, 1.44</td>
<td>67.20, 32.80</td>
<td>166.26, 107.97</td>
<td>20, 18</td>
<td>.000, .000</td>
<td>89%</td>
</tr>
<tr>
<td>(N = 133)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious Education</td>
<td>4</td>
<td>2.49, 1.93, 1.20</td>
<td>44.26, 34.40, 21.33</td>
<td>151.74, 130.72, 95.71</td>
<td>21, 19, 17</td>
<td>.000, .000, .000</td>
<td>95%</td>
</tr>
<tr>
<td>(N = 134)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The column labelled "Chi square" in Table 6-7 is the quantity of the statistic \( V_j \), where \( V_j \) is defined by:

\[
V_j = 2n (1 + \lambda_j)(N - 1 - k + p) - 2
\]

where \( N \) = total sample size;

\( K \) = number of \textit{a priori} groups

\( p \) = number of variables.

\( V_j \) is approximately a Chi square with \( p + k - 2J \) degrees of freedom. That is:

\[
V_1 = \chi^2 \text{ with } df = p + k - 2
\]

\[
V_2 = \chi^2 \text{ with } df = p + k - 4
\]

etc. (Tatsuoka, 1970, p. 44).

The significance of \( \chi^2 \) indicates whether the discriminant function represents a dimension along which significant differences among the groups exist.

The column labelled "Discriminant Power", in Table 6-7, is an estimate of the total variability of all the discriminant functions which is attributable to group differences. Its value can range from 0.00 to 1.00 and was calculated from:

Total Discriminant Power = 1 - \[
\frac{N}{(N-k)(1+\lambda_1)(1+\lambda_2)...(1+\lambda_{n-1}) + 1}
\]

As can be seen from Table 6-7, all the discriminant functions generated, for each RSQ, significantly differentiated among the groups generated from the cluster analysis. The group differences for each RSQ explained a high proportion (86% to 95%) of the total variability in the discriminant space.

Another indicator of the adequacy of the discriminant functions used to distinguish among the different groups is to use the functions
to determine the posterior probability that each person "belonged" to a certain group, and to assign him to that group to which he had the highest probability of belonging. Performing this posterior assignment provided a check on the initial classification generated from the cluster analysis. The results of this analysis are displayed in Table 6-8. Those results indicated that the discriminant functions correctly differentiated the groups generated by the cluster analysis for each RSQ. Therefore, the cluster analysis classifications were, in some way, meaningful.

TABLE 6-8
Posterior Classification of Persons Into Cluster Groups, Using Discriminant Analysis

<table>
<thead>
<tr>
<th>Curriculum Option</th>
<th>Percent of Sample Correctly Classified by the Discriminant Functions in the Group Generated By Cluster Analysis</th>
<th>Total Percent Correct Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group 1</td>
<td>Group 2</td>
</tr>
<tr>
<td>Mechanics for Boys</td>
<td>100%</td>
<td>96.5%</td>
</tr>
<tr>
<td>Mechanics for Girls</td>
<td>85.7%</td>
<td>90.4%</td>
</tr>
<tr>
<td>Homecrafts for Boys</td>
<td>100%</td>
<td>93.1%</td>
</tr>
<tr>
<td>Homecrafts for Girls</td>
<td>94.1%</td>
<td>88.9%</td>
</tr>
<tr>
<td>Plant Agriculture</td>
<td>95.3%</td>
<td>93.5%</td>
</tr>
<tr>
<td>Traditional Studies</td>
<td>93.5%</td>
<td>91.7%</td>
</tr>
<tr>
<td>Religious Education</td>
<td>96.3%</td>
<td>100%</td>
</tr>
</tbody>
</table>

* a group not formed in the cluster analysis
The discriminant functions can be thought of as the axes of a geometric space and can be used to study the spatial relationships among the groups. Each a priori group can be represented, in the reduced space defined by the discriminant functions, by a group centroid. The centroids are the mean discriminant scores for each group on the respective functions. Figure 6-6 shows the centroids for the three cluster groups formed from the Traditional Studies RSQ data. As can

FIGURE 6-6

Centroids for Traditional Studies Cluster Analysis Groups

Function 2

-1.0 - .5  1.0  1.5

Group 3

Group 2

Function 1

-1.0 - .5  1.0  1.5

Group 1
be seen from Figure 6-6 the first discriminant function seems to
distinguish Group 2 from Groups 1 and 3. The second discriminant function
distinguishes Group 3 from Groups 1 and 2.

To determine those reasons which were most strongly contributing to
the separation of the groups required examining the discriminant function
coefficients. Those coefficients are displayed in Table 6-9.

<table>
<thead>
<tr>
<th>Reason Number</th>
<th>Function 1</th>
<th>Function 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.023</td>
<td>0.094</td>
</tr>
<tr>
<td>2</td>
<td>-0.111</td>
<td>-0.348**</td>
</tr>
<tr>
<td>3</td>
<td>-0.009</td>
<td>0.159</td>
</tr>
<tr>
<td>4</td>
<td>-0.120</td>
<td>-0.290**</td>
</tr>
<tr>
<td>5</td>
<td>-0.003</td>
<td>0.149</td>
</tr>
<tr>
<td>6</td>
<td>0.013</td>
<td>0.016</td>
</tr>
<tr>
<td>7</td>
<td>-0.087</td>
<td>-0.285**</td>
</tr>
<tr>
<td>8</td>
<td>-0.125</td>
<td>-0.185</td>
</tr>
<tr>
<td>9</td>
<td>-0.062</td>
<td>-0.208</td>
</tr>
<tr>
<td>10</td>
<td>-0.355*</td>
<td>0.157</td>
</tr>
<tr>
<td>11</td>
<td>-0.065</td>
<td>-0.186</td>
</tr>
<tr>
<td>12</td>
<td>-0.084</td>
<td>0.215</td>
</tr>
<tr>
<td>13</td>
<td>-0.169</td>
<td>0.014</td>
</tr>
<tr>
<td>14</td>
<td>0.000</td>
<td>0.006</td>
</tr>
<tr>
<td>15</td>
<td>-0.101</td>
<td>-0.070</td>
</tr>
<tr>
<td>16</td>
<td>0.013</td>
<td>-0.009</td>
</tr>
<tr>
<td>17</td>
<td>-0.003</td>
<td>-0.454**</td>
</tr>
<tr>
<td>18</td>
<td>-0.689*</td>
<td>0.187</td>
</tr>
<tr>
<td>19</td>
<td>-0.087</td>
<td>-0.179</td>
</tr>
</tbody>
</table>

* coefficients which discriminate in function 1
** coefficients which discriminate in function 2

Tatsuoka (1970, p. 3, 4) suggests that those coefficient weights
whose absolute values are no less than about one-half of the largest
weight be used for a concise description of the group differences on each function. The coefficients which fulfill that suggested requirement have been asterisked in Table 6-9. Figure 6-10 displays a pictograph of the mean ratings for those reasons which have the largest discriminant function coefficients for each group.

**FIGURE 6-7**

Means of Reasons Which Had Discriminant Function Coefficients With the Highest Absolute Values, For Traditional Studies

(1's = Group 1, 2's = Group 2, 3's = Group 3)

<table>
<thead>
<tr>
<th>Reason Number</th>
<th>Mean Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason 2</td>
<td>11111111</td>
</tr>
<tr>
<td></td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>3333333333333333</td>
</tr>
<tr>
<td>Reason 4</td>
<td>1111111</td>
</tr>
<tr>
<td></td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>3333333333333333</td>
</tr>
<tr>
<td>Reason 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1111111111111111</td>
</tr>
<tr>
<td></td>
<td>2222222222222</td>
</tr>
<tr>
<td></td>
<td>3333333333333333</td>
</tr>
<tr>
<td>Reason 10</td>
<td>111111111111111111</td>
</tr>
<tr>
<td></td>
<td>222</td>
</tr>
<tr>
<td></td>
<td>333</td>
</tr>
<tr>
<td>Reason 17</td>
<td>11111</td>
</tr>
<tr>
<td></td>
<td>2222</td>
</tr>
<tr>
<td></td>
<td>3333333333333333</td>
</tr>
<tr>
<td>Reason 18</td>
<td>11111111111111111111</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>333333</td>
</tr>
</tbody>
</table>
The results displayed in Table 6-9 and Figure 6-7 suggest that for the option "Traditional Studies", the three groups of respondents identified by cluster analysis are being distinguished from each other mainly on the basis of those reasons to which they gave negative ratings.

6.30 **Summary**

This chapter presented and discussed analysis strategies for use in interpreting the results obtained from the administration of the RSQ's. The first analysis strategy was a conceptual analysis of the information which could be used by an educational practitioner whose main concerns are whether or not the curriculum option should be implemented into the schooling system, and the form and content that the option should take. The second analysis strategy was a more statistical treatment of the results which might be used by the practitioner who has access to sophisticated computing devices, or by the researcher who might be interested in identifying subgroups of the population who have different RSQ score profiles. Both analyses of the data have been presented as examples of analytical approaches which might be taken. There is no intention to imply that they are the only approaches.

The conceptual approach should be used in every case where the RSQ is used. For a complete picture of the rationality of the judgement to include or not include the curriculum option in the schooling system, the administrator should not only know what reasons the sample used to make the judgement, but also whether those reasons are sound.

By using the RSQ in a community survey, the administrator would know what reasons the community is using to recommend inclusion or omission of the course. Through a careful analysis of the community RSQ data he is in a position to correct misconceptions which the community might have, eliminate their concerns by adjusting the course
content (assuming they are valid concerns) and more carefully tailor the course to meet sound criteria.

If there is a considerable number of people who disagree with including the curriculum option, as well as a considerable number who agree, then the data set should be subdivided into an "agree" group and a "disagree" group before inspection of the ratings for the reasons is undertaken. It may occur that both groups give each reason the same mean ratings, and hence the reasons will have the same rank order for both groups. For example the rank order correlation coefficient between the "agree" group reasons and the "disagree" group reasons for "Mechanics for Girls" (see Table 6-2) was 0.96. However, in this case the "disagree" group gave greater weight to the negative reasons than to the positive reasons when they made their overall judgement, whereas the reverse was true for the "agree" group. Where warranted, subdivision of the sample on the basis of the agree-disagree rating provides a more accurate description of the sample than simply averaging the ratings.

The statistical analysis strategies would be a useful adjunct to the conceptual analysis, and should be attempted whenever the necessary computing facilities are available. If the sample can be subdivided according to RSQ score profiles, then, by examining the RSQ profiles of the different subgroups, and by determining whether the subgroups are composed of identifiable segments of the population sample, the administrator may be in a position to more clearly describe the population response. As well, he may be able to direct his attention to specific subgroups in order to eliminate misconceptions they might have.

For the researcher, the statistical analysis presented in this chapter may be only one approach which could be taken in order to discuss group differences. The general approach could be used in
exploratory field studies (can the population being studied be subdivided on the basis of their RSQ score profiles) or in more specific hypothesis testing field studies (do females 15 years of age and older have different score profiles than males 15 years of age and older). More will be said about potential uses of the RSQ in the next, and final, chapter of this dissertation.
Chapter 7

SUMMARY AND CONCLUSIONS

7.00 Restatement of the Problem and An Overview of the Study

The value-base of "need" has been ignored in existing, related procedures, which purport to determine "needs", called "needs assessments". Those procedures are empirical techniques, and, though they may identify goals which certain groups of people want, it does not logically follow that those goals are "needs". To determine if what is wanted is really needed, it is necessary to examine and weigh the reasons for and against that which is wanted, and then make a value judgement about whether or not it is needed. Therefore, the main problem of this thesis was to develop a method to identify the reasons people would give to support their contention that a particular goal is worthwhile or not worthwhile.

