In Search of a Vocation: the Case for Vocational Training
in Papua New Guinea

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"Call to me and I will answer you 
and tell you great and unsearchable things you do not know"
Jeremiah 33:3

I dedicate this thesis to the Lord my God through Christ Jesus for all Papua New Guineans who believe in vocational training.
Certification of Authorship

I certify that apart from consulting my Supervisor, Supervisory Panel, other scholars and professionals and reference documents in the normal process of research and writing, this thesis is my own original piece of work.

Rona Nibeta Nadile

July 2001
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A Ph D thesis is a peak point of arrival at the last frontier of academia. My thesis is my literary journey of a lifetime – a journey starting from where once I thought that paddling to the end of the horizon meant falling over a sea cliff. I first went to kindergarten when I was about 10 years old. Ever since then I have wanted knowledge, and I have paid a heavy price all along this journey. Because of my background, my feeling of gratitude is profound and I want to acknowledge the many people who have contributed directly and indirectly, past and present, to the process of writing this thesis. I am indeed pleased and honoured to extend my gratitude to everyone who has assisted me throughout this literary journey.

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Abstract

In Search of a Vocation: the Case for Vocational Training in Papua New Guinea

This thesis was written using techniques of the historian in its survey of early attempts to educate and train Papua New Guineans in the practical skills that they could use in the cash economy. In the examination of present vocational training centres, the scholarly methods have been more those of sociologists and anthropologists. Personal observation and questionnaires were used to obtain data. The subject matter is obviously of interest to historians, educationists, training providers and current government policy makers. The thesis is therefore interdisciplinary: its coherence results from the subject matter and not from the discipline.

Through the examination of vocational centres, the thesis aims to add to long-standing debates in Papua New Guinea education: language of instruction, admission policies, gender equity, educating people for village life or to meet the needs of a modern cash economy, how to serve the needs of the uneducated and part educated.

As there are no readily available sources of information on vocational centres, a major task and achievement of the thesis was to record basic details about locations, staffing, students, courses, financing, security and community links. The material on the buildings, finances and student conditions and aspirations are revealing and disturbing, and the conclusions are obvious. There is a great need for better conditions, greater efficiencies and the centres need courses that meet student needs.

But the information gathered also showed that vocational training has great potential to provide skills development training for all school leavers, unemployed youth and adults; and for first and second chance learners.

Teachers are the key to the success of centre operations. However, the study has shown that the quality of teacher preparation needs to be improved both in general subjects and trades skills; and teachers require in-service courses to improve teaching methods and skills. The DoVET course is a good initiative but it will have to be supported and sustained when present donor support comes to an end. The dedication of some teachers, the optimism and cooperative spirit of students and the work of joint mission and government centres allows some hope.

This study also revealed why vocational centres have failed, particularly, to meet the aspirations of girls and young women. The women do not want to return to their villages. They want to be part of the modern world, but the curriculum is restrictive.
There are also significant questions about who is given access to the centres: simple tests of age, and formal education are not appropriate, and then there has to be decisions about whether married students, students with babies and ex-rascals are admitted.

A few centres are using their own discretion to deal with these issues, but there is no formal policy and no facilities in place to cater for those with special needs.

Several schemes have been tried to improve the centres and vocational training. These schemes are encouraging and increase the skills of school leavers. However, the problem with these schemes is their sustainability. When funds for these schemes run out or the term of limited projects end, the schemes cannot be continued, except with whatever skills and information has been acquired by those involved.

While centres lack resources including finances, there are also some large amounts of money going into centres for operations but accounting and management of funds need strengthening. Where funds are limited and uncertain, they must be managed efficiently.

Currently, there is a huge interest in the vocational training sector by international donor agencies in Papua New Guinea. This foreign support is a fresh sign of hope.

As this is a thesis concerned with the practical end of education and training, it is appropriate that it concludes with specific policy recommendations. These reinforce the scholarly conclusions.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>i</td>
</tr>
<tr>
<td>Dedication</td>
<td>ii</td>
</tr>
<tr>
<td>Certification of Authorship</td>
<td>iii</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>iv</td>
</tr>
<tr>
<td>Abstract</td>
<td>ix</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>xii</td>
</tr>
<tr>
<td>Diagrams</td>
<td>xiv</td>
</tr>
<tr>
<td>Tables</td>
<td>xv</td>
</tr>
<tr>
<td>Figures</td>
<td>xvi</td>
</tr>
<tr>
<td>Plates</td>
<td>xvii</td>
</tr>
<tr>
<td>Abbreviations and Acronyms</td>
<td>xix</td>
</tr>
<tr>
<td>Map of Study Sites</td>
<td>xx</td>
</tr>
<tr>
<td>Chapter One - Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.0 Equipping the Child to Fit into Society</td>
<td>1</td>
</tr>
<tr>
<td>1.1 The National Education System</td>
<td>3</td>
</tr>
<tr>
<td>1.2 Research Topic Defined</td>
<td>7</td>
</tr>
<tr>
<td>1.3 The Conceptual Framework</td>
<td>8</td>
</tr>
<tr>
<td>1.4 Statement of the Situation</td>
<td>9</td>
</tr>
<tr>
<td>1.5 Research Objectives</td>
<td>16</td>
</tr>
<tr>
<td>1.6 The Data</td>
<td>16</td>
</tr>
<tr>
<td>1.7 The Significance of the Study</td>
<td>18</td>
</tr>
<tr>
<td>1.8 Definition of Terms</td>
<td>19</td>
</tr>
<tr>
<td>1.9 Assumptions and Limitations</td>
<td>21</td>
</tr>
<tr>
<td>1.10 Structure of the Thesis</td>
<td>22</td>
</tr>
<tr>
<td>Chapter Two – Vocational Training and Education: Background</td>
<td>24</td>
</tr>
<tr>
<td>2.0 Vocational Training Defined</td>
<td>24</td>
</tr>
<tr>
<td>2.1 Historical Perspectives</td>
<td>24</td>
</tr>
<tr>
<td>2.2 Vocational Education and Training at the Cross – Roads</td>
<td>35</td>
</tr>
<tr>
<td>2.3 Papua New Guinea – Late 1800s to Late 1960s</td>
<td>38</td>
</tr>
<tr>
<td>2.4 Summary of Discussion</td>
<td>57</td>
</tr>
<tr>
<td>Chapter Three – Vocational Training: PNG Local History 1967 to Late 1990s</td>
<td>59</td>
</tr>
<tr>
<td>3.0 Introduction</td>
<td>59</td>
</tr>
<tr>
<td>3.1 The Transition</td>
<td>59</td>
</tr>
<tr>
<td>3.2 The Place of Vocational Training in the Education Structure</td>
<td>65</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>7.1.2 The South Pacific Region</td>
<td>183</td>
</tr>
<tr>
<td>7.1.3 Papua New Guinea (PNG)</td>
<td>183</td>
</tr>
<tr>
<td>7.1.4 Gradual Development</td>
<td>185</td>
</tr>
<tr>
<td>7.2 The Case Studies</td>
<td>190</td>
</tr>
<tr>
<td>7.3 What is the Policy</td>
<td>209</td>
</tr>
<tr>
<td>7.4 Vocational Education and Training and Human Needs</td>
<td>210</td>
</tr>
<tr>
<td>7.5 Summary of Discussion</td>
<td>210</td>
</tr>
<tr>
<td>Chapter Eight – Conclusion: Training and Education for a Vocation</td>
<td>214</td>
</tr>
<tr>
<td>8.0 Conclusion</td>
<td>214</td>
</tr>
<tr>
<td>8.1 Recommendations</td>
<td>220</td>
</tr>
<tr>
<td>8.1.1 Policy Statement</td>
<td>221</td>
</tr>
<tr>
<td>8.1.2 Restructure and Amalgamation</td>
<td>222</td>
</tr>
<tr>
<td>8.1.3 The Curriculum</td>
<td>223</td>
</tr>
<tr>
<td>8.1.4 Vocational Teacher Education</td>
<td>225</td>
</tr>
<tr>
<td>EPILOGUE</td>
<td>227</td>
</tr>
<tr>
<td>Bibliography</td>
<td>228</td>
</tr>
<tr>
<td>Appendices:</td>
<td>239</td>
</tr>
<tr>
<td>A: Questionnaire</td>
<td>239</td>
</tr>
<tr>
<td>B: Vocational Training - Chronological Data 1960 – 1976</td>
<td>242</td>
</tr>
<tr>
<td>C: Supporting Materials</td>
<td>244</td>
</tr>
<tr>
<td>D: List of Vocational Centres</td>
<td>246</td>
</tr>
<tr>
<td>E: Plates</td>
<td>250</td>
</tr>
<tr>
<td>F: The Seed of my Thesis</td>
<td>266</td>
</tr>
<tr>
<td>Diagram</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Diagram 1.1</td>
<td>The Education Reform Structure</td>
</tr>
<tr>
<td>Diagram 1.2</td>
<td>Structure of Vocational Education and Training Branch</td>
</tr>
<tr>
<td>Diagram 1.3</td>
<td>Maslow's Hierarchy of Human Needs</td>
</tr>
<tr>
<td>Diagram 1.4</td>
<td>Vicious Cycle of Unemployment</td>
</tr>
<tr>
<td>Diagram 8.1</td>
<td>A Suggested Structure for Amalgamation and Rationalisation of Vocational Centres</td>
</tr>
</tbody>
</table>
# Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Economic Activity of the Citizen Population 1980</td>
<td>10</td>
</tr>
<tr>
<td>1.2</td>
<td>The Unemployed – Urban Areas</td>
<td>11</td>
</tr>
<tr>
<td>1.3</td>
<td>Food Nutrients and their Functions</td>
<td>15</td>
</tr>
<tr>
<td>2.1</td>
<td>Distributing Enrolment in Technical and Vocational Education by Gender in Developing Countries of Asia Pacific Region 1965, 1970 and 1975</td>
<td>37</td>
</tr>
<tr>
<td>2.2</td>
<td>Indigenous Education Expenditure 1960 – 1965 (3)</td>
<td>53</td>
</tr>
<tr>
<td>2.3</td>
<td>Type of Schools and Enrolments 159-1965</td>
<td>54</td>
</tr>
<tr>
<td>3.1</td>
<td>Basic Data on Vocational Training</td>
<td>62</td>
</tr>
<tr>
<td>3.2</td>
<td>Number of Provincial Vocational Centres - 1992</td>
<td>65</td>
</tr>
<tr>
<td>6.1</td>
<td>Course Outline – Certificate in Teaching Trades and Agriculture</td>
<td>172</td>
</tr>
<tr>
<td>7.1</td>
<td>Number of Vocational Teachers</td>
<td>191</td>
</tr>
<tr>
<td>7.2</td>
<td>Teacher/Students Ratio</td>
<td>192</td>
</tr>
<tr>
<td>7.3</td>
<td>Quality of Buildings and Facilities</td>
<td>195</td>
</tr>
<tr>
<td>7.4</td>
<td>Example of a Vocational Centre Program for the Female Gender</td>
<td>197</td>
</tr>
<tr>
<td>7.5</td>
<td>Vocational Centre Finance</td>
<td>200</td>
</tr>
<tr>
<td>7.6</td>
<td>Number of Students at the Thirteen Vocational Centres</td>
<td>204</td>
</tr>
<tr>
<td>7.7</td>
<td>Vocational Training Policy Intentions</td>
<td>209</td>
</tr>
</tbody>
</table>
## Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>The Structure of Vocational Training System</td>
<td>66</td>
</tr>
<tr>
<td>5.1</td>
<td>Approach to Village Development</td>
<td>156</td>
</tr>
<tr>
<td>7.1</td>
<td>Breaking the Vicious Cycle of Unemployment</td>
<td>210</td>
</tr>
</tbody>
</table>
Plates