In the context of this study the pertinent goals were particular curriculum options relevant to the students in the Honiara New Secondary School (HNSS). The curriculum options and the HNSS were discussed in the early sections of Chapter Three. To determine those options which were relevant to the HNSS, the investigator gathered specific units of study and had them classified and labelled by indigenous people into curriculum options. That is described in section 3.23 of Chapter 3. Six of the curriculum options were then selected for further study. The method of selecting those options, and the reasons for the selection, are described in sections 3.30, 3.40 and 3.50 of Chapter 3. Determining the curriculum options and selecting some of them for further study was called Phase I of the Study.
Reasons for and against teaching each of the options were gathered from interviews with people who had some expert knowledge of the curriculum option, and from asking all the Solomon Islands Teachers' College (SITC) students to give reasons for and against each curriculum option. The reasons which were collected were arranged, for each option, in a format called the Reasons Selection Questionnaire (RSQ). The RSQ's were then administered to a community sample and to the SITC students. Developing and administering the RSQ's was described in Chapter 4, and was called Phase II of the study.

Chapter 5 evaluated the method and Chapter 6 presented analysis strategies for the data gathered from the RSQ's.

7.10 A Summary of the Findings

The development of a method that would elicit the reasons people use in making curriculum recommendations has been achieved in the investigation which resulted in this dissertation.

For the investigation the main problem was divided into three more specific problems. They were:

1) Can a reasonably complete list of curriculum options for a particular schooling situation be gathered?

2) Can a reasonably complete set of reasons for and against each curriculum option be gathered?

3) Can a simple, valid and reliable instrument be developed which would identify the reasons used by people to recommend or not recommend a particular curriculum option?

As a general finding, the answer to each of the above questions is "Yes". Each of the specific problems will be examined below:
Problem 1: Can a reasonably complete list of curriculum options for a particular schooling situation be gathered? (See Chapter 3.)

The approach used by the investigator to determine the curriculum options was unique in that, once the aims of the HNSS had been identified, specific units of study were gathered and then classified into broader curriculum options.

Deriving the curriculum options from the units of study had two major strengths: firstly, it minimized the possibility of omitting a particular curriculum option, and secondly it pre-identified specific sorts of things which could be taught within a particular curriculum option.

The first strength is particularly important if the person developing the overall curriculum is a non-indigenous expert. The potential for systematic bias is considerable if someone from one culture is attempting to derive curriculum options for people in another culture. Therefore, gathering specific units of study (within the aims of the schooling) suggested by the writings and comments of indigenous people, and then asking them to group the units of study into more general categories, minimized the possibility of curriculum distortion which might have resulted from cultural bias. In addition, it was a much less serious problem if some of the units of study were omitted, than if a curriculum option was omitted. Generally, there were a number of units of study under each curriculum option. Overlooking a few of the units of study still left a sufficient number of units which could be categorized together to define a curriculum option.

The second strength would alert the curriculum developer to particular topics which would be relevant to local conditions. Therefore, it would help to avoid the imposition of an "alien" set of units
within a particular curriculum option.

Therefore, a complete set of reasonable curriculum options for the Honiara New Secondary School was determined by gathering units of study from indigenous sources, and by having indigenous people categorize those units into curriculum options.

Problem 2: Can a reasonably complete set of reasons for and against each curriculum option be gathered? (See Section 4.10.)

Section 5.12 showed that the reasons gathered formed a very thorough set. In this study two sources were used to gather reasons: (1) interviews with persons who had expert knowledge about one of the curriculum options chosen for Phase II of the study; and (2) the SITC students.

The experts on the various options were interviewed so as to obtain true reasons, and reasons which they, as experts, believed to be true. The college students were asked for reasons that were assumptions which they believed to be true without proof. It was argued that the college students would have assumptions similar to those of the community because of the unique nature of the Honiara community (see Section 4.14). The reasonableness of that argument was substantiated in Section 5.12.

Problem 3: Can a simple, valid and reliable instrument be developed which would identify the reasons used by people to recommend or not recommend a particular curriculum option?

The Reasons Selection Questionnaires (RSQ's) were tested by having them completed by a sample of the Honiara population defined as those people who were over the age of 15 years, and working for wages in Honiara (see Section 4.31), and by all the SITC students. The RSQ for each curriculum option was found to have high content validity.
(see Section 5.10) and high construct validity (see Section 5.20). That is, the reasons presented for selection on the RSQ fulfilled certain requirements which were appropriate for the RSQ; and the instructions for, and format of, the RSQ fulfilled certain logical requirements for using reasons to come to value judgements.

The requirement that the method be simple was partially met in the samples used to test the RSQ. For the Honiara sample, it appeared that respondents with education to the level of about Standard 6 (Grade 6) or higher were able to complete the task. Those respondents with less than Standard 6 education were unable to complete the task (see Section 5.50).

A "test-retest" reliability study provided results which indicated that there was high stability in the rank order of reasons both for and against each curriculum option; and high stability for the overall recommendatory value judgement (see Section 5.40).

7.20 Conclusion

A contradiction in present empirical attempts to determine "needs" is the propensity to use scientific methods but to leave the value decisions, inherent in any determination of needs, scientifically out of control. Finding that students are deficient in meeting goals which have been rated as important does not, in itself, mean that the students need to meet that goal. Only after the careful consideration of sound reasons for and against a goal can a defensible judgement be made about whether that goal ought to be met.

It is admirable that educators are now attempting to involve the community in the setting of educational goals; however, blindly accepting community dictates as the principle on which the educational system
will be designed could destroy educators' credibility that they are persons who know what is to be taught, when and to whom. In addition, education is much too serious an enterprise to be based on unjustified ranking and rating of goals. To maximize the quality of goal selection, it is in the interests of both the public and the educators to have available all the information they will need to come to rational judgements. By the judicial selection of relevant reasons a group lays bare its reasoning for recommending that the goal be met, or not be met. The Reasons Selection Questionnaire developed in this dissertation provides respondents with the opportunity to perform that judicial selection of reasons.

It has been argued in this dissertation that the statement: "X needs Y" is not merely a matter of opinion with no objective way to settle disagreement with the statement. Yet in present methods of needs assessment, where unsubstantiated statements such as "X needs Y" are all that are asked for, we can only speculate on why disagreements with the opinion occur. By using the methodology embodied in the Reasons Selection Questionnaire, we have a better idea why disagreement is taking place and, through validation of the reasons, we can distinguish between supportable and unsupportable arguments for or against the statement "X needs Y".

The Reasons Selection Questionnaire was developed using defensible research techniques which were properly adapted to suit the living laboratory of the Solomon Islands. Using the RSQ would more clearly delineate issues in education which might otherwise not be apparent, and would eliminate the need for the statement (quoted in Chapter 1 of this dissertation) that disagreement is a "... curious aspect surrounding these data..." (Thompson and Swidchens, 1977).
Epilogue

The previous section, "Conclusions", marks the end of the dissertation. This epilogue is offered as a source of ideas for applying and/or extending the RSQ technique.

Potential Applications for the RSQ

In the broadest sense, the RSQ could be used in any situation where an official of some sort wished both to know whether or not people would support some change, addition or deletion to a current state of affairs, and the reasons for their decision.

The following list of prescriptive statements indicates some of the currently topical issues in which the RSQ could be used:

Some issues in Education:

- We should teach SEX EDUCATION courses.
- We should have FRENCH IMMERSION courses.
- We should have a CORE CURRICULUM.
- We should teach VALUES EDUCATION.
- We should use COMPUTER ASSISTED INSTRUCTION.
- We should use TEAM TEACHING.
- We should have PREFECTS.
- The students should wear SCHOOL UNIFORMS.
- We should bring back STRAPPING.
- We should INTEGRATE HANDICAPPED STUDENTS into the school.
- We should have a SMOKING AREA for students in the school.
- We should finance INDEPENDENT SCHOOLS.

Some issues not in Education:

- We should allow NIGHT FLIGHTS over the city.
- We should allow a NEIGHBOURHOOD PUB in our area.
We should have COMPULSORY TREATMENT for heroin users.
We should let QUEBEC SECEDE from Canada.
We should have a CURFEW in our community.
We should ban the use of CHILDREN IN COMMERCIALS.

To use the RSQ, the value object (the words in capitals in the above prescriptions) must be clearly defined so that the respondents know what is to be judged. As well, the geographical or social area where the prescription would possibly be applied must be described. For example, is the educational prescription pertinent to this school, the school district, all students, some grades, etc.

True, reasons and reasons that are assumptions, must be gathered from the population to be sampled, and from persons who have expert knowledge about the value object. It is extremely important that the reasons and beliefs are gathered by a person (or persons) who has nothing to lose or gain from whatever decision is finally made.

The reasons would then be arranged in the format of the RSQ and circulated to an adequate sample of the relevant population.

Chapter 6 presented various methods which could be used to analyse the results obtained from the sample; therefore, that information will not be repeated here. But, if the official who was going to use the results from the RSQ was committed to abiding by the decision of the population (i.e. if he would only implement the change, addition, etc., if most people agreed with the prescription), and if he analysed the obtained data at the simplest level (i.e. simply rank ordered the reasons "for" and the reasons "against" on the basis of mean scores), then, depending on the homogeneity of response in the sample, he would know the desirable characteristics and undesirable characteristics of
the value object as perceived by the sample. Therefore, if the official was going to implement the program, course, change or whatever, he would be in a position to maximize the perceived positive characteristics, and minimize the perceived negative characteristics.

However, as recommended in Section 6.10, the official who is the final arbiter of whether or not to implement or not implement that which was recommended in the prescription should attempt to validate each reason (with the help of a knowledgeable committee) and come to an independent decision about the worth of the value object. The validation, along with the results from the RSQ, will help him decide whether the population sample had come to a rational final decision based on sound reasons. If they hadn't, then the official would have the information necessary to re-educate the sample: that is, he would be better able to design strategies to clear-up misunderstandings, mollify people's concerns, prepare a defense for the official position and generally improve the overall social climate for either recommending or not recommending the value object.

The RSQ format might also be used in the classroom. For example, suppose a teacher had taught a unit on the circumstances which led to a particular historical decision to do "X". The teacher could produce an RSQ by listing reasons why decision "X" should have been made, and reasons why decision "X" should not have been made. He could then incorporate those reasons into the format of an RSQ, ask his students to perform the required reason rating task, and ask them to come to an overall judgement as to whether the historical decision "X" should have been made. The results from the RSQ could be used either for forming the basis of discussion of decision "X", or perhaps as a method of
measuring the students' grasp of the important reasons which necessitated decision "X", or which indicated that "X" was the wrong decision to make.

7.31 Suggestions for Further Research

The following suggestions provide potential areas for further research on the RSQ technique:

1) Explore the possibility of using a rating scale for each reason in place of the partially ipsative format.

2) Explore the card sorting procedure briefly described in Section 4.22 as a useful alternative to either the independent rating or partially ipsative procedures.

3) Attempt to adjust the format of the RSQ so that it could be presented orally for use in areas of low literacy.

4) Study the use of the RSQ to develop and explore value issues with students in school.

5) Study whether different value orientations taken by subgroups of the population could be related to other characteristics of those subgroups?

6) Apply the RSQ to measure the effectiveness of an intervention designed to change the reasoning of people on some important issue.

It would also be of value to follow the development and use of an RSQ from initial formulation to the final decision to implement or not implement the means to attain a particular goal.
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APPENDIX A

A MAP OF THE SOLOMON ISLANDS
APPENDIX B

A COLLECTION OF ARTICLES PUBLISHED IN THE SOLOMON ISLAND'S NEWS DRUM FOR PUBLICIZING THE NEW SECONDARY SCHOOLS
(from best available copy)
BACKGROUND TO NEW SECONDARY SCHOOLS:

Early in 1973 the Educational Policy Review Committee was formed. This was a group of people with special knowledge and interest in education. All the members except the secretary were Solomon Islanders. The committee toured the Solomons, listening to people's views on changes needed in our educational system. Their conclusions were written up in a report with the title "Education for What?". This report had a great deal of influence on the 'White Paper' produced in 1976, which, with some alterations, was approved by the Legislative Assembly. Many changes were recommended and these are just beginning to take place.

One of the most important changes is the creation of a new kind of Secondary School. The first four of these, at Tangarare, Aligegeo, Vonunu and Paua, are to open in 1976.

MOVE TOWARDS VILLAGE DAY SCHOOLS:

Up to now we have had both Junior Primary and Senior Primary schools. Senior primaries were mostly boarding schools. One of the recommendations of the SEPC report was that children should not be taken away from their homes at such an early age. So, from 1970, there is to be a move towards more village primary day schools. Eventually, perhaps by 1983, all children of primary school age will be in school following a six year primary course.

Many of the senior primary schools which close will, we hope, have new buildings added to them and eventually become New Secondary schools.

SECONDARY SCHOOLS:

The name 'New Secondary' itself has caused some confusion. These are planned to become local schools, mainly for children from the surrounding area. For that reason they were to be called 'Virea High Schools'. Then, to make it clear that they were Secondary, they were re-named 'New Secondary Schools'. The word Secondary simply means 'coming second' - after primary.

The Ministry of Education is also responsible for five older-established secondary schools - KGV, Selwyn, Tonaru, Goldie and Sulu. Because each of these takes in pupils from all over the nation, it was decided to re-name them 'National Secondary Schools'. There are also other secondaries (eg. Betikana) which chose to remain independent.

EXPANDING SECONDARY EDUCATION:

As the primary system grows there is a need for more children to be able to have some further education. But in most countries it has been found that only about 20% of children leaving primary school can benefit from going on to a purely academic secondary course. The SEPC Committee found that parents did not want a big expansion of this kind of secondary education. In any case, common sense suggests that before opening more schools we should think carefully what they are for. We can start by looking at the existing schools.
NATIONAL SECONDARY SCHOOLS:

National Secondaries grew up for a variety of reasons. Some of them run excellent practical courses but in general they have become academic and selective. Their most able pupils have had to go on to Colleges and Universities overseas. Most of their output has been people who look for jobs in government and business offices, banks, schools, hospitals and in technical work in industry and agriculture. It is important that Solomon Islanders should replace expatriates in these posts but the number of jobs is limited and will not grow very fast. Planners have calculated that the existing National Secondary Schools can produce enough people to fill this demand. Building another one at this time would not make sense. And if we are to serve the needs of the majority we cannot afford the money, either.

Curriculum in National Secondary Schools is being revised - but it seems obvious that it would not be sensible to start off a whole series of new schools as copies of the old ones.

OTHER COUNTRIES' EXPERIENCE:

We need not copy other countries - but we can learn from their mistakes. Too many 'developing' countries have produced thousands of 'educated' young people who have not gained skills useful in rural areas and have lost interest in village life. They have drifted to town but found no jobs there. Villages without their most able young people have become dull places - and that in turn has led others to leave. Meanwhile towns have developed overcrowded slums, unemployed people and crime. Often these countries cannot now feed their own populations.

The wrong type of education is not the only cause of this but there is no doubt that it has contributed greatly towards it. Planning of education and rural development have to go together. The new policy is an attempt to do this.

NEW SCHOOLS AND RURAL DEVELOPMENT:

The Solomons have the advantage of plenty of land, a reasonable climate and the resources of the sea. This means that with our mainly rural way of life we can easily feed ourselves. If we can also make our agriculture a little more efficient we can hope to pay for the developments we want. Most people also feel that our villages are good places to live in. Everything leads to the conclusion that most of our people should continue to live in rural areas. The difficulty will perhaps be that young people will expect more of village life than it offers at present. They will be influenced by what they read and by radio and films. Villages may have to change a little to make life more rewarding for them. They will need chances to use what they learn in school.

The parents' main demand to the EPCC Committee was for a school system suited to the life of the majority of Solomons. It should not alienate young people from their parents and villages, moving primary schools to the villages and locating most New Secondary Schools in rural areas will help. The other big influence will be what we teach (the curriculum) in our schools.
NEW SECONDARY CURRICULUM:

What should be learnt in New Secondary Schools? Early in 1975 the Ministry of Education set up a curriculum committee to think about this. The schools are to provide a two years' course. The committee realised that a few pupils might continue to other forms of higher education. Some would go to town. But the majority would go home to their villages. It was thought therefore that the curriculum should be designed mainly as a preparation for life in rural areas. Thinking should begin from there and not from any ideas of examinations or what other schools have done. If the revision of curriculum in National Secondaries moves towards what is done in New Secondaries and makes possible a common base - so much the better.

A series of questions may help. What changes must come in agriculture, fishing, business, transport, and industry if the Solomons are to be economically independent? Can we lead pupils to see the need to be a little more scientific and business-like? What new skills and crafts would be welcome in villages? What old crafts need to be preserved or revived? What new social activities and games might be welcomed? Can we introduce some of those things through the schools? What should village people know about their own area and their country so that they are intelligent voters who put the right people into local and national government? What do we want to preserve in village life and customs?

The answers to many of these questions will be different in each area of the Solomons. The committee therefore felt that it should give broad guidelines but leave Headmasters and School Boards free to develop their own version of the curriculum to suit local needs and interests. For instance, in an area where fishing is important this should form a large part of the curriculum. Some New Secondary Schools will be in or near towns and they will need a very different programme to the others.

There was a general feeling that there should be emphasis on practical work, but it would be foolish to expect to turn children of this age group into fully trained farmers, technicians or tradesmen. They will need a variety of work and recreation. The most important thing is that they should gain experience and confidence in solving problems which will carry over to life after school.

The committee thought that the basic subjects of Maths and English should be used in other subjects rather than being formally taught without any clear purpose. It is easy to find ways of using Maths in practical subjects - not quite so easy with English. Most other academic and practical work is being grouped under four main centres of interest:

AGRICULTURE:

In most New Secondary Schools agriculture will be the most important subject. It is hoped that it will have a scientific and experimental approach built in. There should also be emphasis on records and the business side of agriculture and on understanding the reasons for new developments in the Solomons. Practical work will include making as large a contribution as possible to producing the school's own food. School Boards will make their own decisions as to whether to try to get some small-scale machinery to help in this.
HANDCRAFT:

Handcraft will include traditional and modern crafts based on hand tools and, where possible, local materials. Woodwork will be the basic course but other crafts such as carving, weaving, etc. will be included according to local interests and the help available. The same will apply to practical work in other fields such as simple plumbing, mechanics (including outboard engines), pottery, use of concrete and simple metalwork. There will not, at first, be teachers available for all these things.

HOME CRAFT:

Homecraft will include nutrition, cooking, dressmaking, family health, first aid, budgeting, consumer-education and child care. As with the other practical subjects much of the course will be for both boys and girls but with some topics for one group only.

DEVELOPMENT STUDIES:

This will include study of national development and planning (social, political and economic), simple ideas of how the economy works, money and business studies (including cooperatives), government, etc. The theme will be the need to understand how decisions are taken at local and national level and the choices open to us. Conservation will be stressed as well as change.

CULTURE:

The committee was not sure that turning 'culture' into a school 'subject' was a good idea. If everything we teach starts from the local area all the subjects suggested have something of our culture in them. The more obvious aspects of cultural activities such as stories, songs, dances and local crafts will give many chances to involve local people in school activities.

PHYSICAL EDUCATION:

The popular idea of this is providing a variety of sports and leisure activities to help keep young people healthy and happy. This will be important but, as with other subjects, we should consider what is useful in rural life. If those who leave these schools know the rules of games, can measure and mark out pitches, referee, make simple equipment and plan the draw for a competition, they will be able to help themselves and others.

RELIGIOUS EDUCATION:

The churches are working out an agreed syllabus. No school will belong to any particular church. How much churches are involved in school life will depend on what parents want. The schools will belong to local people.

This article has been concerned with the thinking which lies behind the proposals for New Secondary Schools. The next will deal with their immediate problems, hopes and fears, and how we can help them succeed.
NEW SECONDARY SCHOOLS:

The first article was concerned with the background to the scheme and an outline of what the schools hope to do. This week's article describes some ways in which the schools can be helped, some details of their organisation - and the immediate plans for 1976.

HELP FROM LOCAL PEOPLE:

Parents should remember that these are to be their own local secondary schools. It may be difficult to see this in the first year. To be fair to parents in districts which do not get a New Secondary School this year, some places have been reserved for their children in the first four schools. So at first there will be a mixture of children. Some will be able to live at home and walk to school. Some will board, because their home is farther away. A few will be quite a long way from home. Within two years, with 4 more schools being opened each year, they will be almost entirely local.

Teachers will try to see that pupils learn things which will be useful to them when they go home. They can do this better if parents will tell them what they would like their children to learn.

This can be done in several ways.

Local people, whether they are parents or not, will be welcome to visit the schools, walk around and see what is going on. They can talk to teachers and make their own suggestions. If they live close enough they can give some personal help - for instance a good gardener or farmer could give up part of a day to show pupils what methods he uses, either at his own home or in the school garden. Pupils could try this and other methods and compare results. Local people skilled in particular crafts such as carving, basketry, canoe building, house construction or anything else will be more than welcome to demonstrate at the school or at their homes. The same applies to people with knowledge of local customs, dances, games or stories. The best way to influence what pupils learn is to go and help.

Anyone with a special interest in education can offer to serve on the school Board of Management which will control most of the activities of the school.

Parents who live farther away can send suggestions to the Board.

HELP IN RETURN FROM SCHOOLS:

It is important that children should not feel that school is something quite different from the rest of life. The more contact they have with the life of the area around the school the better. Newly opened schools will be busy with their own problems for some time but, once established, they should actively look for ways in which they can be helpful.

People should tell the Headmaster when some help from pupils would be welcome, whether in collecting materials for building a home, clearing land, digging a drain, or whatever. The timetables of these schools will be flexible enough to allow a group of pupils to volunteer to help.
2.

Schools could arrange entertainments in villages or at the school - or in a hospital when near enough.

Some sharing of use of buildings and games facilities should be possible if schools are asked in good time.

If there are things which local people would like to buy, this can be considered in planning practical work. It might be anything from furniture to food.

HELP FROM OTHER SOURCES:

If the first New Secondaries are a success the plan is to have 20 opened within 5 years. This will provide a network of centres which can be used by extension workers from any Ministry. During term time the school buildings can be used for talks, films or demonstrations for adults. When suitable, pupils can also attend. Residential courses could be held during school holidays. We must try to build up the idea that these schools are places worth visiting, where something interesting is always happening.

School staff will not at first be experts in all the subjects in which they would like to provide courses. If workers in other departments such as health, agriculture, public works etc. can advise teachers, and even occasionally help in instruction themselves it will be much appreciated. This is not "asking others to do the Education department's job for them". We are all doing the same job for the same people. It is just a matter of making the best use of the experts in an area.

Even use of a school as a meeting place, where extension workers from different departments discussed the problems of the area and how they were tackling them, would be valuable to teachers.

Finally, anyone, including private individuals, who is about to throw something away, can give a thought to the nearest school first. An old outboard or vehicle engine, even a few old spark plugs, may be useful to a school. If children are to do practical work they must have things to handle. We shall never be able to afford to provide more than one or two new items like outboards to each school.

RESPONSIBILITY FOR SCHOOLS:

The Ministry of Education and Cultural Affairs will be responsible for an overview of policy, but detailed decisions on almost all aspects of the policy of each school will be taken by the school Board of Management, under each Council, which will meet at least once each term. Most members of this board will be local people. It will be set up by the Council's District Education Board with guidance from Ministry of Education & Cultural Affairs.

District Education Boards, which will become sub-committees of District Councils, will eventually each have several New Secondaries in their care, as well as all the district's primary schools. The idea of most responsibility for education being at District level is all a part of the move to 'devolution' of powers to Councils. In the case of New Secondaries it is only possible to release the UK grant money after local acceptance of responsibility for the schools, since the whole aid request was worded as a local scheme.
Responsibility for day to day running of the schools will
of course lie with the Headmasters and their staffs, who will
also be represented on the Boards of Management.

FINANCING OF SCHOOLS:

Initial building and equipment costs are mostly covered
by UK Grants. Teachers' salaries will be paid directly by
Ministry of Education & Cultural Affairs. Each school will
receive annually from Ministry of Education & Cultural Affairs
a Boarding Grant, a Recurrent Equipment Grant and a small Pupil
Travel Grant. These grants will be paid through the Councils' 
District Education Boards to the Boards of Management. The 
Board of Management will also raise money by charging school 
fees. There may also be a small 'buildings fee' to help keep 
buildings in good repair - but it is hoped that some parents
will contribute labour and materials instead.

If a school Board of Management wishes to raise extra
money by the sale of things produced by pupils, it will be
free to do so - and also to allow pupils to earn some money
for themselves.