Plate No. 4.0 Badili: an old boat shed used as workshop (original building) ..................... 250
Plate No. 4.1 Badili: girls showing completed sewing crafts .............................................. 250
Plate No. 4.2 Badili: crowded staff house .......................................................................... 250
Plate No. 4.3 Badili: reclaimed water front – environmentally unhealthy .......................... 251
Plate No. 4.4 Koki: main entrance gate .............................................................................. 251
Plate No. 4.5 Koki: stairs to find main office ..................................................................... 251
Plate No. 4.6 Koki: garments on display .............................................................................. 252
Plate No. 4.7 Koki: matching colours and patterns – missed match! ................................. 252
Plate No. 4.8 Morata: Lions International Project ................................................................. 252
Plate No. 4.9 Morata: morning assembly ............................................................................. 253
Plate No. 4.10 Morata: teacher's house over panel beating workshop .............................. 253
Plate No. 4.11 Morata: mechanics workshop ....................................................................... 253
Plate No. 4.12 Limana: teachers at morning tea ................................................................. 254
Plate No. 4.13 Limana: students doing morning clean up ................................................... 254
Plate No. 4.14 Limana: ‘out-door’ students’ locker – hanging bilums ................................. 254
Plate No. 4.15 Limana: "I want to learn computer - but I want to do sewing too!" .......... 255
Plate No. 4.16 St Therese: trainees morning clean up session ............................................ 255
Plate No. 4.17 St Therese: a cookery lesson ..................................................................... 255
Plate No. 4.18 Basenenka: happy crowd of trainees ............................................................. 256
Plate No. 4.19 Basenenka: mechanics workshop – one car engine, main resource ......... 256
Plate No. 4.20 Basenenka: male ‘tin-shed’ dormitory ........................................................ 256
Plate No. 4.21 Basenenka: crowded bed in male dormitory – em i paspas- it's too crowded ................................................................. 257
Plate No. 4.22 Basenenka: female ‘tin-shed’ dormitory....................................................... 257
Plate No. 4.23 Basenenka: teacher's house ......................................................................... 257
Plate No. 4.24 Basenenka: poultry house – lacking in security ........................................ 258
Plate No. 4.25 Basenenka: female student dressed for singsing ........................................ 258
Plate No. 4.26 Maria Hilf: all female teachers ..................................................................... 258
Plate No. 4.27 Maria Hilf: female trainees ........................................................................... 259
Plate No. 4.28 Maria Hilf: inside female dormitory ............................................................. 259
Plate No. 4.29 Maria Hilf: students' kitchen - copper boilers for rice/kaukau, meat/fish and tea.................................................................................................................... 259
Plate No. 4.30 Maria Hilf: teachers' house with all facilities ................................................ 260
Plate No. 4.31 Maria Hilf: one of two security guards .......................................................... 260
Plate No. 4.32 Kamaliki Vocational Centre ................................................................. 260
Plate No. 4.33 Kamaliki: students' kitchen – rice and tinned fish for dinner ..............261
Plate No. 4.34 Kamaliki: tools donated by GTZ .........................................................261
Plate No. 4.35 Kamaliki: female students at front of home economics building ..........261
Plate No. 4.36 Kamaliki: inside female dormitory – bare, unpainted walls
    dressed with pretty bilums .....................................................................................262
Plate No. 4.37 Kamaliki: inside male dormitory – crowded rooms divided
    with clothes lines ....................................................................................................262
Plate No. 5.0 St Joseph's Vocational Centre .............................................................262
Plate No. 5.1 St Joseph's students' kitchen – fuelled by wood ....................................263
Plate No. 5.2 Malahang: transforming - new mechanics workshop ............................263
Plate No. 5.3 Malahang: transforming - new teachers' house .................................263
Plate No. 5.4 Komperi: female students .................................................................264
Plate No. 5.5 Komperi: illiterate student practising reading ......................................264
Plate No. 5.6 Komperi: display of handicrafts .........................................................264
Plate No. 5.7 Awande: teacher's house overgrown with grass ...............................265
Plate No. 5.8 Awande: trainees' damaged kitchen lying lifeless ...............................265
Plate No. 6.0 Home Economics Teacher Training Centre, Port Moresby In-Service
    College (PNG Education Institute) ........................................................................265
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>AusAID</td>
<td>Australian Assistance International Development</td>
</tr>
<tr>
<td>BOM</td>
<td>Board of Management</td>
</tr>
<tr>
<td>CDD</td>
<td>Curriculum Development Division</td>
</tr>
<tr>
<td>CDS</td>
<td>Community Development Scheme</td>
</tr>
<tr>
<td>CODE</td>
<td>College of Distance Education</td>
</tr>
<tr>
<td>DLE</td>
<td>Department of Labour and Employment</td>
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<tr>
<td>DOE</td>
<td>Department of Education</td>
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<tr>
<td>DoVET</td>
<td>Diploma of Vocational Education and Training</td>
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<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>GTZ</td>
<td>German Technical Corporation</td>
</tr>
<tr>
<td>IGD</td>
<td>Inspections and Guidance Division</td>
</tr>
<tr>
<td>MOMASE</td>
<td>Morobe Madang Sepik (Region)</td>
</tr>
<tr>
<td>NGI</td>
<td>New Guinea Islands (Region)</td>
</tr>
<tr>
<td>NDOE</td>
<td>National Department of Education</td>
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<tr>
<td>NATTB</td>
<td>National Apprenticeship Trade Testing Board</td>
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<tr>
<td>NTCS</td>
<td>National Training Council Secretariat</td>
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<tr>
<td>PETT</td>
<td>Pre-Employment Technical Training</td>
</tr>
<tr>
<td>PG</td>
<td>Parent Group</td>
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<tr>
<td>PNG</td>
<td>Papua New Guinea</td>
</tr>
<tr>
<td>PNGEI</td>
<td>Papua New Guinea Education Institute</td>
</tr>
<tr>
<td>PNFEO</td>
<td>Provincial Non-Formal Education Office</td>
</tr>
<tr>
<td>SALD</td>
<td>School Administration and Liaison Division</td>
</tr>
<tr>
<td>SRC</td>
<td>Students Representative Council</td>
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<tr>
<td>TAFE</td>
<td>Technical and Further Education</td>
</tr>
<tr>
<td>TED</td>
<td>Teacher Education Division</td>
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<tr>
<td>TSC</td>
<td>Teaching Service Commission</td>
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<tr>
<td>TVET</td>
<td>Technical Vocational Education and Training</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nation Development Program</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nation Education and Scientific Cultural Organization</td>
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<tr>
<td>UPNG</td>
<td>University of Papua New Guinea</td>
</tr>
<tr>
<td>VSS</td>
<td>Vocational Secondary School</td>
</tr>
<tr>
<td>VTC</td>
<td>Vocational Training Centre</td>
</tr>
<tr>
<td>YWCA</td>
<td>Young Women Christian Association</td>
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Chapter One

Introduction

1.0 Equipping the Child to Fit into Society

Camilla Wedgwood (1946), one of the early anthropologists who researched and wrote widely on indigenous education in both the Territory of Papua and New Guinea, was most concerned with equipping the child to fit society. Wedgwood raised important questions about educating the village people: questions about why the Colonial Administration wanted to educate the indigene, and what incentives the people may have or the Administration could give them to want to become educated. At the outset, she also tried to impress upon the Administration that it would be desirable to have a clear concept and a common understanding about education particularly for the indigenous population. Wedgwood (1946) proceeded to suggest that in the context of the traditional village society, education may be defined as "... the sum of all processes that equip a child for life in adult society" (Wedgwood 1946:4).

The sum of all the processes in the traditional adult society was indeed adequate for training a child for the particular environment and for that time. For example, a child was taught and trained to do things beginning from the simplest, such as scraping coconut, collecting firewood, minding younger siblings and cooking, to large and difficult tasks as in fishing and hunting, making gardens and canoes, to the more complex and risk taking for some, such as trading, marriage, magic and war with its armory and ammunition. Even though these processes may appear unorganised compared with the formal European setting, Wedgwood (1946:4) argued that:

Under purely Native conditions these processes...were carried on in the every-day contacts of the child within the family, with other children in the village and with adults outside the family circle. There was a certain amount of formal instruction in skills and in moral attitudes, but to a very great extent the child learnt from observation and practice, not from instruction, and his moral attitudes were determined by folk tales and aphorisms, by listening to gossip and to the comments passed by his elders on the conduct of others, and were reinforced by the pressure of public opinion. This largely informal education was adequate for fitting the child to become a member of the adult society of his small community.

These purely indigenous conditions have drastically changed in over a century of Western contact with the indigenous people. Many Papua New Guinean (PNG) children and young people today
lack the skills, knowledge and the ability to do traditional work. For example, how to fish properly or carry out successful hunting expeditions, let alone set an animal trap. Many young people lack the know-how to do things well in society as a means of survival. How to fish, garden, cook food, weave a mat or basket, climb a coconut tree, husk a coconut, make a cloth such as tapa cloth or make a grass skirt, make a canoe or design and build a house properly. PNG society moved away from, say, how to handle a basic digging stick: where to find a suitable tree owned by the appropriate person, how to cut it down and neaten the limb before sharpening, where to store it, what to use it for, for planting or harvesting?

Many young adult parents have difficulty raising and disciplining their children while traditional moral values are fast disappearing. For some, it is the lack of wisdom to know. Even if they knew some of the answers, those skills alone would not be very useful for effective living in today's society. The adult society and the environment of ideas and thought have changed, and so has the mode of learning, teaching and training the young. The location of teaching and learning has also shifted. Generally, parents and families and the haus-line\(^1\) have come to depend on many of the beliefs of learning, education and training, and the skills of the West. They have come to depend on the school system, the classroom teacher and literature. In the last decade or so, it has been the television and videos that are penetrating the homes like silent intruders. The impact of this self-learning is beyond the boundaries of this thesis. But these are very powerful media of instruction that proper use could bring beneficial learning to society. Nevertheless, the message is clear that no longer can the parents and the haus-line alone equip their sons and daughters for today's society. Wedgwood (1946:4) saw this even then:

Contact with the Whites has brought about considerable changes in the social and economic environment of the Natives, and also in their environment of ideas. The Natives themselves lost their bearings: they observe the works of the White man without understanding them; they observe the changes wrought in their own lives by the White man's government and the White man's economic activities without understanding the motives of what the White man has done - his ideas and standard of values. The Natives are of themselves no longer able to equip their own children for life in adult society, for they themselves do not understand that life. This can only be done with the help of the White man, and Native education is therefore one of the responsibilities of the White man's government.

But "Education for what?" Matane (1968:27) in PNG, Bugotu (1975) in Solomon Islands and Kaye (1984) in the South Pacific in general were asking the same basic question. But whatever was expected of education generally it has not been delivered (Swatridge 1989). With over 80% of the

\(^1\) 'Haus-line' in Tok Pisin language literally means 'house line' or family line or tribal/clan grouping.
population continuing to live in rural areas, there is certainly a dichotomy between traditional village and rural and modern urban life. Matane (1968:27) differentiated those who do not go to school as being better able to:

Build houses, know the best wood for building, make or mend fish traps and know how to make good gardens. They know when to plant, how to plant and how to space crops without academic learning or sitting for examinations. They learn these things not only by listening to their elders but also by doing.

These are village skills and are required of anyone living in that environment. However, it must be realized that no village young person - except the most eccentric - aspires to live a life requiring only those skills. This is apparent from the conversations with the vocational trainees as presented in chapter four of this thesis. Matane (1968) proceeded to suggest that primary and secondary schools should provide a complete education in them so that when school leavers cannot continue with further education, they could have at least been prepared for life. However, perhaps this kind of thinking was thought to result in a system that overloads the curriculum, as there has been no complete education for students exiting from any level in the last thirty years.

The role of equipping the indigenous Papua New Guinean child has been more or less reverted to the people, particularly to PNG teachers. Philip and Kelly (1974:277) made a strong plea that their research findings on 'Cognitive Development and the PNG Education System', "... can only be carried out successfully by Papua New Guinean nationals...." This is a great testimony from whence Wedgwood in 1946 claimed that the people cannot equip their children for lack of understanding of the civilized world. Philip and Kelly after nearly thirty years of study were convinced that Papua New Guineans should be the ones to educate their own people. Not only because they now understand the New World better, but also, as Philip and Kelly imply, the nationals now understand both worlds. On language choice and education, Burke (1974:272) once again sends the message that the decision should come from Papua New Guineans saying, "It is up to them to create a viable program...."

1.1 The National Education System

It took over twenty-five years before Papua New Guinea nationals took the first step towards creating a viable program which included a language choice and involved a majority of citizens in the decision making process. The first major education reform took place in 1994 when the national government's policy on human resources made development a priority, and a previous Education Sector Review in 1990-92 with the assistance from the United National Development...
Program (UNDP) and United Nation Education and Scientific Cultural Organization (UNESCO). The reform has been strategically put in place through a ten-year (1995-2004) PNG National Education Plan (Department of Education 1996). Diagram 1 shows the national education system drastically altered under the reform from the former post-independence system to what may be seen as PNG’s own home-grown education system (Department of Education 1996).

**Diagram 1.1: The Education Reform Structure**

Unlike the former system where pupils enrolled in grade one at seven years old, completed primary school in six years, lower secondary in four and upper secondary two years respectively; the reform has extended the years of primary school to nine years and expanded the system. The reform added an initial year referred to as Preparatory (P) with the initial general education and literacy skills taught in the local vernacular. Pupils enter the preparatory class at the age of five to six years old. The first three years are known as Elementary Preparatory, Elementary 1 and 2. These schools are located at the local community level including village and settlement sites. Primary school proper begins at Grade 3 where the pupil is first introduced to learning English and instructed in the English language. The child also has the first-time encounter with children in the wider community. Another feature of the reform at the primary level has been the addition of Grades 7 and 8, hence permitting children to remain in primary school longer (Department of Education 1996).