BUILDINGS AND EQUIPMENT:

The first four schools will each get 3 new specialist
buildings paid for by a UK grant, but built by local councils.
The new buildings will be a Handicraft workshop, a Homecraft
room and an Agricultural Science Laboratory.

Equipment for these buildings and tools for the practical
subjects are being provided by aid from UK and New Zealand.
Some of this is tied to purchase in UK, so shipment may delay
the arrival of some of it until about May 1976. However, enough
equipment has been bought locally for the schools to open in
March, with a limited intake.

Similar grants have also been agreed for the second
4 schools.

Apart from the 3 new buildings the schools will use
existing accommodation plus any improvements the Board of
Management and parents want and can afford. Part of the UK grant
is for conversion of existing buildings.

Boards of Management will be responsible for decisions
in the ordering of books and other equipment.

PUPILS:

Each school will have approximately 210 pupils, of whom
25% will be girls. Because of the change to a 6 year primary
course we have both P6 and P7 leavers this year, which makes
selection of the entry very difficult. But we must start at
some point, and Ministry of Education & Cultural Affairs realises
and is sympathetic to the difficulties faced by some parents
this year. In future years each established school will have
an annual intake of 105 pupils who will spend 2 years in the
school. Most of them will be P6 leavers, though Boards will
also be able to recommend some other entrants who left primary
school in previous years. If the scheme is successful it is
hoped that by 1979 all pupils entering Primary One in the
Solomon will have ahead of them the prospect of at least 8
years of education - in that by the time they leave P6 in 1985
there could be enough secondary places for them all.
Each school will have 8 teachers. The target for the first few years is that 6 of these, including the Headmaster, should be Solomon Islanders. The other 2 will be American Peace Corps volunteers. The Peace Corps will try to supply some of the skills which we are not yet able to provide from our own teaching force, whilst being guided by their Solomon Islander colleagues in judging what is appropriate to local needs. If they are as good as the volunteers we already have, quietly doing a good job behind the scenes in co-operatives and the census, there will be no problems in having a staff with such varied backgrounds. Solomon Islander staff will be a mixture of experienced teachers, newly-qualified teachers who have done a special 3rd year course at the Teachers' College, and specialists in technical subjects and agriculture who have done a one year course at the College.

Preparations for 1976:

The Peace Corps are running their own training course, during December and early January, at the Teachers' College. Much of this is being conducted by Solomon Islander trainers. It includes pidgin. Some of them will be spending Christmas in the homes of the newly qualified local teachers.

From 5th January to 19th February it is hoped to have all the staff of the new schools, including Headmasters, together at the Teachers' College. Much of their time will be spent in planning the teaching work they will do in the schools. They will also have discussions with officials from the Ministry of Education about the administration and financing of the schools. There will be talks with members of other Ministries about their views on New Secondaries and ways in which school staff can liaise with their extension workers in the Districts. There will be chances to sit together as school teams and decide "who teaches what" and plan timetables. Perhaps most important will be getting to know each other and making contacts which will keep the schools and Teachers' College linked and helping each other during the year.

In mid-February the teachers will go to their schools and on 1st March each school will admit 70 boys, all F7 leavers. They will have some normal teaching but will also be helping staff with all kinds of practical work to prepare for the full opening of the schools on 1st May. They will then be joined by 140 more boys and girls.

District staff will have an extremely busy time between now and the schools' opening. New buildings have to be started, old ones renovated and gardens planted. There will probably be some aid from New Zealand in supplying tinned food to help see the schools through the early stages but it is important that their own food production should be under way as soon as possible. Now is the first chance for people living near the schools to lend a hand.

The third article in this series will sum up, and discuss the problems expected and the chances of real success for New Secondaries.
This third and final article discusses some of the alternatives to New Secondary schools which were considered, problems which are expected, and the chances of success.

**FUTURE NEW SECONDARY EXPANSION**

In 1977 schools will be opened in Isabel, Eastern Outer Islands, Gela and Honiara. After that it will be a matter of distributing future schools in relation to population. In each 5000 people in the Solomons there are about 225 children aged 14 and 15. If that structure of population continues, and the present size of school is found satisfactory, the ultimate aim would be one New Secondary in each area with 5000 people. The census will tell us more about the structure and distribution of population as well as the total number. Of course, any increase in the total number of children will mean difficult decisions in sharing the money available between Primary and Secondary expansion.

Now that District-Councils are beginning to understand and accept the freedoms and responsibilities that 'devolution' gives them, they can begin to plan wisely. One of the most important jobs is to choose and reserve suitable sites for new schools well in advance of their opening. In 1975/76 the urgency of providing for both P6 and P7 leavers and the delay in discussing and revising the Education White Paper meant that things were rather rushed. Now that a pattern of procedure is established it should be possible for plans to go more smoothly.

**ARE NEW SECONDARIES THE RIGHT ANSWER?**

Arguments over alternative school systems never cease. Even countries which have long been rich enough to provide free secondary education for all, still have fierce arguments going on, and people both in and out of politics campaigning for changes. In Britain, for instance, there is a whole series of different systems of secondary education operating at once, and a great deal of indecision.

The recent South Pacific Commission 'workshop' in Honiara and later visits to a variety of training centres in Papua New Guinea, was an attempt to examine, discuss and evaluate some of the attempts being made to provide training for young people in the Pacific. There were criticisms of almost every scheme discussed and seen, including the Solomons New Secondary Programme but nobody in the workshop claimed to have a perfect answer. It is always easier to identify problems than to solve them. However, no wise planner sticks rigidly to something which can be seen not to work. Experience will show to what extent we have to be flexible and perhaps, in time, modify the New Secondary scheme.

The Solomons are at a stage of development where outside financial aid is needed for many of the larger developments which are wanted quickly. It is easier to get aid if you have a definite plan. People like to know what their money is to be used for. It was necessary to make a decision on expansion of the educational system and the proposed size and distribution of New Secondaries were the result of that decision.

**WHAT KINDS OF SECONDARIES?**

The S.P.C. 'workshop' suggested that New Secondary schools with about 50 pupils, instead of 210, might be better. This would of course improve their chance of being truly local. Also less pupils would need to live away from home — though in many parts of the Solomons a large number would still need to be boarding.
If this were done we should need 4 smaller schools of 50 per every school of 210 at present planned. If we could only afford to pay the same number of teachers, that would mean only 2 teachers per school and there could not be specialists in all the subjects we want. There would be 4 sets of buildings instead of one so that costs per pupil would be higher. The same would apply to some equipment.

Smaller schools would be an attractive alternative if we became rich enough to afford 4 teachers for 50 pupils.

Compromise

The chosen pattern and size of the first New Secondaries was therefore a compromise - as almost all decisions are. It has the advantage that, with 8 teachers, some can be specialists. The schools are big enough to afford some specialised equipment. They will be spread over the country widely enough to have a chance of varying their courses to suit local needs. They are small enough to be communities, not human factories. They will be close enough to rural people to have at least a chance of being seen as their own schools. They can certainly be controlled and guided at District level.

If we use them widely, they can become centres for part, at least, of an adult education scheme.

These schools will not be perfect, certainly not at first, and if weaknesses show up the scheme can be modified. But the decision to start them was not taken without thought. Having taken it we have to give it a chance and do our best to make it work.

Publicity

Probably these articles should have been written some time ago. Certainly it is clear that many people do not yet fully understand what New Secondaries are all about. However, the final approval of British aid, which made the whole thing in its present form possible, did not come until September 1975. To start training teachers earlier in the year had to be an act of faith.

The task now is to get the information to the many people who do not yet read Msedrum. Those who do read it and can explain to others will be a great help. Primary teachers always have to advise parents of children as they reach the end of their primary course. They will all be sent copies of these articles and should make sure that they pass the information on in a way that people can understand.

There have been radio talks in pidgin about changes in the educational system and there will be more. The trouble is that so many changes are taking place at once in the Solomons that people do not always absorb them until they are directly affected.

It will be interesting to see pictures in Msedrum of the work done in the new schools. But they will need a chance to settle down. It would be very difficult for teachers to get on with solving problems and trying out their ideas if they felt that they were being publicly examined right from the beginning.

Age of Pupils

The future pattern is of entry to primary school at about 7 years of age, then a 6 year course. This means that most children will enter New Secondaries at 13 or 14 and leave when they are 15 or 16. How much practical work can a pupil do at that age - and what will 15 or 16 year-olds find to do when they leave? This is not an easy question but, again, a consideration of the alternatives makes it one which must be faced.
One other possibility is to leave children at home for a year or two after leaving PG. This might make sure that by the time they entered New Secondaries they would have a clearer idea of what they wanted to learn and do in life. One disadvantage would be that it would make an obvious distinction if a child and friends going straight on to National Secondaries, so would feel that he had been left out.

Another possibility is for New Secondaries to provide a longer course. Some thoughts were given to making it a 3 year rather than 2 year course. The problem would then be that either we would have to provide many more teachers and larger schools, neither of which we can afford, or less schools which would give a chance to fewer children. The hope of a longer course probably has to remain a future prospect.

If young people are to benefit from two further years in school it will be necessary for parents to help them afterwards. Schools will also have to try to help by keeping an interest in their progress. With 105 children leaving each school per year, and only 8 teachers to a school, this is making a great deal of individual help and advice for every ex-pupil will not be possible, especially in the first few years when the schools serve a wider area. Teachers will hope to visit some ex-pupils in the holidays. Another suggestion is that, a year after leaving, all 105 ex-pupils should be invited back to the school for a week during the holidays. They would discuss what they had done, and what problems they found, and share ideas.

It is hoped that other extension workers in each area will also help with follow-up work and advice to young leavers. Whatever happens, the parents will still be the most important 'extension workers'.

LOCALISATION

If New Secondaries are to prepare pupils mainly for life in rural areas, they need staff who understand that way of life and know what changes people want and are ready for. That really means Solomon Islanders. The same applies to training the teachers for these schools and designing the curriculum. Expatriate staff at the Teachers' College and on the Curriculum Committee would agree with this—and Peace Corps volunteers only accept jobs on the understanding that a major part of their task is to fill a temporary need and replace themselves with local people as soon as possible.

The fact remains that if the New Secondary scheme is to expand rapidly there will be shortages of Solomon Islanders with the necessary skills for sometime. This makes it urgent that these Solomon Islanders who can contribute in teaching, training, or just advising, make every effort to do so.

At school level there is a particular need for Solomon Islanders who really believe in the importance of these schools, and are willing to lead an enthusiastic team of teachers, to come forward to serve as Headteachers.

SUCCESS OR FAILURE?

These must be schools where children are busy and happy. But in one sense success in this may create a problem. Young people who have enjoyed the company and shared activities of many others of their own age, may miss this when they return home. Parents will have to help them find interesting things to do and encourage them to use what they have learned. A further point is that unless village people increase their earnings from each crop, there will be no market for things which young people with new ideas want to produce. There is not much point in starting a small shop, or a bakery, or trying to sell furniture, in a village where nobody has any money. Nobody wants to turn Solomon Islanders into people who think of nothing but money but gaining economic independence as a nation, improving village life, and avoiding problems with discontented youths are all part of the same thing and need efforts from parents as much as from schools.
In 1970 the first 35 students left Kamaosi Rural Training Centre. In 1972 a check was made to find out what had happened to them. 12 were back in their own villages and said they were using the skills they had learned at the RTC. 2 were in their own villages “doing nothing”; 9 were working elsewhere in Isabel in lumber, agriculture, etc.; 3 were on boats in the Isabel area; 6 were working at trades in Honiara and 3 were in Honiara “doing nothing”. Was this a success or a failure? The Rural Development Officer at that time concluded that to find the majority doing something useful in their own island, if not all in their own village, was at least a partial success. Schools will try to keep accurate records of their pupils and we hope that it will be possible to check what happens to them.

A third important check will be to see what parents feel about the schools after some time. If they see them as something foreign and nothing to do with them then they will probably have failed. If they increasingly take an interest in the schools and ask that their children learn what they see as their needs, whether for family and village projects, or just to be good people — then they will have succeeded.

Then the time comes to judge New Secondaries we shall also be judging ourselves.

For the time being we should avoid any judging and concentrate on helping. Teachers in the new schools will not be looking for sympathy. They know what their problems will be, and accept them. What they do want is time to settle down before facing criticism — and for people to show interest and do everything they can to help.
APPENDIX C

LIST OF AIMS FOR THE HONIARA NEW SECONDARY SCHOOL

Compiled by Norman Gleadow
SOURCE 1: Government Education Policy 1975-79 White Paper

a. To complete the basic education begun in the 6 year Primary course.

b. To equip the child for young adult situations and responsibilities.

c. To provide a basis for technical learning and employment in agriculture, trading and industry.

d. To develop interests and skills with roots in the cultural heritage.

SOURCE 2: Minutes of the Curriculum Development Meeting Oct. 1976

a. Provide some post-primary education which would be of some use to the students.

b. Provide training which will lead to a better chance of employment.

SOURCE 3: Development Studies Syllabus SITC

a. Produce young people who are flexible and resourceful, used to basing their judgements on considered facts, and who try to find out what they don't know.

SOURCE 4: Articles in the "Newa Drum"

a. To keep the children close to their own homes and not take them away to boarding schools.

b. Provide opportunities that will not alienate young people from their parents and villages.

c. Provide learning opportunities which are suited to the life of the majority of Solomon Island people.

d. Give the pupils experience and confidence in solving problems which will carry over to life after school.

e. Provide and emphasise practical work.

SOURCE 5: Sub-Regional Workshop on Planning Rural-Vocational Training (South Pacific Commission)

a. To provide standard 6 and 7 leavers with largely practical training, to equip them for successful life inside their own environment, in agricultural science, handicraft, homcraft, development studies etc.

SOURCE 6: "Education For What"

a. The New Secondary Schools should be designed to meet the needs of the villages in the area.

SOURCE 7: Miscellaneous

a. To ensure that students returning to their home villages are equipped with knowledge which will enable them to improve their living conditions and establish industry.

b. To encourage students to consider the changing possibilities of village life.

c. To provide the students with skills and experiences which would benefit the community and provide some remuneration to the pupil.

d. To provide centres for adult education.
APPENDIX D

MINUTES OF THE MEETING CALLED TO DISCUSS THE AIMS
OF THE HONIARA NEW SECONDARY SCHOOL
(from best available copy)
HONIARA NEW SECONDARY SCHOOL CURRICULUM

Record of a meeting held in the conference room of MECA HQ. on
Friday 11th February, 1977.

Present: N. Glendow (Visiting research worker)
J. Puia (SEO, Honiara)
T. Pacey (HM, Honiara NSS)
C. J. Skinner (S.I.T.C.)
S. Sipolo (SEC Secondary, MECA) - Chairman

Mr. Sipolo explained that the meeting had been called by Permanent
Secretary, MECA, to check to what extent the aims and curriculum proposals
for the Honiara New Secondary School were in accord with those of the
New Secondary schools in general. The school course should be regarded, as
with the other schools, as a terminal course, with no chance of it leading
to direct entry to HNI. As with the other schools, English and Maths
should in general be taught within the other subjects, not as separate
subjects themselves. Any differences from other NS schools should be
simply those arising from the general principle of serving the needs of
the local area, in this case Honiara, and the opportunities and problems
it would offer to school leavers.

It was proposed that the meeting should examine the aims of the
school in the light of a list of NSC aims which Mr. Glendow had extracted
from a variety of documents. Of these only the 'White Paper' represented
official Government Policy - though the others reflected Ministry thinking
since production of the White Paper.

On examining the aims stated in the White Paper it was felt that the
school and the proposed curriculum (attached) could achieve those aims.
There would be some bias towards urban employment, inevitably, but the
fact that the HM had located some land in a small valley behind the school
and possibly could get access to some Government land on the banks of the
Hatandeu, meant that useful vegetable and chicken projects could be
attempted. Viewing Honiara and fringes as the school's 'local area' this
seemed realistically oriented towards the children's possible future lives.

Aims 4 (a) "Keep children close to their own homes..." and 4 (b) ..
"not alienate young people from their parents and villages" were considered
carefully. The key point was whether Honiara was considered as their
'home' or not. Mr. Puia said that all children in the 1977 entry had given
a Honiara address as 'home' on selection form 7C - and all but one had
been attending Honiara Primary schools for some years. Mr. Skinner
thought there would still be some children in the school whose parents
would plan to send them back to their 'other home' in a rural area if they
did not find employment in Honiara. It was agreed that the questionnaire
prepared by the school staff would supply some answers to this and should
be sent to parents as soon as the school opened.
The proposed 'agriculture' and 'business' curricula would be useful whatever children did afterwards. Mr. Facey thought the majority of children would continue to live with their parents in Honiara after the 2 years in school. Mr. Pua agreed and thought part of the course should be a preparation for helping parents in home and garden in Honiara. Messrs Sipolu, Pua and Facey all thought that about 50% of Honiara people had garden land on the fringe of town where many school leavers could work. The questionnaire should resolve this also.

In general the meeting concluded with the view that the proposals made by Headmaster and staff were sensible and within the stated aims of official policy for New Secondary Schools. Differences in emphasis simply reflected the needs of people in the Honiara area, and the facilities available in town. From the point of view of 'culture' the school would be more 'national' than the others, reflecting the varied pre-town backgrounds and continuing links to rural areas, of parents.

Some further matters which would affect the school and its curriculum were (a) the proposed questionnaire, (b) possibilities of evening classes in typing and shorthand at HTI (PS MECA to be asked if he would discuss with Principal, HTI as to whether some places could be reserved), (c) the capabilities of the school staff (not yet fully known), (d) any more up to date information on likely future job opportunities in and around Honiara (from Central Planning or other sources), (e) finance available.

As with all NS Schools staff would need to give considerable attention to building meaningful use of Maths and English into other subjects. With its access to town library, newspapers and the 'business' aspects of town life this should be rather easier here than in rural schools.

C. J. Skinner

Attached:— (i) School Staff curriculum proposals
(ii) Stated aims of New Secondary Schools.
APPENDIX E

BIBLIOGRAPHY OF SOURCES USED TO COMPILE THE
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Oct. 29, 1975
April 22, 1976
Aug. 14, 1976
Oct. 27, 1976
APPENDIX F

INSTRUCTIONS FOR THE INITIAL CATEGORIZATION

OF THE UNITS OF STUDY
DEAR RESPONDANT:

HERE ARE A LARGE NUMBER OF POSSIBLE COURSES FOR STUDY IN THE HONIARA NEW SECONDARY SCHOOL. THEY ARE WRITTEN ON CARDS. PLEASE DIVIDE THEM UP INTO GROUPS SO THAT YOU HAVE SIMILAR COURSES IN EACH GROUP. FOR EXAMPLE, ONE OF YOUR GROUPS MIGHT CONTAIN COURSES WHICH COULD BE GROUPED TOGETHER AS "AGRICULTURE COURSES". THE NUMBER OF COURSES IN EACH GROUP DOES NOT HAVE TO BE THE SAME. THE NUMBERS ON THE CARDS HAVE NOTHING TO DO WITH THE GROUPING. THEY ARE FOR IDENTIFICATION PURPOSES.

IN THE CHART BELOW, PLEASE NAME EACH GROUP THAT YOU DETERMINE, AND RECORD THE IDENTIFICATION NUMBERS OF THE COURSES WHICH YOU PLACED IN THAT GROUP.

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<tr>
<th>THE NAME YOU WOULD GIVE THE GROUP</th>
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PLEASE RECORD THE IDENTIFICATION NUMBERS OF ANY CARDS' STATEMENTS WHICH YOU CONSIDER TO BE UNCLEAR OR POORLY WORDED.

ARE THERE ANY OTHER COURSES WHICH YOU THINK SHOULD BE ADDED?
IF SO, PLEASE WRITE THEM BELOW, AND INDICATE WHICH OF YOUR GROUPS YOU WOULD PUT THEM IN.
APPENDIX G

INSTRUCTIONS FOR CATEGORIZING THE UNITS OF INSTRUCTION
THE HONIARA NEW SECONDARY SCHOOL NEEDS ASSESSMENT

INTRODUCTION:

IN THE WHITE ENVELOPE TO YOUR RIGHT ARE A NUMBER OF POSSIBLE TOPICS, TYPED ON SLIPS OF PAPER, FOR THE HONIARA NEW SECONDARY SCHOOL. PLEASE READ THE FOLLOWING STEPS FOR ASSIGNING THE TOPICS. WHEN YOU HAVE FINISHED READING, THEN PLEASE ASSIGN THE TOPICS AS REQUESTED. CHECK EACH STEP AS YOU COMPLETE IT. THANK YOU FOR YOUR TIME.

NORMAN E. GLEADOW

STEP 1: CAREFULLY GO THROUGH THE TOPICS ON THE SLIPS OF PAPER AND PLACE EACH ONE IN THE BROWN ENVELOPE WITH THE CATEGORY HEADING YOU CONSIDER APPROPRIATE.

STEP 2: WHEN ALL THE SLIPS OF PAPER HAVE BEEN PLACED IN THE DIFFERENT ENVELOPES, TAKE-OUT EACH SET FROM EACH ENVELOPE IN TURN AND GO THROUGH THEM UNTIL YOU ARE ABSOLUTELY SURE YOU HAVE PLACED THE TOPICS IN THE APPROPRIATE ENVELOPES.

STEP 3: WHEN YOU ARE COMPLETELY SATISFIED WITH THE WAY IN WHICH YOU HAVE ASSIGNED THE TOPICS, THEN CLOSE UP THE FOLDER AND RETURN IT TO NORMAN GLEADOW.

NOTES:

1. THE NUMBERS ON THE SLIPS OF PAPER ARE FOR IDENTIFICATION PURPOSES ONLY, AND HAVE NOTHING TO DO WITH THE WAY IN WHICH YOU ASSIGN THE TOPICS.

2. THE NUMBER OF SLIPS OF PAPER IN EACH ENVELOPE DOES NOT HAVE TO BE THE SAME.

3. EACH TOPIC SHOULD BE ASSIGNED TO AN ENVELOPE.
APPENDIX H

INSTRUCTIONS AND INSTRUMENT FOR RATING THE CURRICULUM

OPTIONS IN PHASE I OF THE STUDY
1. DEAR RESPONDANT:

The work that you will be asked to do on the following pages is important. It will be used to help determine the curriculum of the HONIARA NEW SECONDARY SCHOOL. Thank you for the time you will spend on it.

PLEASE READ THE FOLLOWING AIMS AND CHARACTERISTICS CAREFULLY

2. THE AIMS OF THE HONIARA NS3:
   a. To provide the student with the knowledge and skills that will help the student live a useful life in Honiara.
   b. To provide the student with chances to learn things which are suitable for living in Honiara.
   c. To provide training which will lead to a better chance of employment.

3. THE CHARACTERISTICS OF THE HONIARA NS3:
   a. The school will be located in the buildings which used to be the Honiara Government Primary School (GPS), beside the Matanikau River.
   b. The school will have enough land for demonstration plots in agriculture.
   c. The students will be day students. They will not have to produce their own food at school.
   d. All the students will be from Honiara primary schools.
   e. All of the students will have completed standard 6.
   f. The School's program will be 2 years in length.

4. In the following pages you will be asked to make judgements about topics which have been suggested for the Honiara NS3. You will be asked to indicate how important each topic is in helping the students in the school meet the above aims. Some of you will be asked to do this for boys in the Honiara NS3, and some for girls in the Honiara NS3.

There are no "correct" answers. This is not a test. But please do your work carefully. Do not put your name on any of the papers.

Thank you for your cooperation

Norman Gleadow
THE FOLLOWING SUBJECT HEADINGS HAVE BEEN SUGGESTED FOR THE
HONIARA NEW SECONDARY SCHOOL, UNDER EACH SUBJECT HEADING IS
A SHORT DESCRIPTION OF THE SORTS OF THINGS WHICH MIGHT BE
INCLUDED. THIS IS TO GIVE YOU AN IDEA OF WHAT IS BEING CONSIDERED, AND DOES NOT REPRESENT THE FINAL FORM OF THE SUBJECTS.


2. ANIMAL AGRICULTURE: raising farm animals such as pigs and chickens, and other animals which could make money for the student such as dairy cattle, beef cattle, crocodile raising and rearing turtles.

3. PLANT AGRICULTURE: the efficient production of traditional and cash crops. Improving soil conditions by irrigation, fertilizers, and compost, and marketing the farm products.