Secondary school begins at Grade 9 and ends in Grade 12 at the upper secondary. In the former system there were only five schools known as National High Schools with Grades 11 and 12 only.
These schools have been absorbed into the secondary sector and have added Grades 9 and 10 while selected existing provincial high schools in each province have been topped up with Grades 11 and 12. Diagram 1 also shows vocational training has been given two years duration and upgraded to lower secondary level. The entry points for vocational training are Grade 8 and PETT (Pre-Employment and Technical Training) at the end of Grade 10. Points of exits are provided for in Grades 8, 10, 12 and college and university graduates. Anyone who may have left the formal school system between Grades 8 and 12 or from vocational technical schools or adult education may return to the formal system through distance education in order to gain access to advanced studies (Department of Education 1996).

The national education system is controlled by the State including Church administered schools except for the Seventh Day Adventist, the International Education Agency and other private education and training institutions. However, all private training institutions by law must register with the National Training Council Secretariat\(^2\) (The National Training Council Act 1991). This means that the training programs, the facilities and the trainers go through assessment and accreditation procedures and ratifications by the Council before registration as a training provider. In order to remain current, the Secretariat staff carries out annual monitoring through inspections. The National Training Council Secretariat (NTCS) does not provide subsidies or any financial assistance to institutions registered.

The National Department of Education for instance, provides for school subsidies, appointment of teachers, teachers' salaries, curriculum development and inspections. Private schools registered under the National Department of Education come under the category known as the 'permitted schools' giving access to requests for inspections and requiring the schools to comply with government standards. Under the new Organic Law on Provincial and Local Level Government, provinces are required to develop their own provincial implementation plans. The provincial plans are intended to give effect to government human resource policies and plans as mandated through the National Department of Education. Generally, the provincial plans have been drawn up and certain components of the plan have been implemented such as the Elementary Schools, Primary and Teacher Education.

### 1.1.1 Technical Vocational - The Merged Division

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\(^2\) The National Training Council Secretariat (NTCS) is a statutory organization and comes under the Ministry of Labour and Employment.
As part of the education reform, Technical and Vocational Education and Training (TVET) have been combined and brought under one division supposedly for more than administrative purposes. Diagram 2 shows the Vocational Education and Training Branch as part of the merged division. The Assistant Secretary is responsible for both technical and vocational administration. The Superintendent of Curriculum, who is not shown directly under this diagram, is also responsible for both technical and vocational curriculum. The structure is such that both branches, while merging as one division, are functionally kept quite separate.

Diagram 1.2: Structure of Vocational Education and Training Branch

Source: Department of Education (1999)

There are seven technical colleges, including two business colleges, and one college that offers a tourism and hospitality course. The main aim of technical education and training is to meet the demands of commerce and industry. The business colleges conduct courses in secretarial, clerical, computing and typing, business accountancy and bookkeeping while the remaining technical colleges offer trade programs. The minimum admission requirement is the completion of Grade 10. However, Grade 12 applicants are acceptable. As technical colleges are considered part of the
higher education sector, students may receive national government scholarships (Natschol, now known as Tertiary Education Support [TES]). The maximum capacity that the technical and business colleges can accommodate is 1,800 students but currently they offer only 1,145 places. Out of the total number of places, 418 (40%) are reserved for female students. According to the Department of Education (1996), only 35% of females enroll, mostly in stenography, clerical and secretarial courses. Since 1986, localization began to show effects in the staffing of the colleges so that today approximately one in four lecturers are non-PNG.

Under the current education reform, the one year Pre-Employment Technical Training course will be changed and replaced by a two-year technical training certificate course as indicated in Diagram 1.1. The apprenticeship program and existing diploma and certificate courses will continue (Department of Education 1996). The vocational training sector under the recent reform will be discussed in detail in chapter seven as it is relevant to the major material throughout this thesis.

Today Papua New Guineans boldly take on the challenge those foreign academics, researchers and others so often insist that nationals should take the lead in, that is, educating and training their own people. The reform provides the most significant evidence of nationals stepping out and seizing the opportunity to design and plan an education system that is expected to reach more pupils who may in turn learn technical trade and professional skills - apart from general education and what they may know already of village skills and life in general.

However, the biggest challenge lies beyond the designing and planning of the education system reforms. The challenge is to implement the structural and curriculum reforms. The report on the State of Education in PNG (Department of Education 1999) is clear on this challenge. In all sectors of the reforms (i.e. from Elementary Education to the Upper Secondary), the capacity of officers and teachers to perform, to action and manage the reformed policies and programs is a real challenge. At the same time, the Organic Law on Provincial and Local-Level Government has considerable implication for the general education sector (Department of Education 1999).

1.2 Research Topic Defined

The thesis title "In Search of a Vocation: the Case for Vocational Training in Papua New Guinea" is intended to encompass three things:
i. It is about vocational training in Papua New Guinea, its history of successes and failures and its determination to provide, in many instances, the only option available to many of the unskilled and unemployed school leavers.

ii. It tells the stories of the lives and aspirations, and the future goals and expectations of both teachers and trainees in the vocational centres - the sites of the research.

iii. More broadly, the thesis depicts the plight of school leavers, unskilled, unemployed youth and adults seeking employment through the vocational training system as evidenced in the stories given in chapter four.

1.3 The Conceptual Framework

The premises set forth in this study are based on humanistic theories where unconditional positive regard is extended to all fellow humans. Humanists such as Abraham Maslow (1908-1970) and Carl Rogers (1902-1987) believed that each individual person has an inner drive to fulfil the best of her or his unique potential (Berger 1988:47). Critics argue that humanists are "blind to the many ways in which growth is stunted and deflected from the optimal route ... that they are more likely to formulate what is hoped for in human development ... ". Rather, "there is need to provide social reform, constructive discipline and direct guidance". Berger (1988:47 and 53) points out that, "... theories are not necessarily true ... and no one theory is adequate to describe the complexity and diversity of the human experience". Theories give bases for thought believed to be true and provide a framework in which ideas can be developed and practical solutions sought. Therefore, humanist theory in this regard is pursued as the basis of thought surrounding the issues on vocational training.

While Maslow and Rogers (Berger 1988) agree that in the twentieth century every individual person has a unique potential to fulfill, Maslow became world renowned for his theory on the hierarchy of human needs. Diagram 3 presents Maslow's theory that "... unless the basic physiological needs are satisfied, people are unable to fulfill their potential..." He believes that "... once basic survival needs are met, people can express their growth needs for love, self-esteem, and finally self-actualization" (Berger 1988:45 and 53). In essence, Maslow affirms that while the potential is there to excel in life, there are conditions that must be satisfied. He strongly advocates that human needs are hierarchical; from the basics of food, water, shelter and clothing to the more refined state of being in comfort and harmony within and without the human person.

3 'Self-actualization', according to Maslow is the peak experience of moments of great happiness, insight and harmony with nature, God and other fellow humans (Berger 1988).
In this regard, observations on the vocational training and education demonstrate that fulfilling potentials is achievable at the vocational training level, and the need to provide for the basic needs is the core-motivating factor. Observations will also be made on past to current practices of government policy at the vocational training centres, and to sound a possible warning with regard to increasing unemployment as presented in section 1.4. The unemployed are the people in desperate need of relevant, efficient and accessible education.

Diagram 1.3: Maslow's Hierarchy of Human Needs

Self-Actualization
Self-esteem
Love (belonging)
Security/Safety
Basic Physiological Needs (Food, water, air, clothes, shelter)


1.4 Statement of the Situation

Fifty-five years after Wedgwood's (1946) claims about the native being unable to equip the young to fit adult society they may not be far from the truth today. Western materialism, new technology, educational structures, new skills, abilities and knowledge have penetrated PNG traditional societies. As recorded in the introductory background, village skills are useful for survival in that particular environment. But the change in the environment of ideas, the demands of the cash economy and contemporary lifestyles today whether in the rural or urban areas, demands a change in the outlook on education and training.

The basic human needs as mentioned earlier appear to increase in quantity and quality, and the frequency of demand. For example, where will the next meal come from and will it include protein and vegetables. Or would there be enough room to accommodate everyone in the available shelter
each night? Yet the ways and means to acquire, to attain, to maintain and to sustain provisions for
the most basic needs seem to get harder to come by for the reasons revealed in the following text.

The 1990 PNG national census showed a total population of almost four million (3,761,954) people.
The census report claimed 70 percent of the population to be in the workforce, "... that is they
worked during the period4 or, if they did not, claimed they were available for work" (National
Statistical Office 1995:21). The largest working groups were those engaged in subsistence
gardening and fishing and those growing food for cash sales. These claimed nearly 84 percent of the
workforce, almost all of the rural population, which stands at 84.6 per cent. About 10.7 per cent
were reported to be in some form of wage employment, either in self-employment or in a business
enterprise or wage-paying job; and the remaining 5.3 per cent made up the overall rate of
unemployment (National Statistical Office 1995).

The 1980 national census showed quite a similar employment structure as indicated in Table 1.
Employment in the formal wage employment sector did not change much in the decade from 1980
to 1990, indicating only a 1 per cent increase from 9.7 per cent to 10.7 per cent in 1990. A similar
trend existed in the previous decade. According to the World Bank Staff (1983) and Bacchus
(1987), formal wage employment did not increase much during the 1970s so that by 1979 the
increase was less than 1.4 per cent, a little above the level in 1971.

Table 1.1: Economic Activity of the Citizen Population 1980

<table>
<thead>
<tr>
<th>Economic Sector</th>
<th>Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Formal sector wage employment</td>
<td>200,962</td>
<td>9.7</td>
</tr>
<tr>
<td>2. Informal money raising activities</td>
<td>532,414</td>
<td>25.7</td>
</tr>
<tr>
<td>(mainly farming and fishing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Subsistence farming and fishing and housekeeping</td>
<td>669,959</td>
<td>32.3</td>
</tr>
<tr>
<td>4. Not economically active (too old/young sick or students)</td>
<td>413,748</td>
<td>20.0</td>
</tr>
<tr>
<td>5. Other (including unemployed)</td>
<td>255,148</td>
<td>12.3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2,071,661</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Source: 1980 Census reported in the 1985-88 National Public Expenditure Plan.*
*Quoted in Bacchus (1987:40).*

The forecast by the National Planning Office (1981) for National Manpower Assessment 1979-1990 painted a rather grim picture for employment in the formal sector. The assessment indicated that the formal sector could not absorb the increasing numbers in the workforce, particularly school leavers from grades 6 and 7 to grade 10. The manpower assessment strongly suggested that for every person who finds paid employment, nine other job seekers would end up in subsistence/informal economic activities. Bacchus (1987) claimed that the subsistence farming and informal money raising activities are not expected to reduce either; indicating this sector would absorb more of the remaining job seekers. The fact is relevant skills have not been acquired and neither is there the desire to survive in the subsistence and informal sectors alone.

Unemployment on the other hand has markedly increased over the years. The 1990 National census reported an overall unemployment rate of about 5.3 per cent with an uneven age group distribution. For example, the report indicated that about 20 per cent of those unemployed in the mid-1990s were 10-19 year olds; but that unemployment appears to have declined for those in the 30-year old age group and over. It was also revealed that unemployment was more serious for those in the urban centres where 30 per cent of the workforce was unemployed and about 4.5 per cent in the rural areas. Table 2 shows urban unemployment as reported by the 1990 census (National Statistical Office 1995).

Table 1.2: The Unemployed - Urban Areas

<table>
<thead>
<tr>
<th>Age</th>
<th>In Labour Force Number</th>
<th>Unemployed Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-14</td>
<td>7,073</td>
<td>5,821</td>
<td>82</td>
</tr>
<tr>
<td>15-19</td>
<td>32,335</td>
<td>20,331</td>
<td>63</td>
</tr>
<tr>
<td>20-24</td>
<td>45,465</td>
<td>15,846</td>
<td>35</td>
</tr>
</tbody>
</table>


As can be seen from Table 2, urban youth aged between 10 and 14 show the highest rate of unemployment of 82 per cent – higher than it is for those in the age group of between 15 and 19 year olds with 63%. The young adults of between 20 and 24 years of age have the lowest rate of 35 per cent. That is not to say it is any better because this age group takes on more marriage/family responsibilities especially among the female gender population (National Statistical Office 1995).
The figures are however, misleading in that they underestimate unemployment in the rural areas. Many young men and women with little land available and no desire to be subsistence farmers are unemployed in rural areas but do not appear in the statistics as unemployed.

Why is unemployment such an important problem in Papua New Guinea? Unemployment is a contemporary PNG socio-political and economic phenomenon. The introduction of the cash economy has undoubtedly offered an alternative lifestyle from the rigid forms of traditional cultures. In considering the future of the Pacific Island nations which includes PNG, Cole (1993:vii) pointed out:

Like people everywhere, the inhabitants of the South Pacific island states now want more out of life than subsistence affluence. They want, and quite reasonably expect, what their neighbours in the industrial countries of the region enjoy. The island people of today want better standards of living, health, housing, education and leisure. These wants can only be met through improved incomes, regular employment and a move away from traditional village lifestyles.