4. FISHING: methods of catching and marketing fish from the sea and from the rivers. Catching shell fish and bait fish.

5. SMALL BUSINESS STUDIES: the skills needed to open a small business, market farm products, operate a small shop, start a cooperative. Simple book-keeping, banking, loans, and using money wisely.

6. TRADES: introduction to some of the trades such as blacksmithing, plumbing, welding, typing, bricklaying.

7. BUILDING AND CONSTRUCTION: building structures such as houses and latrines, and smaller things such as boats, leaf houses and septic tanks. Simple road and bridge construction.

8. MECHANICS: the repair and maintenance of simple engines such as outboard motors, motorcycle engines, power saws; and the care and maintenance of cars and trucks.

9. HOMECRAFTS: cooking and preparing food, sewing, child care and other skills for running a good household.

10. HANDICRAFTS: the traditional skills such as weaving, carving, making shell jewelry etc., and the newer crafts such as leatherwork, drawing and painting, candle making.

11. TRADITIONAL STUDIES: the traditional stories, songs and dances of people of the Honiara area.

12. HONIARA STUDIES: how to use the various facilities in Honiara such as the library, museum, hospital, community organizations, the police in Honiara, town politics, labour laws etc.

13. PERSONAL HEALTH: the recognition and treatment of disease and infection. Alcohol use, elementary first aid, family planning and how the body functions.

14. SOLOMON ISLAND STUDIES: Those topics which are about the Solomon Islands as a whole, such as its government, its economy, geography of the Solomons, its history, its industry.

15. RELIGIOUS EDUCATION: a religious education curriculum approved by all the church groups in Honiara.
INFORMATION ABOUT YOU

AGE____yrs SEX____ SCHOOLING ST.1 2 3 4 5 6 7 FORM 1 2 3 4 5

HOW LONG HAVE YOU BEEN IN HONIARA?

less than 1 year____ 1 yr__ 1½ yr__ 2yr__ 2½yr__
3yr__ 3½yr__ 4yr__ 4½yr__ 5yr__
more than 5 yr__

IN LIGHT OF THE AIMS OF THE HONIARA NSS, PLEASE INDICATE THE IMPORTANCE YOU FEEL EACH OF THE FOLLOWING TOPICS SHOULD HAVE FOR GIRLS IN THE HONIARA NSS. PLEASE REFER TO PAGE 2 FOR MORE DETAILS ABOUT EACH TOPIC.

**TOPIC 1: RECREATION AND GAMES**

EXTREMELY IMPORTANT VERY IMPORTANT SOMEWHAT IMPORTANT SLIGHTLY IMPORTANT NOT IMPORTANT

**TOPIC 2: ANIMAL AGRICULTURE**

EXTREMELY IMPORTANT VERY IMPORTANT SOMEWHAT IMPORTANT SLIGHTLY IMPORTANT NOT IMPORTANT

**TOPIC 3: PLANT AGRICULTURE**

EXTREMELY IMPORTANT VERY IMPORTANT SOMEWHAT IMPORTANT SLIGHTLY IMPORTANT NOT IMPORTANT

**TOPIC 4: FISHING**

EXTREMELY IMPORTANT VERY IMPORTANT SOMEWHAT IMPORTANT SLIGHTLY IMPORTANT NOT IMPORTANT

**TOPIC 5: SMALL BUSINESS STUDIES**

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### TOPIC 13: PERSONAL HEALTH STUDIES

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### TOPIC 14: SOLOMON ISLAND STUDIES

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### TOPIC 15: RELIGIOUS EDUCATION

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eexercise 2 RANKING THE TOPICS

**MOST IMPORTANT**

---

**LEAST IMPORTANT**
APPENDIX I

INSTRUCTIONS FOR RANKING THE CURRICULUM OPTIONS

IN PHASE I OF THE STUDY
In the small envelope attached to this page, are the fifteen (15) topics, which have been suggested for the Honiara NSS, written on slips of paper. Please take them out of the envelope and place them on your desk. Count them to be sure you have all 15 topics.

In this exercise you are asked to rank order the topics in terms of their importance for GIRLS in the Honiara NSS, in light of the aims of the NSS.

**STEP 1:** SPREAD OUT THE SLIPS OF PAPER ON YOUR DESK SO THAT YOU CAN SEE THEM ALL.

**STEP 2:** PICK OUT THAT TOPIC WHICH YOU THINK IS THE MOST IMPORTANT FOR GIRLS IN THE HONIARA NSS.

**STEP 3:** PLACE THAT MOST IMPORTANT TOPIC AT THE TOP OF YOUR DESK.

**STEP 4:** PICK OUT THAT TOPIC YOU THINK IS THE NEXT MOST IMPORTANT TOPIC FOR GIRLS IN THE HONIARA NSS.

**STEP 5:** PLACE THAT NEXT MOST IMPORTANT TOPIC BELOW THE FIRST ONE YOU CHOSE.

**STEP 6:** CONTINUE TO DO THIS UNTIL ALL 15 TOPICS ARE ARRANGED IN A COLUMN DOWN YOUR DESK. THE TOPIC AT THE TOP OF YOUR COLUMN SHOULD BE THE MOST IMPORTANT ONE FOR GIRLS; AND THE TOPIC AT THE BOTTOM OF THE COLUMN SHOULD BE THE ONE YOU THINK IS LEAST IMPORTANT FOR GIRLS.

When you are completely satisfied with the way you have arranged the topics, then record the order you have made in the space provided at the end of the previous exercise. Simply write the identification numbers from the slips of paper in the spaces provided.
APPENDIX J

THE "REASONS" LIST FOR EACH CURRICULUM OPTION CHOSEN

FOR PHASE II OF THE STUDY

(PAGE 1 OF EACH RSQ)

DESCRIPTION OF THE TOPIC: Mechanics would include the repair and maintenance of simple machines such as outboard motors, motorcycle engines, power saws, and simple household machines, and the use of tools.

REASONS

1. THE BOYS WILL USE OUTBOARD ENGINES AND OTHER MACHINES WHEN THEY GET OLDER.

2. THE COURSE WOULD GIVE THE BOYS SOME EARLY TRAINING FOR A JOB IN MECHANICS.

3. THE BOYS WOULD PLAY ABOUT TOO MUCH IN A MECHANICS COURSE.

4. IF THE BOYS KNOW HOW TO PROPERLY CARE FOR MACHINES, THE MACHINES WILL LAST MUCH LONGER.

5. THERE ARE NOT MANY MECHANIC JOBS IN THE SOLOMONS OR IN HONIARA.

6. VERY FEW PEOPLE HAVE ANY TRAINING IN MECHANICS.

7. THE BOYS WOULD LEARN TO FIX THE MACHINES THEY HAVE AT HOME WITHOUT HAVING TO SPEND MONEY FOR SOMETHING ELSE TO COME.

8. MORE MACHINES ARE NOW USED IN HONIARA HOMES THAN EVER BEFORE.

9. THE BOYS CLOTHES WOULD GET DIRTY.

10. THERE ARE VERY FEW MACHINES IN THE BOYS HOME VILLAGES.

11. THE BOYS COULD MAKE SOME MONEY BY REPAIRING OTHER PEOPLE'S MACHINES.

12. THE TOOLS FOR MECHANICS COST A LOT OF MONEY.

13. MACHINES ARE BECOMING PART OF DAILY LIFE IN THE SOLOMONS.

DESCRIPTION OF THE TOPIC: Mechanics would include the repair and maintenance of simple machines such as outboard motors, motorcycle engines, power saws, and simple household machines, and the use of tools.

REASONS

1. THE GIRLS WILL USE OUTBOARD ENGINES AND OTHER MACHINES WHEN THEY GET OLDER.
2. A MECHANICS JOB WOULD TAKE THE GIRLS OUT OF THE HOME.
3. THE COURSE WOULD GIVE THE GIRLS SOME EARLY TRAINING FOR A JOB IN MECHANICS.
4. GIRLS ARE TOO SLOW DOING MECHANICAL JOBS.
5. THE GIRLS ARE TOO YOUNG TO TAKE A MECHANICS COURSE IN THE HONIARA NEW SECONDARY SCHOOL.
6. GIRLS ARE NOT INTERESTED IN MECHANICS.
7. IF THE GIRLS KNOW HOW TO PROPERLY CARE FOR MACHINES, THE MACHINES WILL KEEP GOING FOR A LONG TIME.
8. GIRLS DO NOT HAVE THE ABILITY TO LEARN HOW TO DO MECHANICS.
9. THERE ARE NOT MANY MECHANICS JOBS IN THE TOWN OR IN THE REST OF THE SOLOMONS.
10. THE GIRLS COULD MAKE SOME MONEY BY REPAIRING OTHER PEOPLE'S MACHINES.
11. VERY FEW PEOPLE IN THE VILLAGES HAVE ANY TRAINING IN FIXING MACHINES.
12. THE GIRLS WOULD LEARN TO FIX THE MACHINES THEY HAVE AT HOME WITHOUT HAVING TO SPEND MONEY FOR SOMEONE ELSE TO COME.
13. THE GIRLS CLOTHES WILL GET DIRTY.
14. FIXING MACHINES IS NOT A CUSTOMARY ROLE FOR WOMEN OR GIRLS IN THE SOLOMONS.
15. MORE MACHINES ARE NOW USED IN HONIARA HOMES THAN EVER BEFORE.
16. THERE ARE VERY FEW MACHINES IN THE GIRLS' HOME VILLAGES.
17. THERE ARE NO GIRL OR WOMEN MECHANICS IN THE SOLOMON ISLANDS.
18. MACHINES ARE BECOMING PART OF DAILY LIFE IN THE SOLOMONS.
TOPIC TO BE CONSIDERED: Homemights for BOYS in the Honiara New Secondary School.

DESCRIPTION OF THE TOPIC: Homemights consists of learning about proper foods to feed the family, cooking, sewing, proper child care, and other skills needed to keep a home in Honiara.

REASONS

1. MOST SOLOMON ISLANDERS ARE HEALTHY USING THE TRADITIONAL METHODS OF HOMEMIGHTS.

2. BOYS WHO TAKE HOMEMIGHTS MAY BE ABLE TO GET JOBS AS HOUSEBOYS.

3. HOMEMIGHTS ARE USED IN EVERYDAY LIFE.

4. HOMEMIGHTS TEACH HEALTHIER WAYS OF LIVING IN HONIARA.

5. THERE ARE VERY FEW PAYING JOBS THAT USE THE HOMEMIGHT SKILLS.

6. HOMEMIGHTS IS GIRLS OR WOMEN'S WORK BY CUSTOM AND TRADITION IN THE SOLOMONS.

7. THE BOYS IN THE SCHOOL ARE TOO YOUNG.

8. THE BOYS ALREADY KNOW HOW TO DO MOST HOMEMIGHT SKILLS.

9. SOMETIMES THE FATHER IN A FAMILY WILL HAVE TO DO THE COOKING AND LOOK AFTER THE HOME AND THE CHILDREN.

10. THERE ARE NO STRONG TRADITIONAL REASONS IN TOWN WHICH SAY HOMEMIGHTS ARE ONLY FOR GIRLS.

11. IF THE BOYS LIVE AWAY FROM HOME THEY WILL HAVE TO LOOK AFTER THEMSELVES.

12. EVEN THOUGH THE BOYS LEARN NEW HOMEMIGHT METHODS IN THE SCHOOL THEY WILL USE THE TRADITIONAL METHODS IN THE HOMES AND MEN USUALLY HAVE JOBS WHICH TAKE THEM AWAY FROM THE HOMES DURING THE DAY.

13. THE BOYS COULD USE THE HOMEMIGHT SKILLS THEY LEARN AT SCHOOL AROUND THEIR PARENTS' OR RELATIVE'S HOMES.

14. THE BOYS WOULD SAVE MONEY IF THEY LEARNED GOOD SHOPPING METHODS TO GET THEIR OEN CLOTHES.

15. THE BOYS WOULD BE ABLE TO HELP THEIR WIFE IN THE HOME WHEN THEY GET MARRIED.
TOPIC TO BE CONSIDERED: Homecrafts for GIRLS in the Honiara New Secondary School.