Within this context in general, unemployment in Papua New Guinea stimulates urban migration (May and Skeldon 1977; Bacchus 1987; McMurray 1993; National Statistical Office 1995) where much of the wage employment is to be found for improved incomes and still others come in the hope "... to improve their education" (National Statistical Office 1995:13). But of course there is not enough employment in the urban centres. Shelter becomes an added problem as migrants seek employment hence the growth of squatter settlements with difficulties resulting from poverty compounded by increasing law and order problems, including 'rascalism' (Bacchus 1987:43). Shelter, as a basic need has become a real problem in urban centres especially in Port Moresby City.

Unemployment is a multi-faceted problem that requires consideration of a series of causes. May and Skeldon (1977:15) in discussing migration as having various levels of causation, draw a parallel with unemployment saying that in order to fully understand the concept of 'unemployment', and "... attitudes towards work..." then not only statistics on those seeking jobs ought to be established. To consider attitudes towards work shifts the concept of 'unemployment' to a personal level, where a series of causes need to be understood. The diagram below shows four key elements in a vicious cycle of unemployment at the personal level:
This diagram may appear rather simplistic but it illustrates clearly the interrelatedness and the magnitude of the problem, demonstrating the difficulty in attaining the national constitutional goal and education philosophy of integrated human development. Unemployment results in the lack of income leading to poverty where work skills training and education cannot be afforded, and finally the cycle repeats itself as the problem leads back to unemployment. Each repeat cycle worsens the situation.

What is the relationship between unemployment and education and training? The 1990 National Census (1995:24) concludes with this note:

"Education also has an important bearing on a person's ability to find work. Significantly, about 80 per cent of the unemployed had completed grade 6 or less of school education. More strikingly, about 35 per cent had received no education at all."

The age group of between 10 and 14 indicated in Table 2 is where the 80 per cent majority of unemployed grade 6 or less come from. This means that the majority of the unemployed had only primary general education without any skills required for the work place. The same is true for the unemployed in the 15 to 19 year age groups. The grades 10 to 12 school leavers would have had general secondary education but lack skills needed in the cash economy.

Given the rather gloomy picture of employment prospects with serious education implications, the National Manpower Assessment (1981:51) questioned "... the appropriateness of existing strategies in the education sector". While recognizing the political considerations for the provision of secondary schools, the report suggested an increased number of community school places and
improved tuition as a high social priority against further expansion of secondary schools. The report went further to suggest a more structured training and job experience particularly for middle-secondary school leavers to meet the country's vocational trade skill needs.

A decade later, the National Education Sector Review found that both in technical and vocational education and training, work skills were still, "... in short supply in Papua New Guinea, and the existing skilled and educated labour force is often comparatively inefficient and unproductive, largely as a result of poor quality of training received" (Department of Education 1991:96). The Honourable Dr J Waiko, MP and Minister for Education, in a ministerial statement on technical and vocational education to the PNG National Parliament in 1996 further stressed this limitation. His introductory statement said, "... today there is an increasing realization that the development of technical skills and knowledge is essential to the community in maintaining an expanding economy that will provide opportunities for employment and increased standards of living". "... Government is committed to developing its human resources and improving the overall skill base of the national workforce" (Waiko1996: 2). Along the same line of thought, the Australian International Development Assistance Bureau (AIDAB) now AusAID, in 1994 noted the general lack of skilled workers as a hindrance to improving the general economic environment, hence further restricting employment opportunities (AIDAB 1994).

Apart from the problems concerning skills and unemployment, there is also the issue of gender, particularly the education of women and girls. In 1991, the PNG Women and Development Sector Review conducted by the United Nations Development Program (Nakikus, Margaret et al, 1991), found that women in PNG have the highest rate of illiteracy, estimated at between 60-80 percent in the Asia and Pacific Regions. The rate of literacy among girls over 15 years of age at 35 per cent lags behind that of their male counterpart at 55 per cent. Overall, the literacy rate of PNG is 45 per cent, considered the lowest in the Asia Pacific. It was further revealed by the Review that the literacy rates are associated with enrolment rates at school. The female enrolment rate at secondary schools has been found to be consistently lower than 50 per cent and only 18 per cent at the universities (tertiary level).

It was also pointed out that at the tertiary level, general social facilities were inadequate and security was a problem and an issue with regards to women's education (Nakikus, Margaret et al, 1991). These issues are also raised in the case studies on vocational centres in chapter four. Although the thesis does not have a particular focus on gender, vocational education and training have been explored as a point of entry for both a first and/or second chance education and training for many young and unemployed women.
Another related issue that is not often considered in educational policy formulations is concerned with children's diet and indeed more generally on people's food. A National Nutrition Survey was carried out in 1982/83 on more than 30,000 children under the age of five (5) throughout PNG. The survey showed that 38 percent of the children were undernourished. They were mostly found in remote, isolated areas where income is very low and malaria is common (Earland et al. (1995).

About a decade later in 1993, the United Nations Education Scientific and Cultural Organization (UNESCO 1993) reported that on average, 38 per cent of Papua New Guinean children are malnourished. In several provinces however, the rate is as high as 60 per cent. "This puts Papua New Guinea among those nations with some of the worst malnutrition5 in the world - a cause for national alarm", the report says (UNESCO 1993:4). To what extent a lack of food, or lack of appropriate food, contributes to learning may be uncertain. However, it is true to say that food does not only fill the stomach and stops hunger, but food is also need to live and carry out all daily activities. "Malnourished school children do not have the energy to concentrate on their lessons, and are more likely to become sick and miss school" (Earland, et al., 1995:99).

All foods contain substances known as nutrients that service the various functions of the body. Table 1.3 shows the types of essential food nutrients and their functions.

Table 1.3: Food Nutrients and their Functions

<table>
<thead>
<tr>
<th>Food Nutrients</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbohydrates and Fats/Oils</td>
<td>Energy or fuel for work and exercise. Sometimes proteins provide energy when the body lacks energy as in cases of starvation.</td>
</tr>
<tr>
<td>Proteins</td>
<td>Provide substances for building and growing the body, and repairing cells as in the case of illness. Act as reserve energy source.</td>
</tr>
<tr>
<td>Vitamins and Minerals</td>
<td>Help regulate body processes and assist with proper tissue growth and repairs.</td>
</tr>
<tr>
<td>Dietary Fibre</td>
<td>Maintains normal bowel function and prevents constipation.</td>
</tr>
<tr>
<td>Water</td>
<td>Helps regulate body processes by preventing dehydration of cells and maintains constant body temperature. Along with dietary fibre, water also contributes to maintaining proper bowel activity and helps body eliminate waste matter.</td>
</tr>
</tbody>
</table>


5 The most common form of malnutrition found in Papua New Guinea is called Protein Energy Malnutrition (PEM). PEM is caused by not eating enough of the foods that provide the nutrients proteins and carbohydrates. PEM affects mostly young children and women of child bearing age. However, it also affects school-age children, the elderly and people with chronic illnesses such as malaria, tuberculosis, cancers and pneumonia. Infectious diseases easily attack those who are malnourished (Ritchie, Jean 1983; Tinker, Ann et al. 1994; Earland, Jane et al.1995).
In order to maintain normal body functions people need to eat a variety of foods every day to get an adequate supply of all the required nutrients (Earland et al. 1995). Children are particularly vulnerable to malnutrition and various types of infections such as pneumonia, malaria and tuberculosis. This is a rather frightening growing situation for PNG with related issues involving primary health care and training, which is beyond the scope of this thesis.

There is one issue commonly observed throughout the world particularly where subsistence economies are changing into cash economies, "Money is becoming more and more necessary as a means of reaching a better living standard" (Ritchie 1983:17). Those who fall into the cycle of unemployment means that individuals or families who are already poor become poorer and most often cannot provide even the basic necessities upon which good health and welfare depend (Ritchie 1983; Berger 1988; Earland et al. 1995). Indeed, in the context of the situation presented, Maslow's (Berger 1988) position on reaching higher human needs becomes more and more difficult to attain when basic needs are not satisfactorily met.

1.5 Research Objectives

This thesis is concerned with vocational education and training, and human welfare in Papua New Guinea. At the end of the writing, the thesis will have reasonably demonstrated that:

➢ The vocational training sector is the ideal place where the majority of school and non-school leavers, first and second chance learners, the illiterate and the unemployed may find a way to reach their full potential and satisfy at least their basic human needs even if it does not cover all the hierarchy of human needs.

➢ Decision-makers and implementers on vocational education and training need to speak one language on policy and priorities.

➢ With the increasing acceptance of advanced technology and the acknowledgement of vocational training by the PNG Government, and the increasing awareness and interest shown by donor agencies in skills development in PNG, the vocational training sector should no longer struggle for attention and resources in the new millennium.

1.6 The Data

This thesis uses the techniques of the historian in its survey of early attempts to educate Papua New Guineans in the practical skills that they can use in the cash economy. In the examination of present
vocational training centres, the scholarly methods have been more those of sociologists and anthropologists. I applied the methods of observation and questionnaires to collect the data. The subject matter is obviously of interest to educationists. This thesis is therefore inter-disciplinary: its coherence results from the subject matter and not from the discipline.

Although the notion of referral approach was not used directly as in Zifeak (1994), those ideas on access and method design were found sufficiently useful in designing the survey to compliment the techniques of the historian. For example, the framing of the approach to each of the centres was designed in a similar fashion in order to make realistic comparisons.

The general approach to interviewing was adopted from Paton (1990). Although the questions did not quite follow exactly a sequenced format, the adoption of a certain logical order in interviewing was helpful. For example, I began the interviews by introducing myself, explained what I was studying and why their response was important for vocational training, said how I was doing part of the study (by fieldwork), and asked if there were any conditions of confidentiality. Then I asked the questions I had and concluded by inviting the interviewees for additional comments, observations and/or suggestions. So within this inter-disciplinary approach there was "... considerable scope to pursue lines of inquiry which seemed particularly interesting and relevant" (Zefeak 1994:201).

A qualitative questionnaire (see Appendix A) was used as a guide to help me during the interviews. I showed the questionnaire to some people who were subsequently interviewed. I did not ask people to make written responses because some people would not have completed the questionnaire and posted them to me, so it was important that I obtained interviews from the centres visited. This is particularly so with the trainees, some of whose English comprehension is very limited as evidenced in chapter four. At the same time, the avoidance of postage between Port Moresby (PNG) and Canberra (Australia) also was a cost-saving measure.

The original selection of the centres was based on the idea that there should be regional representation of the Southern (Papua), Highlands, MOMASE (Morobe, Madang, Sepik) and the New Guinea Islands (NGI). However, the final selection was based on my finances, time, security and access to the centres, while at the same time allowing for some regional representation. The sites of the survey are indicated on the map on page vii. The New Guinea Islands were the only region not represented However, since the vocational system with its structure, curriculum and infrastructure, mode of operation and management is more or less the same throughout the country, the sites chosen are indeed representative of all vocational training centres in PNG.
Thirteen vocational centres were chosen (see full list of vocational centres in Appendix D). Of these, eight were studied in detail. The first visits to the centres were made in 1996 when only six out of the eight major study centres were briefly visited. A fresh questionnaire (Appendix A) was drawn up at the end of 1997. Copies of the questionnaire were mailed to the managers and manageresses of the centres and telephone interviews were conducted when the questionnaires were received. One of the centres was completely out of contact for months due to the law and order problems resulting in telephone lines being severed in one of the districts. At the same time there was tribal unrest causing roadblocks so that messages sent and responses received were further delayed. Eventually, I had to travel there personally to conduct the interviews.

The second visit to the centres was made in 1998 when I collected much needed additional first-hand material. A visit to the vocational centres for the purpose of research - requires a written request for permission from the researcher and written permission from the Secretary for Education. Even though I had been given permission previously, I had to reapply to request the inclusion of the new centres not included in the previous visit.

Plans for the number and categories of interviewees were modified when I arrived at the centres. For example, the plan to interview ten students representing the different courses in each centre was modified as I was more or less at the mercy of the centres' authorities. And it was often the case that whoever (both teachers and students) was available and willing to be interviewed I was happy to accept.

Apart from the formal interviews, I had the privilege of meeting and obtaining some information from the then Minister for Education, Science and Culture, Mr Muki Taranupi, and the Secretary for Education Mr Peter Baki. Also another Member of PNG National Parliament, Mr Ruing from the Western Highlands, expressed strong opinions on vocational training. Other people with whom discussions were held included Mr John Vilivili, the then Manager for vocational training, Mrs Asenatha Tugiau, the then Professional Assistant for vocational training, First Assistant Secretary Mr Renmark of the New Zealand High Commission on vocational training grants, the National Coordinator for GTZ Mr Boged Potang, and some parents and former vocational trainees who have since gained employment. In the earlier visit discussions were also held with the National Training Council Director Mr George Arua and a World Bank fellow Mr Bruce Matthews.