DESCRIPTION OF THE TOPIC: Homecrafts consists of learning about about proper foods to feed the family, cooking, sewing, proper child care, and other skills needed to keep a home in Honiara.

REASONS

1. THE GIRLS IN THE SCHOOL ARE TOO YOUNG.

2. THERE ARE NO STRONG TRADITIONAL REASONS IN TOWN WHICH SAY THAT HOMECRAFTS ARE ONLY FOR GIRLS.

3. THERE ARE VERY FEW PAYING JOBS THAT USE THE HOMECRAFT SKILLS.

4. GIRLS WHO TAKE HOMECRAFTS MAY BE ABLE TO GET JOBS AS HOUSEGIRLS.

5. HOMECRAFTS IS GIRLS OR WOMEN WORK BY CUSTOM AND TRADITION IN THE SOLOMONS.

6. THE GIRLS COULD USE THE HOMECRAFT SKILLS THEY LEARN AROUND THEIR PARENT'S OR RELATIVES HOMES.

7. THE WOMEN AND GIRLS HAVE TO DO HOMECRAFTS IN THE HOME BECAUSE THE MEN AND BOYS WOULDN'T DO THEM.

8. MOST SOLOMON ISLANDERS ARE HEALTHY USING THE TRADITIONAL INSTITUTE OF HOMECRAFTS.

9. THE GIRLS ALREADY KNOW HOW TO USE MOST HOMECRAFT SKILLS.

10. BOYS AND MEN USUALLY HAVE JOBS WHICH TAKE THEM AWAY FROM THE HOME DURING THE DAY.

11. HOMECRAFTS ARE USED IN EVERYDAY LIFE.

12. IF THE GIRLS LIVE AWAY FROM HOME THEY WILL HAVE TO LOOK AFTER THEMSELVES.

13. HOMECRAFTS TEACH HEALTHIER WAYS OF LIVING IN HONIARA.

14. EVEN THOUGH THE GIRLS LEARN NEW HOMECRAFT METHODS IN SCHOOL, THEY WILL USE THE TRADITIONAL METHODS IN THE HOME.

15. MOST OF THE GIRLS WILL BECOME HOUSEWIVES AND MOTHERS.

16. THE GIRLS WOULD SAVE MONEY IF THEY LEARNED GOOD SHOPPING METHODS AND SEWED THEIR OWN CLOTHES.
TOPIC TO BE CONSIDERED: Plant Agriculture for Boys in the Honiara New Secondary School.

DESCRIPTION OF THE TOPIC: The efficient production of plant crops would be studied and practiced. It would include traditional crops as well as cash crops, irrigation, improving soil conditions and some simple farm economics.

REASONS

1. Agriculture is part of a Solomon Islanders way of life

2. Some of the boys will be going back to their own villages when they have left the Honiara New Secondary Sch.

3. The soils in and around Honiara town are very poor for agriculture.

4. The boys would learn to grow crops other than just traditional crops.

5. The boys are too young to use modern methods of agriculture.

6. The boys' clothes will get dirty doing plant agriculture at the school.

7. The vegetables the boys learned to grow could be sold in the Honiara market.

8. Most of the boys already know how to grow the traditional crops before they came to the Honiara New Secondary Sch.

9. You don't need expensive equipment for plant agriculture so a boy would not need much money to start his own farm.

10. People in Honiara can buy all their food in the market, so they don't need a farm.

11. If a boy can not find a job in Honiara, then he must grow his own food.

12. A boy could not grow a cash crop on the small plots of land he would find in town.

13. There is a shortage of land for agriculture in Honiara.

14. The boys will not be able to get their own plot of land in Honiara.

15. There are no agriculture extension workers working with the people in Honiara town.

16. Plant agriculture is taught in all the other new secondary schools in the Solomon Islands.

17. At home the boys will use the traditional methods of agriculture, not the modern methods they learn at school.

18. The traditional methods of agriculture will not grow as much food as the modern methods.
TOPIC TO BE CONSIDERED: Traditional and cultural studies for all students in the Honiara New Secondary School

DESCRIPTION OF THE TOPIC: This course would include the study of the traditional dances, songs, music, crafts, stories and games of the different cultural groups in Honiara.

REASONS

1. Taking a course in traditional studies would encourage the students to keep some of the traditional ways.

2. The course would not teach the students anything which is modern.

3. A traditional or cultural studies course would give the students some traditional roles and ways to behave.

4. The things the students learn in traditional studies may not agree with what they are told in religious education.

5. The students are too young to get anything out of a traditional studies course.

6. The students could demonstrate some of the traditional ways to tourists for money.

7. Very few of the students know anything about their own cultures and traditions.

8. If the student has to leave Honiara, the traditional studies course would help prepare him for village life.

9. The students would learn what was tabu in the different cultures of the Solomon Islands.

10. There are too many different customs and traditions for the student to learn them all.

11. The students could use some of the things they learn in traditional studies for their own enjoyment.

12. The student could sell the traditional crafts he makes for money.

13. There is presently no syllabus which could be used for a traditional studies course in Honiara.

14. Traditional studies will teach the student some of the ways of the old people in the Solomons.

15. The Honiara people do not have any traditional ways.

16. Learning about other Solomon Island custom would help the student get along with other Solomon Islanders.

17. Learning about different traditions might confuse the student in the Honiara New Secondary School.

18. Most students in town will not use traditional or custom ways.

19. By learning about different Solomon Island customs and traditions, the student could look at the Solomons as a single nation.
TOPIC TO BE CONSIDERED: Religious education for students in the Honiara New Secondary School

DESCRIPTION OF THE TOPIC: Religious education would be the teaching of Christianity in the Honiara New Secondary School, by the different church groups.

REASONS

1. EVEN IF A STUDENT DID NOT FEEL RELIGIOUS HE OR SHE WOULD BE EXPECTED TO GO TO RELIGIOUS EDUCATION.
2. RELIGIOUS EDUCATION WILL NOT HELP, VERY MUCH, A STUDENT WHO HASN'T GOT CHRISTIAN BELIEFS IN THE FAMILY.
3. RELIGIOUS EDUCATION WOULD TEACH A STUDENT TO OBEY THE LAW.
4. THE STUDENTS IN THE SCHOOL HAVE SPIRITUAL NEEDS.
5. RELIGIOUS ED. MIGHT SHOW THAT SOME KINDS OF ECONOMIC DEVELOPMENT IN THE SALOMONS ARE WRONG.
6. RELIGIOUS ED. DEALS WITH A LOT OF BASIC MORAL PROBLEMS OF TOWN LIVING.
7. MOST PARENTS WOULD WANT THEIR CHILDREN TO TAKE RELIGIOUS EDUCATION.
8. THE STUDENT WOULD ONLY GET THE POINT OF VIEW OF HIS CHURCH, AND NOT THE POINTS OF VIEW OF OTHER CHURCHES.
9. THE MEMBERS OF THE SALOMON ISLAND CHRISTIAN ASSOCIATION THINK THAT RELIGIOUS ED. SHOULD BE TAUGHT IN THE SCHOOL.
10. THE THINGS THE STUDENTS LEARN IN RELIGIOUS ED. MAY NOT AGREE WITH CUSTOM AND TRADITIONAL BELIEFS.
11. RELIGIOUS EDUCATION IS SOMETHING THAT IS A JOB FOR IN THE CHURCH, AND NOT A JOB FOR IN THE SCHOOL.
12. SOME OF THE CHURCHES ARE NOT WORKED OUT WHETHER THERE IS RELIGIOUS EDUCATION IN THE SCHOOL.
13. RELIGIOUS EDUCATION WILL BE ABOUT THE CHRISTIAN RELIGION ONLY.
14. THE STUDENT WOULD BE TAUGHT ABOUT GOD AND JESUS.
15. TAKING RELIGIOUS EDUCATION MIGHT MAKE THE STUDENT MORE WILLING TO GIVE MONEY TO THE CHURCH.
16. RELIGIOUS EDUCATION WOULD SHOW A STUDENT HOW HE COULD BE FREE FROM THE FEARS AND MAGIC OF CUSTOM RELIGION.
17. A RELIGIOUS EDUCATION COURSE WOULD ENCOURAGE NON-CHRISTIAN STUDENTS TO BECOME CHRISTIANS.
18. RELIGIOUS EDUCATION WOULD GIVE SIMPLE CHRISTIANITY TO STUDENTS WHO CANNOT GET ANY RELIGION AT HOME.
19. THE STUDENTS WOULD BE SEPARATED IN RELIGIOUS EDUCATION ACCORDING TO THE CHURCH THEY BELONGED TO.
APPENDIX K

THE INSTRUCTIONS TO THE RESPONDENTS FOR COMPLETING THE RSQ'S
INSTRUCTIONS

STEP 1: Carefully read the TOPIC TO BE CONSIDERED. Be sure you understand whether it is for ALL STUDENTS, or just for GIRLS, or just for BOYS.

STEP 2: Read the DESCRIPTION OF THE TOPIC.

STEP 3: Read reason number 1. Each reason has 3 boxes beside it.

If you think that reason number 1 is a reason why we SHOULD teach the topic in the Honiara New Secondary School, then place a tick (✓) in the first box.

If you think that this reason is a reason why we SHOULD NOT teach the topic in the Honiara New Secondary School, then place a tick (✔) in the second box.

If you cannot make-up your mind, then place a tick in the third box. Only place a tick in the third box if you truly cannot make-up your mind, or if you think that the reason does not apply to the topic.

NOTE: YOU SHOULD ONLY PUT ONE TICK (✓) IN ONE OF THE THREE BOXES FOR EACH REASON!

STEP 4: Repeat STEP 3 with all the other reasons.

STEP 5: If you think of any reasons, which are not on the list, then add them to the bottom of the list of reasons, and follow the same procedure as you have with the other reasons.

STEP 6: Look over those reasons where you have placed ticks in the first column of boxes; that is, all those reasons why you think we SHOULD teach the topic in the Honiara New Secondary School.

Pick the reason which you think is the most important reason why we SHOULD teach the topic. Place the number "1" beside the box ticked (✓) for that reason.

Pick the reason which you think is the second most important reason why we should teach the topic, and place the number "2" beside the box ticked (✓) for that reason.

Pick the reason which you think is the third most important reason why we should teach the topic, and place the number "3" beside the box ticked (✓) for that reason.
STEP 7: Look over those reasons where you have placed ticks in the second column of boxes; that is, all those reasons why you think we SHOULD NOT teach the topic in the Honiara New Secondary School.

Pick the reason which you think is the most important reason why we SHOULD NOT teach the topic. Place the number "1" beside the box ticked for that reason.

Pick the reason which you think is the second most important reason why we SHOULD NOT teach the topic, and place the number "2" beside the box ticked for that reason.

Pick the reason which you think is the third most important reason why we SHOULD NOT teach the topic, and place the number "3" beside the box ticked for that reason.

STEP 8: Follow the instructions on the third page of the sheet of reasons.