1.7 The Significance of the Study

The significance of this study lies in its emphasis on vocational education and training meeting
basic human needs. Education and training ought to be seen to first satisfy the basic human needs and in turn the same people should be able to serve the needs of the community and the nation, not the other way round. The visits and questionnaires have enabled me to present the reality of the centres as they now are. It is with this reality that any practical plans for improvement must begin.

1.8 Definition of Terms

There are terms used in this study that are in need of definition, particularly where there are key concepts underlying these terms.

1.8.1 Policy may mean a statement of intent or a statement of goals and objectives. For example, the policy of the PNG National Department of Education is to provide universal primary level education. Policy may also be defined as signifying goals and achievement such as, 'the policy of the PNG National Department of Education is to provide primary level education'. Public policy is government policy as opposed to private sector policy (Pressman and Wildavsky 1979; Department of Education 1995).

1.8.2 Program is defined as the governmental action or series of actions initiated to accomplish government policy. It is within a program that the conversion of policy into practice happens. The process of conversion may be referred to as implementation, which is defined in point 1.8.3 (Pressman and Wildavsky 1979).

1.8.3 Implementation: Pressman and Wildavsky (1979), in agreement with Webster's Dictionary (1989) and Roget's Thesaurus of English words and Phrases (1964), define implementation as to produce, to carry out, accomplish, fulfill, complete. Implementation in the context of the policy process then, is the execution of policy goals and objectives. It "... may be viewed as a process of interaction between the setting of goals and actions geared to achieving them" (Pressman and Wildavsky 1979:xxi), and the ability to carry out and accomplish the desired results.

1.8.4 Labour Market is where paid employment is found. It is "The market in which wages, salaries and conditions of employment are determined in the context of supply ... and the demand for labour" (Bannock et. al. 1991:248, Castle 1992). McGavin (1986) elaborated on the definition of this market as a social institution or system as the medium by which people work in economic activities and trading which generate more market activity resulting in "... the production and transfer of goods and services" (McGavin 1986:5). Apart from
government macro economic policies, whether or not an economy is growing depends entirely on the amount of economic productivity of the labour market.

1.8.5 Workforce or Labour Force: In the Papua New Guinea context, the workforce or labour force is the total number of persons from about 10 years old and over in the economy in paid work, self-employed, subsistence or being available for work.

1.8.6 Salaries and Wages: Salaries in the context of PNG, relate to class of work, e.g. a professional such as an accountant as opposed to a general worker, e.g. a bus driver. Salaries are planned for long term on an annual basis, whereas wages are designed for short term on a fortnightly or monthly basis, or whenever a certain job and period of work is completed. Rates of pay refer to hourly wages, e.g. K1.00 per hour (i.e. 5 hours = K5.00). In Papua New Guinea wages are mostly given in cash although in some instances wages may be given in cheque or kind such as provision of food and housing.

1.8.7 Employment is defined by the Australian Bureau of Statistics (1993) as the status of persons aged 15 and over being employed in the reference week, "... for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising employees, employers and self-employed persons); or ... without pay in a family business or on a farm (i.e. unpaid family helpers); or ... employees ... on paid leave; on leave without pay...; stood down without pay ...; on strike or locked out; on workers' compensation and expected to be returning to their job; or receiving wages or salaries while undertaking full-time study; or ... employers, self-employed persons or unpaid family helpers who had a job, business or farm, but were not at work" (Australian Bureau of Statistics 1993:46). Thus employment is being engaged in work activity for either some form of exchange or none at all. With reference to Papua New Guinea, in addition to all of the above, is self-employment in subsistence gardening for one's own consumption. Also in Papua New Guinea there is no reference week and the beginning employment age is five years younger (i.e. age 10) to that of the Australian.

1.8.8 Unemployment as defined by the Australian Bureau of Statistics (1993) refers to "Persons aged 15 and over who were not employed during the reference week..." (Australian Bureau of Statistics 1993:48). It is quite inadequate to define the state of being unemployed in Papua New Guinea. Unemployment in the context of PNG may be defined as persons from about 10 years of age and over either actively or passively looking for full-time or part-time employment all year round; or not looking for any employment at all but choosing to live off
their relatives and in-laws or wantoks. Being a developing country, PNG unemployment is more significant in the urban centres than the rural areas, which contain the majority of the population (Commission for Higher Education 1990).

1.8.9 Education and Training: Education is the process by which the mind and other faculties are cultivated and disciplined to produce change in the domains of cognitive (knowledge), psychomotor (skills) and affective (attitude). The distinction between education and training is less easily drawn because training involves the same process and all the human faculties, as does education. The major difference however, is that training is distinctively psychomotor oriented (Webster's Dictionary 1989). Training in the psychomotor domain is crucial to the human "...capacity to access and combine ability and knowledge in order to perform a task safely and competently" (Labour Research Centre 1991:23). Throughout this thesis however, the terms education and training will be used interchangeably.

1.8.10 Technical Education is defined as the branch of education that deals with specific trade skills, e.g. engineering, building construction, clerical, secretarial, catering and commerce. In PNG, technical education provides training for employment in industry. Throughout this thesis both technical and vocational education (see 1.8.11 below), will be sometimes used interchangeably. (National Department of Education 1991), but the context should demonstrate the difference.

1.8.11 Vocational Education: In terms of trade skills, vocational education is similar if not the same as technical education. In the PNG context, vocational education occupies an inferior position to that of technical education so it is defined more or less in terms of the level of training it offers rather than its function (National Department of Education 1991). Chapter two gives a more elaborate discussion on the definition of vocational training and education.

1.8.12 Trade Skills refer to skills pertaining to specific occupations, especially in industry (Webster's Dictionary 1989), such as engineering, draughting, tourism and hospitality, food processing, hairdressing and so on.

1.9 Assumptions and Limitation

Since the vocational training sector (except for the Seventh Day Adventist) comes under the same education system in PNG, it is assumed that vocational centres studied in this thesis are
representative of all other centres in the country. It is further assumed that the findings and the recommendations would be applicable to all vocational centres in the system. However, the thesis is limited in its scope, to focus specifically on vocational centres and vocational education and training. It does not explore related issues such as business entrepreneurship and industrialization, as well as informal and private sector training.

1.10 Structure of the Thesis

The thesis is arranged in the following order:

The introductory chapter provides the background to the research that underlies this thesis - beginning with the functional view of education and training. It describes some of the early attempts by the Colonial Administration at educating the indigenous Papua and New Guineans. Questions were raised then about the purpose of education leading to a discussion on unemployment as a result of education or no education. Chapter one further touches on the concerns for human needs as the basis of the conceptual framework. It explains the national education system, and provides a statement on the present situation. The research topic is defined, and the objectives, the method, the terms used, the significance of the study, and the assumptions and limitations of the thesis discussed.

Chapter two reviews the literature on vocational technical education and training giving a global historical perspective leading to the Asia Pacific and concluding with PNG. In PNG the review looks at both German New Guinea, (later the Mandated Territory) and Papua during the late 1800s to the late 1960s. Chapter three brings the thesis up-to-date on the PNG history of the vocational training system. Chapter four examines the condition of the first eight vocational centres in a case study format and presents the basic evidence. This constitutes the major reference material for the thesis. Chapter five expands on chapter four, providing material on the five remaining vocational centres not studied in detail. This chapter also gives information on other vocational schemes and related issues. Chapter six has been devoted to a presentation of material on vocational teacher education in PNG. It discusses the programs and awards available to trade skills and home economics instructors. The analysis of the research findings is drawn together in chapter seven, and the thesis concludes with policy and curriculum recommendations in the final chapter - eight.
Appendices of the questionnaire used, vocational training chronological data 1960 – 1976, supporting materials, list of vocational centres, plates of photographs and the 'seed' of my thesis follow after the bibliography. The seed of my thesis contains suggested policy on vocational training, standards of service delivery in tourism and hospitality, and a curriculum guide.

6 The 'seed' is a philosophical concept. I have produced three items (Appendix F): i. Policy, ii. Standards and iii. Curriculum. The seed is taken out from the thesis to grow it to bear more fruit. In essence, the thesis will have a multiplier effect.
Chapter Two

Vocational Training and Education: Background

2.0 'Vocational Training' Defined

The term 'vocation' implies a strong desire to work to do a particular job, especially one that involves serving other people, such as medicine or education or the priesthood (Webster’s Dictionary 1989:897).

Watkins and Burns (1980:11) define 'vocation' more widely as "... those activities pursued in a regular manner with the objective of earning an income". 'Vocational training' describes the learning and practice of the skills needed for a particular job or profession, such as teaching, typing, agricultural, communication and construction skills for carpentry. Derrick (1952:250) describes vocational training as; "... any form of training by means of which professional, technical or trade knowledge can be imparted or acquired, whether such training is given in schools or places of work". Lipsmeier and Schroeder (1994:6678) say, "In its broadest sense, 'vocational education' may be regarded as a process of communication and acquisition of those skills, areas of expertise, and procedures which are needed to fulfill job requirements in the occupational sector".

Vocational training is also defined in terms of its function. The Commonwealth of Australia Report to the General Assembly of the United Nations (1969:162) defined it as a "... supplementary training of Standard 6 school leavers..." and McKinnon (1971:7) who was then Director of Education in the Territory of PNG, defined vocational training as providing "... transitional training for students leaving primary schools...".

Although the objective of the supplementary and transitional training is not explicitly stated, it is clear from the various definitions given that 'vocational training' is the preparation for a particular job that serves people, society and industry with the view to earning an income.

2.1 Historical Perspectives

Vocational training is part of a larger system that is firmly rooted in Papua New Guinea's socio-economic, cultural, religious, historical and political context. In order to understand and appreciate
the current state of vocational centres and training and education, a historical review is useful. The review tries to give a general overview, which touches briefly on global and regional perspectives and then narrows the scope to PNG history. The history of PNG vocational training beginning from 1967 to the present will be described in the next chapter.

2.1.1 Overview of Global and Regional Perspectives

From a historical perspective, despite the intensification of industrial production after the 1730s, vocational education and training in many of the European countries was characterized by the curricula and norms of the specialized craft apprenticeship system. The task of actual training was entrusted to the private sector, particularly to individual firms and individual employers. Until much later into the nineteenth century, the role of governments in the European nations was mostly confined to prescribing the legal framework of training (Lipsmeier and Schroeder 1994). In northern Europe, during the late seventeenth and early eighteenth centuries people had already begun discourses on the value of education in real life. The writings of John Locke of England and Jean Jacques Rousseau of Geneva argued that knowledge learned should be relevant to real life. Followers of Rousseau went on and propagated his ideas though the Catholic Church refrained from supporting such doctrine (Bowen 1994). At this stage education was no longer the prerogative of just the wealthy elite. As formal education progressed in the eighteenth century, accompanied by an increase in private education institutes, practical skill curricula began to take shape.

One wonders why Locke and Rousseau argued that knowledge should be useful in real life? The notion of work as a social phenomenon goes deep in history. This thesis is limited in scope and will not go into detail on attitudes to work, but indeed how people have regarded 'work' itself throughout the ages has changed greatly. In the medieval period, Christianity gave new importance to all forms of work performed by hand, and work was accorded equal status with prayer (Lipsmeier and Schroeder 1994). The Bible tells us in James chapter three and verses 14 to 17 that faith must be matched with deeds so that "faith by itself, if it is not accompanied by action, is dead" (James 3:14-17). Prayer in this regard is the action. And the Renaissance revived classical antiquity's notion of the value of work in developing human talent. With the rise of Protestantism, the concept of work as man's natural destiny then reached a new level of increased social significance. The Enlightenment brought the final step to the secularization of work. In this period many educated Europeans divested all pretence of religious and social contexts: work was now enlisted under the banner of reason. Indeed 'work' was human activity in which science and technology could be employed to free humanity from its dependence on nature (Lipsmeier and Schroeder 1994).
This summary of notions of education and the value of work link us to that very distant past. The concept of education and particularly practical education, and how it is used in doing work, seem to have remained fairly constant. What has changed greatly, as evidenced by numerous documents from the industrial revolution of the middle of the eighteenth and early nineteenth centuries, is the mechanization of work and the monetary value placed upon work. The concentration of capital equipment which was greater in cost but more efficient in operation resulted in substantial advances, not only in agricultural output, but even more in textiles, food processing, transport, heavy industry, and sophisticated processes in metalworking, chemicals and electronics - thus increasing trade and bringing about healthy economic growth (Hughes 1968).

What was in Great Britain and Europe spread throughout the world. But the mechanization of work requires more than just raw materials and capital equipment. Education and training became a significant part of work. Not only new methods, procedures and handling of new equipment had to be learned, but also children no longer automatically took up their fathers' occupations. The apprenticeship system could no longer remain the only way to acquire skills for employment. People want jobs, they want to work but at the same time they need schooling, they need education and training to learn trades and practical skills to meet occupational requirements. There is high expectation on the private sector, the industries, to provide training but still governments shoulder much of the responsibility for education and training.

Prior to World War II, vocational and technical education and training were more or less unknown to "... many administrators and even educators..." throughout the world (Warren 1967:13). Yet a nation's economic well-being, its standard of living, its potential for growth and development, and security - all depend very much on the efficiency of its vocational and technical education and training system, and how much support in terms of financing a government is willing and able to devote to this sector. Indeed this sector may not be the only factor in a nation's economic growth and well-being, but it ought to be recognized that it is an essential component. For people all over the world are living in a material world that requires certain instruments, transport, food and textiles, chemicals and electronics that came about as a result of technological developments (Warren 1967).

In the early 1960s, UNESCO produced several reports that provide global perspectives on education and vocational technical education such as the World Survey of Education in 1961; Technical and Vocational Education Recommendations by UNESCO and the International Labor Organization in 1964; United Nations Conference of Science and Technology for the Benefit of Less Developed Areas in 1963; Records of the General Conference in 1962; and the Geneva Conference of
UNESCO in 1962. This showed a significant interest in vocational and technical education particularly after the Second World War. The report in 1967 cited an earlier recommendation adopted at the General Conference showing a global acknowledgment of technical and vocational education:

Technical and vocational education should be an integral part of an over-all system of education and, as such, due consideration should be given to its cultural content. It should do more than train an individual for a given occupation by providing the persons concerned with the necessary skills and theoretical knowledge; it should also, in conjunction with general education, provide for the development of personality and character and foster the capacity for understanding, judgment, self-expression and adaptation to varying environments. To this end, the cultural component of technical and vocational education should be set at such a level that the inevitable specialization in technical and vocational education does not stifle broader interests (Warren 1967:14).

The 1967 report presented a comparative study of ten different countries: Czechoslovakia, France, Federal Republic of Germany, Italy, The Netherlands, Sweden, the former Union of Soviet Socialist Republics, United Kingdom, United States of America and the former Yugoslavia. This study shows that each industrialized country has its own unique education system shaped by its political, socio-economic, religious and cultural histories. Yet the numerous education reforms that have been legislated and implemented indicated several common trends. Those important to this review are:

- The integration of vocational education into the general secondary education system has been increasingly emphasized since 1945
- Post-school full-time education of a vocational character is expanding rapidly
- Full-time or part-time courses for higher-technician qualifications show the most rapid development in most countries
- Part-time study, night classes and correspondence courses have become an essential 'second way' of obtaining education after leaving school, particularly for technically skilled workers
Increasing emphasis is being placed on 'liberal studies' as a necessary complement to purely technical studies. Learning a foreign language, for instance, plays an important role in the prospects of skilled workers crossing national boarders.

There is widespread and increasing co-operation between industry and education. The most developed systems contain training courses that are housed jointly on industrial premises or commercial offices and within vocational education establishments. Numerous vocational training programs are found on premises of industries but subsidized by government.

The techniques of teaching and examination are slowly being adapted to the different conditions of mass education, as opposed to the education of an elite in the older exclusive system.

The pedagogical sciences concerned with vocational education are still young but special training establishments for teachers are being founded in greater numbers (Warren 1967:174-176).

The report concludes that almost all the countries described in the study have evolved their systems of technical and vocational education concurrently, even if slowly, with their general and economic growth. The history of their efforts has indeed been spread over centuries unlike in the Third World that is faced with an even greater task in a shorter span of history. Even though technology has always crossed national boundaries more easily than political, spiritual and cultural ideas, the report cautioned that technical and vocational systems are essentially indigenous and cannot necessarily be transplanted or exported with any guarantee of success. This is particularly so in the shift from industrialized nations to the Third World where a whole new system has to be established with buildings, training or borrowed staff, suitable students with adequate previous education, necessary textbooks and equipment, curricula and determinants of levels of qualification (Warren 1967).

In 1980, UNESCO provided another report on technical and vocational education. This report focused on Asia and the Oceania region. The countries involved are listed as: Afghanistan, Australia, Bangladesh, Burma, China, India, Indonesia, Japan, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Singapore, Socialist Republic of Vietnam, Sri Lanka, Thailand and Union of Soviet Socialist Republic. The report showed that 15 years after World War II, particularly in the 1960s, there was rapid introduction of technical and vocational education, often on a 'crash' basis, in an attempt to meet urgent and immediate social and economic needs. This initial push in the expansion of technical and vocational education is reflected throughout the individual country reports in the period from 1965 to the 1970s (UNESCO 1980).
The 1980 report is based on individual country reviews and evaluations on programs initiated in the last two decades, previous to the time of the report in view of current realities of socio-economic and employment situations. The results of the reviews show shortfalls in reaching stated objectives. Weaknesses in basic data on human resources have been highlighted but the report has a note of optimism for the future of technical and vocational education in the region. Policies and plans, curricula and teacher education as well as productive work issues have been prominently featured. Four of the more pressing issues were:

- Unemployment - particularly in the 18-30 year age group - and consequent social dislocation and economic waste were serious problems. The report suggests that this was due largely to the failure of the modern sector development "... to provide employment in sufficient quantities in proportion to the growth of the potential workforce" (UNESCO 1980:xiii)

- The relationship of education/training and production/practical work, that is, the relationship between the education system and the country's economic production systems

- The expansion of opportunities to rural and other disadvantaged communities, with the dual purpose of community development and increased productivity, to support both social and economic growth; and

- The effectiveness of technical and vocational education systems, in terms of planning and provision of appropriate courses, quality of teachers, curriculum development, and evaluation techniques (UNESCO 1980:xxiii)

There were also specific problems noted such as:

- An increasing number of young unemployed and under-employed workers, and handicapped and other disadvantaged groups who should be provided with technical and vocational education

- Scarcity of work for graduating students

- Lack of co-ordination between government, private technical and vocational institutions and between institutions and industry
• Shortage of experienced, qualified teachers, and recruitment and retention difficulties

• Insufficient co-ordination between general education, technical and vocational education

• Inadequacy of self-paced or self-instructional learning resources and locally-relevant textbooks

• Difficulty in keeping courses up-to-date so that the needs of industry could be met quickly in a time of rapid technological, economic and social change

• Difficulty of devising a system, which is national in scope and with uniformity of qualifications, but is also sufficiently flexible to meet local needs; and

• Shortage of buildings, equipment and maintenance problems, in particular a need for low-cost scientific and technical equipment made from locally available materials (UNESCO 1980:xxiii-xxiv)

The emphasis on the issue of productive or practical work added new dimensions to the programs. These are seen in the following:

• Appropriate choice of productive work on the basis of its value in the learning process, so that competencies developed inside the institution can be integrated with the realities of the work place and vice versa

• Selection and training of teachers and instructors capable of integrating coherently cognitive learning and productive work, through convergence of appropriate task analysis

• Planning and organizing mechanisms and infrastructures that operate in the interface between industry and the teaching institution to relate productive work to technical and vocational education

• Evaluation of the effectiveness of the two forms of learning, in the institution and in the work place, and provision of remedial measures in both spheres of learning

• Accessibility of suitable work places related to the skill requirements of the learners; and
• Reluctance of industrial enterprises to provide meaningful works experience for learners

(UNESCO 1980:xxiv)

In the same issue of the Bulletin, a reprint of the Recommendations3 of the Regional Seminar on Technical and Vocational Education in Asia and Oceania held in Singapore from 20-27 November 1979 was added. The recommendations set out a framework for action at the national and regional levels in support of reforms in technical and vocational education. The main feature of these recommendations was 'productive work' in relation to the learning process and its relevance to rural development. Hence the regional seminar emphasized productive or practical work to be integrated into curriculum development, staff development, development of learning resources, planning and organization, research and development. Technical and vocational education in rural areas was especially recognized and separate recommendations were made though much of the same issues were covered.

Early this decade the World Bank (1991 and 1992) undertook two other studies. The first looked at vocational and technical education and training in developing countries, and the second was a comparative study of the cost and financing of education in Asia, which included Papua New Guinea (PNG). The study on cost and financing revealed that the financing of education in PNG was biased towards higher education at the expense of primary and particularly vocational education, which did not get a mention at all. Yet the average school grade attainment in PNG was similar to that of countries such as Bangladesh, Bhutan, India and Nepal. Scores ranged from less than grade 5, to more than grade 9 in Korea, Malaysia, Philippines and Sri Lanka. The study concluded with policy options and challenges, and priorities for future research (World Bank 1992).

The study in 1991 was based on the evidence of a book entitled, "Skills Training for Productivity: Vocation Education and Training in Developing Countries", by authors John Middleton, Adrian Ziderman, and Arvil Van Adams, which was about to be published at the time the report was written. This report points out certain problematic areas such as, high capital and operating costs, lack of qualified teachers, under-enrolment in some situations and low government priority. The curriculum for this sector of training is also seen as being rather poorly designed with weak links to the local labour markets. The report concludes with lists of several implications for the World Bank. Included are two specific points that government should consider:

3 For full text of recommendations, refer to Section three, 'Aspects of Technical and Vocational Education in the Region of Asia and Oceania, including Recommendations of the Regional Seminar on Technical and Vocational Education in Asia and Oceania, Singapore, November 1979, page 303-314'.
• Finance part of a longer-term investment and institutional development program that supports a clear strategy for an evolving government role in training; and

• Seek to mobilize support from other international donors within an acceptable policy framework (World Bank 1991:71)

2.1.2 Vocational Training in the South Pacific Region

"The sparse literature..." (Austin 1978:vii) on vocational training in the South Pacific would seem to suggest that there is either a lack of interest in this sector of educational development, or that vocational training has been indigenised and confined to each developing island state. The latter would seem more to be the case. Two earlier studies done under the auspices of the South Pacific Commission were by Derrick (1952) and Harlow (1953). The South Pacific Commission is an advisory and consultative body established by the Governments of Australia, New Zealand, United Kingdom, France, the Netherlands and the United States of America. An agreement was signed in Canberra on 6 February 1947 and ratified on 29 July 1948 by the six governments concerned with the administration on the island territories. In 1951 a further agreement was signed at the Commission's headquarters in New Caledonia, and Guam and the United States' Trust Territories were added to the Commission (Derrick 1952).

The main purpose of the Commission is to suggest to the member governments policies to promote the island peoples' health, and economic and social well-being. To find the best means of promotion of these matters, the Commission had two auxiliary bodies, the Research Council and the South Pacific Conference. The Research Council met once a year and its first meeting was held in May 1949. Apart from the particular concerns of the member governments of the Commission, the island states were in urgent need of technical and professional training not only for economic development, but also because of the effects of the recent war in the Pacific accompanied by rapid social and cultural change (Derrick 1952).

It is against this backdrop that Derrick (1952: viii) studied vocational training in the South Pacific. The brief given by the Research Council was:

The collection and dissemination of information on technical and professional training of Islanders in various fields such as health, education and technical skills, and an examination of the possibilities of further developing centralized training institutions for island peoples.
This study included PNG, which will be considered at point 2.3. Vocational training in each island territory under the colonial names of the time such as New Hebrides (now Vanuatu), the British Solomon Islands Protectorate (now Solomon Islands) and the Netherlands New Guinea (Now Irian Jaya) were described comprehensively. The findings show once again, the need for instructor training, admission criteria and selection of studies, curriculum design, equipment, financing and institutions and facilities. Among the chief recommendations, the study strongly proposed that a central training institute be established in the region with sub-regional centres. It was further submitted that Suva in Fiji be the location of the central institutions to serve the region as a whole in vocational training. Fiji had well-established lines of sea and air communications, and facilities for practical work were already in existence in Suva.

The second study by Harlow (1953) was soon after Derrick (1952) to follow up especially the recommendation to build a centralized regional institution. It seems Derrick (1952) had a dream, a vision for a bigger and better Pacific and especially for training professionals than the Special Committee of the Commission and Harlow (1953) could accept. Citing the view of the Special Committee, Harlow (1953:1) argued that:

Any consideration of an institution calculated to give professional training at the highest levels, more particularly that form of training and education usually undertaken by Universities and University Colleges of the British type, must, in our view, be left for later consideration. It would be a mistake, at this juncture, to regard the proposed Central Institution as such a college in embryo. To do so might well have the effect of obscuring from the outset the functions, which at present a Central Institution, can best perform.