STEP 9: Please go to the next topic.
APPENDIX L

SOLOMON ISLAND OCCUPATION CATEGORIES, AS COMPILED BY THE
STATISTICS DIVISION OF THE MINISTRY OF FINANCE, HONIARA
<table>
<thead>
<tr>
<th>Professional Technical and Related Workers</th>
<th>Administrative and Managerial Workers</th>
<th>Production and Related Workers, Transport Equipment Operators and Labourers</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-11 Chemists</td>
<td>2-01 Legislative officials</td>
<td>6-31 Loggers</td>
</tr>
<tr>
<td>0-12 Geologists</td>
<td>2-02 Government administrators</td>
<td>6-32 Forestry workers (except logging)</td>
</tr>
<tr>
<td>0-14 Physical science technicians</td>
<td>2-11 General managers (includes Ban, and other Financial Institution Managers)</td>
<td>6-41 Fishermen (including crews of Fishing vessels)</td>
</tr>
<tr>
<td>0-21 Architects</td>
<td>2-12 Production managers (except farm)</td>
<td>6-99 Other agricultural workers</td>
</tr>
<tr>
<td>0-22 Civil engineers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-23 Electrical engineers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-24 Mechanical engineers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-29 Other engineers (specify on form)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-31 Surveyors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-32 Draughtsmen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-33 Civil engineering technicians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-34 Electrical and electronics engineers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-35 Mechanical engineering technicians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-39 Other engineering technicians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-41 Aircraft pilots and navigators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-42 Ships’ deck officers and pilots</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-43 Ships’ engineers (including shore based)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-51 Biologists, zoologists and related scientists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-52 Bacteriologists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-53 Agronomists and related scientists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-54 Life scientists (including)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-61 Medical doctors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-63 Dentists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-64 Dental assistants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-65 Veterinarians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-66 Pharmacists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-68 Pharmaceutical assistants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-71 Professional nurses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-72 Nursing aids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-73 Student Nurses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-76 Physiotherapists and occupational therapists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-77 Medical X-ray technicians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-79 Health inspector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-81 Statisticians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-90 Economists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-10 Accountants and Auditors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-21 Lawyers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-22 Judges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-29 Jurists not elsewhere classified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-31 Tertiary teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-32 Secondary education teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-33 Primary education teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-34 Pre-primary education teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-39 Education advisers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-41 Ministers of religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-49 Other workers in religion (not including tradesmen)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-59 Authors, journalists and related writers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-61 Wood carvers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-62 Commercial artists and designers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-63 Photographers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-85 Motor vehicle drivers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-86 Marine mechanics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-88 Other employers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-89 Other institutions of government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-90 Rubber and plastics product makers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-91 Composers and typesetter builders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-92 Printing pressmen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-93 Other workers in religion (not including tradesmen)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**List of Occupations**

- **Administrative and Managerial Workers**
  - 2-01 Legislative officials
  - 2-02 Government administrators
  - 2-11 General managers (includes Ban, and other Financial Institution Managers)
  - 2-12 Production managers (except farm)
  - Clerical and Related Workers
    - 3-00 Clerical supervisors
    - 3-01 Government executive officials
    - 3-20 Personal Secretaries
    - 3-21 Stenographers, typists and teleypists
    - 3-22 Card and tape-punching operators
    - 3-31 Bookkeepers, cashiers and tellers
    - 3-41 Bookkeeping and calculating machine operators
  - Sales Workers
    - 4-00 Managers (wholesale and retail trade)
    - 4-10 Working proprietors (wholesale and retail trade)
    - 4-20 Sales Supervisors and Buyers
    - 4-31 Shop Assistants
  - Service Workers
    - 5-00 Managers (catering and lodging services)
    - 5-10 Working proprietors (catering and lodging services)
    - 5-20 Housekeeping and related service supervisors
    - 5-31 Cooks
    - 5-32 Waiters, bartenders and related workers
    - 5-40 Maids and room service workers
    - 5-51 Building caretakers and watchmen
    - 5-60 Launderers and pressers
    - 5-81 Fire-fighters
    - 5-82 Police and detective clerks
    - 5-89 Other protection service workers eg. Headmen, Warden
    - 5-99 Malaria sprayers

- **Agricultural Animal Husbandry and Forestry Workers, Fishermen**
  - 6-00 Farm and Plantation Managers
  - 6-10 Supervisors (including those persons with titles 'Bosshoy')
  - 6-15 Field assistants
  - 6-21 Corona Cutters
  - 6-22 Field crop and vegetable farm workers
  - 6-24 Cattle workers
  - 6-25 Piggery workers
  - 6-26 Poult workers
  - 6-28 Farm machinery operators (including tractor drivers)
  - 6-29 Extension assistants

- **Production and Related Workers, Transport Equipment Operators and Labourers**
  - 6-31 Loggers
  - 6-32 Forestry workers (except logging)
  - 6-41 Fishermen (including crews of Fishing vessels)
  - 6-99 Other agricultural workers
  - 7-00 Production Supervisors and General Foremen (specify trade)
  - 7-11 Miners and quarrymen
  - 7-31 Wood workers
  - 7-32 Sawyers
  - 7-71 Millers, pressers and related workers
  - 7-73 Butchers and meat preparers
  - 7-74 Fish Processors (including Canning and Freezing)
  - 7-76 Bakers, pastrycooks and confectioners
  - 7-80 Woodworkers and Rattan Furniture Workers
  - 7-99 Produce Inspectors (Agric.)
  - 8-11 Cabinetmakers
  - 8-12 Woodworking-machine operators
  - 8-34 Machine-tool operators
  - 8-35 Metal grinders, polishers and tool sharpeners
  - 8-43 Motor vehicle mechanics
  - 8-44 Aircraft engine mechanics
  - 8-49 Heavy Plant and Stationary Engine Mechanics
  - 8-51 Electrical fitters
  - 8-55 Electrical wiremen
  - 8-56 Telephone and telegraph installers
  - 8-57 Electric linemen and cable jointers
  - 8-60 Broadcasting station operators
  - 8-62 Cinema Projectionists
  - 8-71 Plumbers and pipe fitters
  - 8-72 Welders and flame-cutters
  - 8-74 Structural metal preparers and erectors
  - 9-01 Rubber and plastics product makers
  - 9-21 Composers and typesetter builders
  - 9-22 Printing pressmen
  - 9-26 Bookbinders
  - 9-27 Photographic darkroom workers
  - 9-31 Painters, construction
  - 9-51 Blockmakers
  - 9-54 Carpenters and joiners
  - 9-55 Plasterers and Blocklayers
  - 9-61 Power-generating machinery operators
  - 9-71 Dockers and freight handlers
  - 9-81 Riggers and cable splicers
  - 9-83 Crane and hoist operators
  - 9-85 Earth-moving and related machinery operators
  - 9-99 Other Labourers (including Grass Cutters)
APPENDIX M

INFORMATION SHEET FOR RESPONDENTS COMPLETING THE RSQ'S
INFORMATION ABOUT YOU (All this information will be kept confidential (no one else will see it)

NAME: ________________________________

OCCUPATION OR WORK ________________________________

EDUCATION:

CIRCLE THE HIGHEST YEAR OF PRIMARY SCHOOL YOU COMPLETED

STANDARD 1 2 3 4 5 6 7 8

CIRCLE THE HIGHEST YEAR OF SECONDARY SCHOOL YOU COMPLETED

FORM 1 2 3 4 5 6

DO YOU HAVE ANY FURTHER TRAINING, DIPLOMAS, DEGREES OR CERTIFICATES? IF SO PLEASE WRITE THEM IN THE SPACE BELOW:

DO YOU HAVE ANY CHILDREN IN THE HONIARA NEW SECONDARY SCHOOL?

(IF YOU DO PLEASE SAY IF THEY ARE BOYS OR GIRLS)

AIMS OF THE HONIARA NEW SECONDARY SCHOOL:

1. TO COMPLETE THE STUDENTS BASIC EDUCATION AFTER THE SIX YEARS OF PRIMARY SCHOOLING.
2. TO EQUIP THE STUDENT FOR YOUNG ADULT SITUATIONS AND RESPONSIBILITIES IN HONIARA.
3. TO PROVIDE A BASIS FOR TECHNICAL LEARNING, AND EMPLOYMENT TRAINING IN AGRICULTURE, TRADING OR INDUSTRY IN HONIARA.
4. TO DEVELOPE INTERESTS AND SKILLS WITH ROOTS IN THE CULTURAL HERITAGE OF THE SOLOMON ISLANDS.
5. TO PROVIDE THE STUDENT WITH CHANCES TO LEARN THINGS WHICH ARE USEFUL FOR LIVING IN HONIARA.

CHARACTERISTICS OF THE HONIARA NEW SECONDARY SCHOOL

1. THE SCHOOL IS LOCATED IN THE BUILDINGS WHICH USED TO BE THE GOVERNMENT PRIMARY SCHOOL IN HONIARA.
2. THE STUDENTS ARE DAY STUDENTS AND LIVE AT HOME WITH THEIR PARENTS OR RELATIVES.
3. THE STUDENTS HAVE COMPLETED STANDARD SIX IN HONIARA PRIMARY SCHOOLS.
4. THE NEW SECONDARY SCHOOL PROGRAM IS TWO YEARS LONG.
5. MOST OF THE STUDENTS ARE 12 OR 13 YEARS OLD.
6. THE NEW SECONDARY SCHOOL PROGRAM WILL NOT LEAD TO FURTHER TRAINING AT THE HONIARA TECHNICAL INSTITUTION OR THE TEACHERS COLLEGE.
APPENDIX N
CALCULATING A THEORETICAL DISTRIBUTION FOR THE REASONS ON THE RSQ, UNDER THE NULL HYPOTHESIS OF RANDOM RESPONSE
To understand the following derivation of the theoretical distribution of the RSQ score profile, under the null hypothesis of random response, the reader is advised to read the instructions to the RSQ given in Appendix K.

If we assume that the responses have been made randomly, then one third of the responses will be in the "should" column, one third of the responses will be in the "should not" column, and one third of the responses will be in the "null" column. For the sake of brevity, the "should" column will be called the "1's", the "should not" column will be called the "-1's", and the "null" column will be called the "0's".

Since there are three possible choices for each reason, then, for each judge, the probability of a reason receiving a "1" is 1/3. If there are "r" reasons, then each judge will have assigned r/3 of those reasons to the "1's" column, and the same number to the -1's column and the 0's column.

If there are n judges, then the total number of 1's received by each reason, will be n/3.

Each judge then picks one of the reasons assigned to the 1's column, and marks it as "most important" (this is also done at random). Since the judge has assigned r/3 reasons to the 1's column, then the probability of any one of those reasons being chosen as most important is 1(r/3)−1, which equals 3/r. (the reasons chosen as most important are scored +4)

Since there are n judges and, each reason has n/3 "1's" then:
the total number of times a reason is marked as most important = \( \frac{3}{r} \left( \frac{n}{3} \right) = \frac{n}{r} \)

For each judge, there are now \( \frac{r}{3} - 1 \) reasons left in the l's column. Therefore, the probability of one of these remaining reasons being marked as a "second most important" reason is \( \frac{1}{((r/3)-1)^{-1}} \) (the reasons chosen as second most important are scored as +3)

Over the n judges there are now \( \frac{n}{3} - \frac{n}{r} \) reasons left in the l's column. Therefore:

the total number of times a reason is marked as the second most important reason

\[
= \frac{n}{r}
\]

For each judge, there are now \( \frac{r}{3} - 2 \) reasons left in the l's column. Therefore the probability of one of these remaining reasons being marked as a "third most important" reason is \( \frac{1}{((r/3)-2)^{-1}} \) (the reasons chosen as third most important are scored as +2)

Over the n judges there are now \( \frac{n}{3} - 2\left( \frac{n}{r} \right) \) reasons left in the l's column. Therefore:

the total number of times a reason is marked as the third most important reason

\[
= \frac{n}{r}
\]
After marking the third most important reason, the judges stop selecting from the l's column. Therefore there are now \((n/3)-3(n/r)\) reasons left which have been marked in the l's column (these remaining l's are given a score of +1)

Exactly the same procedure can be carried out with the reasons marked in the −l's column, with the same results.

Therefore, for \(n\) judges and \(r\) reasons, the following frequencies can be expected for each reason on the RSQ:

<table>
<thead>
<tr>
<th>RATING</th>
<th>NUMBER OF TIMES EACH REASON WILL RECEIVE THIS RATING</th>
<th>PROPORTION OF RESPONSE FOR THIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>+4</td>
<td>(n/r)</td>
<td>(1/r)</td>
</tr>
<tr>
<td>+3</td>
<td>(n/r)</td>
<td>(1/r)</td>
</tr>
<tr>
<td>+2</td>
<td>(n/r)</td>
<td>(1/r)</td>
</tr>
<tr>
<td>+1</td>
<td>((n/3)-3(n/r))</td>
<td>((1/3)-(3/r))</td>
</tr>
<tr>
<td>0</td>
<td>(n/3)</td>
<td>(1/3)</td>
</tr>
<tr>
<td>−1</td>
<td>((n/3)-3(n/r))</td>
<td>((1/3)-(3/r))</td>
</tr>
<tr>
<td>−2</td>
<td>(n/r)</td>
<td>(1/r)</td>
</tr>
<tr>
<td>−3</td>
<td>(n/r)</td>
<td>(1/r)</td>
</tr>
<tr>
<td>−4</td>
<td>(n/r)</td>
<td>(1/r)</td>
</tr>
</tbody>
</table>