Harlow (1953) further argued that any consideration of establishing a University of the South Pacific and the provision of technical education at a professional level ought to be treated as separate issues. The Special Committee however proposed to set up an initial centre in Fiji as a prototype along the lines of Derrick's (1952) conception of a Central Institution, but not at a university college level. This, it was hoped, would assist the many island governments in stimulating local development. The Special Committee further strongly recommended the appointment of Dr F.J. Harlow, M.B.E., B. Sc., Ph.D., the author of the second report, to draw up a detailed plan for the establishment of the Central Institution. Dr Harlow was formerly Principal of the Chelsea Polytechnic in London and had carried out similar undertakings in Africa, hence was considered a most suitable candidate. Derrick's other recommendations, including on teachers' training college, were considered best left to the various territorial administrations.
The Central Institution did become a reality and many South Pacific islanders have been trained there especially in Home Economics and Community Development. One of the students was Mrs Kikising Salley (ne'e Saki), first Papua New Guinean woman lecturer in Home Economics at the then Goroka Teachers' College during the early 1970s. Again this thesis is limited in scope and cannot venture into tracing other Papua New Guinea graduates, both government and the mission, who have been through the training institutions in Suva, Fiji. However, it is noted that PNG had been part of the early developments of education and training at the vocational level in the Pacific Region.

A seminar on 'The Development, Implementation and Coordination of Non-Formal Education' was held at the National Sports Institute in Goroka, PNG, in 1986. The seminar attracted 150 people from around the Pacific Region. In his presentation, the then Secretary for Education, Mr Geno Roakeina (1986:5), excluded vocational centres from his paper stating, "... they are both formal and non-formal". Of the 25 papers, there were only two presented on vocational training, otherwise much of the presentation and discussion focussed on other forms of adult education. What was clear though, was the move towards placing vocational training within the non-formal education (NFE) sector in the Pacific Rim. The most recent study by Rodney Cole (1996) confirmed this positioning of vocational training as non-formal education. Weeks (1987) earlier suggested that under administrative changes in PNG, NFE would disappear and vocational training would be returned to formal education arrangements. The curriculum has not changed much, in that trade skills, home economics and agriculture remain major components of training. The islands states however, are replacing 'vocational education and training' with a variety of different names such as 'Rural Training Centres' as in Solomon Islands and Vanuatu, and 'Fiji's National Youth Scheme' (Cole 1996).

If the evidence of these studies is anything to go by, what seems to have been developing and spreading throughout the Pacific is a 'whole new energy' released into the technical and learning arena, found in the 'non-formal education' sector. The various definitions presented in the Research Monograph No. 6 by Hungkunto and Tips (1986), Coombs and Ahmed (1974), Roakeina (1987), Meleisea (1987) and Coles (1996) speak about the non-formal education experiences of the South Pacific. Indeed, non-formal education is something conducted outside the formal education system but the two are not in competition with each other. The fact that non-formal education can happen anywhere with any size group directed by anyone with the resources of a teacher/trainer makes this sector the most flexible strategic option to reach the masses in education.
We may even be seeing the 'end wave' of the industrial revolution washed up onto the Pacific shores, bringing with it educational tools to train people and so enabling them to generate income. The skills, abilities and knowledge in the human resources that seem to have been buried in the ocean-bed for centuries must be brought forth and cultivated. And if the governments of the island states have no real vision and direction, the people are going out in their communities through non-formal education and doing it their way.

There are however, several problems associated with non-formal education. Hungkuntod and Tips (1986) listed these problems. All are important but the three most important that may have direct application to the Pacific are in the area of 'structure, co-ordination and its relationship to national development.' This is where vocational education appears to be misunderstood and perhaps confused in its position in the education system (Roakeina 1987).

2.2 Vocational Education and Training at the Cross-Roads

School leaver unemployment is a worldwide problem. Governments and industries are not meeting student expectations of education; and people in general are raising questions as to the value of education in contemporary societies the world over. As youth unemployment increases, questions are also raised about the roles and responsibilities of the young people. These expectations and concerns regarding education and youth responsibilities were clearly demonstrated in an address given at a seminar on Economic Development of Australia in 1994. Ray Costello⁴ argued at the seminar that most of the responsibilities that school leavers are expected to accept in society today have changed.

Family structures and gender roles have changed; the demands of citizenship are more complex, and no area is changing more profoundly than the role that today's students are likely to play in their working lives (Costello 1994:40).

Yet educators, according to Costello, jealously guard the idea that education should continue to give students "... a broad and balanced general education" (Costello 1994:40). This, Costello emphasized, is a narrow view and less relevant to the demands that society places on its children. Costello (1994) submits that industry seeks a redefinition of the thinking behind general education that should correspond with the expectations of society on school leavers.

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⁴ Mr Ray Costello is the Assistant Director of the Business Council of Australia. For full details on the address see 'Links Between General and Vocational Education' in the Business Council Bulletin No. 113, page 40-41, October 1994.
Fourteen years before the address by Costello, the teachers at the Colombo Plan Staff College (1980) reported that conservative views on education continued to persist at a time when technology was advancing and demands were changing. The Staff College pointed out that general education, whether or not it was relevant to the needs of the present society, "...continues to exert a major influence on educational policy" (Staff of the Colombo Plan Staff College 1980:265). Costello (1994) and the Staff of the Colombo Plan Staff College (1980) agreed that education and its curricula needed to give it "...a more contemporary expression" (Costello 1994:40).

Heidenheimer (1993) added to the concept of changing demands by opening up discussion on an international perspective on educational policies, which were once pursued as the prerogative of domestic policy. This domestic policy arena no longer holds as more and more goods and services, as well as education and training capabilities, become internationalized and transfers across national boarders become easier. Costello (1994) shares Heidenheimer's (1993) views but goes further to describe the characteristics of the demands based on two fundamental elements, i.) the maintenance of a high standard of living and, ii.) competition in the international markets. Costello (1994) argues that general education needs to contain a "...balance between intellectual development and practical competence..." (Costello 1994:41), and not just a balance of the various disciplines. This is where technical and vocational education and general education are linked. But again that is not where the link ends. To make education practical means to make it relevant and applicable to the contemporary demands of societies. Although the public sector demands the same, much of the changing demands about the practical expression of education and training are made by the private sector, particularly the industries where it is presumed the jobs are.

The arguments put forward to link general education with technical education by Costello (1994), the Colombo Plan Staff College (1980) and Heidenheimer (1993) are of course not new. The link between general education, technical/vocational education and employment has been in existence for centuries but it was after the Second World War that it became more generally established in government policy. At the end of the war, there was a great need for reconstruction by many governments involved in the war effort. The workers on the reconstruction sites mostly needed trade skills, hence the formalization of the link with industry.

Australia stimulated by Britain's Education Act of 1944, introduced changes in technical and further education with each of the States and Territories taking up slightly different variations (King 1977). According to the Bulletin of the UNESCO Regional Office for Education in Asia and Oceania (1980), the 1960s saw a rapid introduction of technical and vocational education and training in the Pacific Region in an attempt to meet immediate social and economic needs.
Table 2.1: Distribution of Enrolment in Technical and Vocational Education
By Gender in Developing Countries of the Asia Pacific Region
1965, 1970 and 1975

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Male (Percentage)</th>
<th>Female (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>100.0</td>
<td>73.3</td>
<td>26.7</td>
</tr>
<tr>
<td>1970</td>
<td>100.0</td>
<td>68.9</td>
<td>31.1</td>
</tr>
<tr>
<td>1975</td>
<td>100.0</td>
<td>67.9</td>
<td>32.1</td>
</tr>
</tbody>
</table>


Many of the Asian countries in the Asia Pacific Region have made concerted efforts in the technical and vocational levels of education.

This is illustrated in Table 2.1, which shows a general increase in enrolment in technical and vocational education in the region especially among the developing countries. The general increase in the female intake is apparent in this period when women were more vibrant in their search for employment, coinciding with course offerings that attracted women. These courses include home economics or domestic science, commerce and secretarial studies (UNESCO 1980). But even so women were then still outnumbered two to one in the classrooms.

One of the very important problems vocational education faces is the 'old image' problem. Because it is considered low in the levels of academia and very poorly resourced, teachers and administrators try to improve the image by adding to the academic content. In recent years the reverse has happened. So not only because of its lack of resources but also in an effort to improve its academic input much theory has been built into the vocational curricula (UNESCO 1980). To find the right balance of theory and practice however is not an easy task. Australia took one step further late in the last decade and sent out a team of the Commonwealth/State Training Advisory Committee (1990) on an overseas mission to study vocational education and training in several industrialized and developed economies. The mission’s brief included identifying relevant features of vocational education and training applicable to "developing means of improving the efficiency and effectiveness of Australia's vocational education and training system" (COSTAC 1990:iii). The mission provided an overview of its findings and a range of recommendations. In 1997, Australia again through its Department of Education, Employment, Training and Youth Affairs organized a forum between Australia and the European Union Roundtable on education and

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5 The general report by the mission was published in 1989 with an overview of the finds and a range of recommendations with regard to Australia's vocational education and training (COSTAC 1989).
training. This meeting brought together experts and representatives from the European Union and Australia to consider and exchange information and experiences on key educational and training issues during the 1990s. A section in the report has highlighted vocational education and training and provided overviews of recent developments and training programs in both Australia and Europe (Commonwealth of Australia 1998).

2.3 Papua New Guinea - Late 1800s to Late 1960s

Warren (1967) observed that prior to the Second World War, vocational technical education was an almost unknown field. Educators and administrators were quite unaware of the important role the vocational training sector could play in industry and at the macro-level of national economic development. Vocational training was treated at a micro-level in village development schemes under various titles such as, 'industrial training,' 'technical or artisan training,' which often included agriculture and plantation activities, and it was particularly advocated by the early missions (Austin 1978).

The nature of colonial rule and the vital role of the different missions in education in the island of New Guinea have divided the written sources on vocational training between German New Guinea, later the Mandated Territory of New Guinea at the end of World War I, and British New Guinea, which became the Territory of Papua under Australian rule from 1906 to the end of the Second World War when the two territories, by legislation, became the Territory of Papua and New Guinea in December 1949. The name 'Papua New Guinea' was created in 1971 and was adopted when the territory reached nationhood in September 1975 (Ryan 1975; Jinks, Biskup and Nelson 1973; Waiko 1993; Turner 1994; Cleland 1996).

Several studies have been undertaken by individuals on general education and technical training but none solely on vocational education and training. Vocational education more or less tagged along with technical training. The studies by Colebatch (1968); Dickson (1971) on the Anglican Mission both in Papua and the Mandated New Guinea, Geoffrey Smith (1975); Austin (1978) on technical education in Papua, Howie-Willis (1980); Peter Smith (1987) and Wetherell (1996) give us an appreciation of the missions' efforts in providing education and training for the indigenous population for almost 70 years.

While some of the studies view the colonial administrations' policies on education with disappointment (Colebatch 1968), especially as there were no government schools built in Papua before World War II, Austin (1978:vii) reveals that there had been "... some notable achievements
... in the area of technical education". Austin's study shows that the missions have been involved in the training of skilled and semi-skilled tradesmen since the 1880s, and even though the administration in Papua did not set up schools of its own, finance was provided for five mission-run technical education schemes by Sir Hubert Murray's administration. The missions also operated many small-scale and low level training schemes, which can probably be defined as vocational schools, with financial backing from the government. These developments were of course before the Second World War so that after the war, some "skilled Papuan artisans..." (Austin 1978:vii) were available to help rebuild the colony.

These studies show much diversity in educational practices among the missions. However, the most notable has been in the kinds of technical vocational skills training offered. One of the most successful is believed to have been the Kwato Mission under the founder and missionary Charles William Abel. The work on Kwato began about 1892 with a program involving carpentry, building and brick-making for the men on the island mission station. Livestock (dairying) and agriculture (coconut plantations) were established on the mission out-stations. By 1902, the building of a whaleboat had started and a whole new industry began on the island of Kwato. It was clearly an expansion of what was already in place (Smith 1975; Turner 1994; Wetherell 1996).

Kwato in fact became renowned for boat building as the local tradesmen went out from Kwato Mission and built their own village boats. One such example is the late Alaluku Gowari of Oba Hamlet on Sideia Island in the Milne Bay Province. Such entrepreneurship had a multiplier effect so that young men who worked with the late Gowari returned to their own villages and also built boats. Taipwa Hawele of Isunamwaleuyo village on Saliba Island, together with his brothers built their own boat named "MV Sinali". Again this research is not concerned with tracing the details of the special trade-skills transferred from the missions to the villagers except to emphasize the importance and value of such training. The women's training program involved domestic training in laundry-work, needlework, bread making, cooking, housework, personal and community hygiene and cleanliness as well as nursing and teacher training for elementary schooling (Smith 1975; Nadile 1989; Wetherell 1996). The program is indicative of the obvious acceptance of what were thought to be the then appropriate roles for women in Western communities.

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6 "Sinali" in the Saliba language means not having confidence in someone. Taipwa Hawele is a grade six school leaver. Village people were skeptical that he could build a boat. But against all odds he completed the boat that carried passengers and cargo anywhere in Milne Bay Province and makes occasional trips to Port Moresby. The name signifies their pride and confidence in their skills and abilities. In a nutshell, it is a 'daring' thing to do.
Germany on the other hand, ruled northeast New Guinea for 30 years, from 1884 to 1914. From 1885 to 1899, a German private company known as the Neu Guinea Compagnie (New Guinea Company) administered the colony. The company set up several stations and one of them was the central station located at Finschhafen in the Morobe Province. Buildings were erected for station purposes but perhaps the resultant effect led to the eventual establishment of the government schools and especially the technical school in Rabaul (Sack and Clark 1979a). With the help of 150 labourers, in the summer of 1887, 16 buildings were constructed including the residence of the Administrator, office buildings, kitchen, canteen and bakehouse, accommodation for the labourers, warehouse, stores and various stable buildings. A house intended for a hospital was also constructed and another as an engine room for a sawmill was erected. In addition, a house for the technician in-charge and a repair shop for tools and equipment were built. There was also a suitable piece of ground identified for the cultivation of vegetables and for experimenting with useful tropical plants. A paddock was fenced to accommodate 80 herds of cattle (Sack and Clark 1979a).

The enormity of settlement clearing and station building resulted in an increased need for more labourers but there were difficulties involved in recruiting Malay labourers and the local villagers were unskilled and considered unreliable, besides being initially hostile. Consequently, the need to train other New Guineans was apparent. It was reported as early as 1886/87 that the 'task of educating the indigenous' still largely remained to be done. The New Guinea Company however, was more interested in establishing business enterprises than in politics and schools. The company believed too that mission activities were vital to gaining control over the indigenous people peacefully. Therefore, the company did not open any school before the administration of the protectorate was returned to the German government in 1899 (Sack and Clark 1979a).

Several missions operated in the German colony - the Methodist (Wesleyan) Mission, Rhenish Mission (Lutheran), Neuendettelsau Mission (Lutheran), Missionaries of the Most Sacred Heart of Jesus, Holy Spirit (Divine Word), and Marist Mission (Catholic). The missions operated the only schools until 1907 when the first government school was set up. The missions conducted a variety of programs involving religion, literacy and numeracy particularly, in the local vernaculars, and they also taught gardening and trades such as carpentry, mechanics, and masonry, tailoring and encouraged the spread of the German language as the language of 'education, trade and commerce'. The Imperial Governor, Albert Hahl, gave the missions grant-in-aid for the purpose of promoting German language and culture (Sack and Clark 1979a; Peter Smith 1987).

The first government school was built on the heights of Namanula hill in Rabaul, East New Britain. It was opened on 16 September 1907 with one female and two male teachers and an enrolment of
27 trainees from the villages nearby. At the closure of the school in March 1914, there were three male European and three indigenous teachers. It was planned that the school would have two classes in its second year, and students from other places including Bougainville would be accepted depending on space in the dormitory and classroom. In the third year, that would be 1909, German language would be introduced and instruction would be given in (practical) trades. The next school year began on 7 September 1908 with 60 students coming from the Gazelle Peninsula, Solomon Islands, New Hanover and Central Neu Mecklenburg (New Ireland). Twelve of the students considered advanced, worked as compositors and printed the Amtsblatt (Government Gazette) which first appeared on 15 January 1909. A Government school for European children was opened as planned on 19 April 1909 with ten students, 3 being female. This school was located in the same school area and with the same teachers as for the indigenous school. But the European children lived in hostel accommodation and the New Guineans in dormitory type. The introduction of German language and manual arts courses in the indigenous school were delayed until 1912 (Sack and Clark 1979a).

It was reported in the 1911 - 12 Annual New Guinea Report (Sack and Clark 1979a), that there was an increase in the number enrolled so that the European school had 15 students who were taught in small groups of three or even two per class. The subjects taught included German, arithmetic, religion, history, geography, nature study, drawing, gymnastics, singing and civics for 30 hours/periods per week. For the indigenous school, the enrolment rose from 60 to 87 and the students were taught in three separate groups. Two of the older students gave instruction as assistant teachers. German language was immediately introduced in 1912 as the language of instruction and a trade section was added to the school. Carpentry, metalwork and bookbinding were taught. The 'pupils showed considerable aptitude,' the report said; and the government school (Sack and Clark 1979a) continued the printing of Amtsblatt and other printing assignments for the administration and private individuals.

The period between 1 April 1913 and 31 March 1914 produced the last report on the German colony before the First World War broke out. The European school, which included Malays and Chinese, had two female students but the indigenous school had males only. It seems there were no real problems with the European students. As for the indigenous students, the enrolment rapidly rose to 144 causing problems of accommodation and classroom space. There were also problems of absenteeism and various cases of illness. Nevertheless, in the eight years of the life of the school, it was progressive. Classroom instructions were given from 7 to 11 o'clock in the mornings, and afternoons were spent in trade instruction (Sack and Clark 1979b).
It was further reported in Sack and Clark (1979b) that the School also set up trade and bookbinding sections. Twenty-one students worked in the trade section where they learnt basic technical procedures and the use of tools, carpentry, joinery and metal work; and produced school furniture such as desks, book and paper shelves, and 24 small wall lockers for the student dormitories. They also built nine huts as accommodation for some students and staff employed by the school. The bookbinding section had about twelve students who were instructed to cut and paste, and sew and bind books. Approximately 300 books were sewn and bound, 14 document boxes were made; and advanced students were trained in typewriting. The school also had a vegetable gardening project and students were responsible for maintaining the cleanliness of the school grounds. Students who had graduated from the school worked in the printery. They continued to produce the government gazette and printed 90,000⁷ forms in the final year. On 1 October 1913, the school graduated 23 young men who had six years of schooling. They were taken into the Imperial Government service as:

- 5 assistant clerks
- 6 artisans
- 9 printers
- 3 assistant teachers

Five others who worked in the bookbinding section also left school to take up employment in the same month of October (Sack and Clark 1979b). It was an interesting period, and clearly a beginning of formal employment in the work place by school leavers with trade skills.

Soon after war was declared in Europe in August of 1914, Australia sent a military force against German colonies in the Pacific and consequently took possession of the German headquarters in Rabaul in September 1914. Until civilian rule returned in May 1921, the Australian military authority was in control during the First World War. The mission schools and training continued but, the former German government school at Namanula in Rabaul was permanently closed and the students scattered. Some found employment in Rabaul, others returned to their tribal groups (Peter Smith 1987).

Some detail has been provided on the Rabaul School because its achievements were extraordinary given the time and place of its establishment. The achievements of the students of the Rabaul school

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⁷ The figures quoted by Peter Smith (1987) differ from the report (1912-13) translated and edited by Sack and Clark (1979a:151). Smith's version of the translation made in 1922 for the Australian Administration quoted "90 different forms were produced in a complete edition of 50,000 copies" (Peter Smith 1987:31). The important point to note is the fact that trades skills instruction was an integral part of the early German school system.
are all the more surprising as many had slight contact with the outside world before going to school. The adaptability of the students was remarkable.

Under the Australian civil administration, an Education Ordinance was passed in 1922, which, among other things, authorized the Administrator to set up government schools. Apart from the Elementary and other training institutes, a technical school known as 'Malaguna Technical School' was built in Rabaul. The first 25 young New Guinean men selected to be trained were previously trained in missions. The program included physical exercises (taken early in the mornings), English, arithmetic and writing. The handicrafts or trades taught were carpentry, plumbing, motor engineering, machine work and rattan work. There were also a few half-castes indentured as apprentice fitters and carpenters. Another school, 'Domestic Economy' or 'Home Economics' was introduced with a view to training domestic workers in cooking, laundry work, washing and ironing (Peter Smith 1987).

In the two decades leading to the outbreak of World War II in 1942, the Mandated Territory Administration stopped funding the mission schools, and was rather indecisive and reluctant about building more government schools. This was due to delays in considering proposals regarding the future of indigenous education. Hence, by the time the Pacific War broke out, Australia had not progressed "in establishing a sound system of education" for the Mandated Territory (Peter Smith 1987). By 1940 the government funded just the one technical school in Rabaul and several schools providing a general education.

In his study on technical training and development in Papua between 1894 and 1941, Austin (1978) argued that the colonial administration had been unfairly blamed for lack of formal education in Papua. His study revealed that the subsidies paid to the missions especially for technical training are worth commendation. The London Missionary Society, the Catholic Church, Anglicans, the Methodist and the Kwato Mission have all contributed in one way or another in technical trades and other skills.

Abel's Kwato left a remarkable history of a vision to train the indigenous people in industrial and other skills. Abel's method was simple - he separated the men from the women and to begin with the instruction was delivered on the job and in the workshops and boats for the men while the women were instructed in the kitchens, the bakery, the hospital, the home of the missionaries and the laundry and handicraft places. The language of training was mostly English and Suau was the main vernacular. While the men trained in trade skills such as carpentry, boat building, mechanics,
plumbing, electrical, agriculture, plantations and pastoral, the women's skills involved domestic duties, nursing and teaching (Austin 1978; Nadile 1989; Wetherell 1996).

What have the trainees done with the skills acquired? Many of the men returned to their own village as Gowari's story illustrated in page 39 and used the skills learned to build boats and houses. Others remained and served on the mission stations and still others went out and joined the formal wage employment sector in towns. Those who were trained as pastors and teachers were sent out to plant new Churches and establish primary schools. The trained nurses especially remained on the mission's establishments. It is not known if any of the women ever gained formal employment. Very few remained on the coconut plantations and agriculture may be seen as an area of failure. It needs to be noted too that Kwato also trained for discipline, respect and cleanliness. The students were expected to be presentable in appearance and manner. Kwato's influence on skills for living may also be observed in villages that are often clean, and with a table cloth and flower vase on the table together with baked bread or scones and pot of tea. These are common elements observed among those with links to the Kwato Mission.

With the invasion by the Japanese on 23 January 1942, PNG became involved in the war and all civilian administration was suspended in both the Mandated Territory and the Territory of Papua until the Japanese surrender in August 1945 (Jinks, Biskup and Nelson 1973; Turner 1994; Howie-Willis 19780; Commonwealth of Australia 1961-66). However, the establishment of the Australian New Guinean Administrative Unit (ANGAU) maintained the administration of indigenous peoples and plantation production. ANGAU was the Australian military authority set up to administer areas of both Papua and New Guinea not occupied by the Japanese for the duration of the war. Near the end of the war, a new administration known as the Australian Provisional Administration replaced ANGAU in July 1945. The Australian Parliament further formalized the administrative act and passed it as the Papua and New Guinea Act 1949. The most significant outcome of this legislation was a political turning point when the combination of the two territories was confirmed (Cleland 1996; Turner 1994; Moore et al 1984; Howie-Willis 1980).

When the war broke out, the education of the indigenous population, which was still in its infancy, came to a halt for almost four years (New Guinea Annual Report 1961; Howie-Willis 1980). Nevertheless, the demands of the armed services for skills provided many Papua New Guineans with the opportunity to acquire new work skills. Many became drivers, more trained as medical assistants, and several had opportunities to work in signals units with radar, radio and telephone communication systems.
By the end of the war there was some formal education of Papua New Guineans but generally the war had been a time of on-the-job training for those involved. The "New Deal," though the Labor Government stopped short of their promises, was a kind of resuscitation force, to bring education back to life in all its forms. Labor was determined to make a fresh start with E.J. Ward as the Minister for External Territories, Colonel J.K. Murray as the Administrator and W.C. Groves as Director of Education to implement the "New Deal" program. Groves took up his appointment on 30 June 1946 with the immediate tasks of planning the educational requirements of the Territory and organizing the establishment of the Department of Education, to be properly equipped and staffed to give effect to the plans.

Groves was the first Director of Education from 1946 to 1958 (New Guinea Annual Report 1945-46; Howie-Willis 1980; Wetherell 1996). Education was considered a most important item in the plans for the development of the Territory and the advancement of its people. And it continued to be a stated priority of Australians. It was so important that at the negotiations for political independence, the Australian Administration insisted that 'education' was one item they would want maintained as a priority with generous budget appropriations. The Education Department was set up on 30 June 1947; a year after the Director was appointed. Of the 106 officers planned for, only 32 officers were actually appointed due to the lack of qualified personnel. The officers appointed included qualified teachers, and administrative and clerical staff.

The new department, as set up on 30 June 1947, had four divisions:

General

Technical

Special Services, and

Female Education

The Commonwealth of Australia to the United Nations General Assembly in the middle of 1946 did not mention vocational training in the first New Guinea annual report. But the Technical Division provided training together with approved government and mission training centres that offered forms of vocational training. Special funds were also made available for technical education under the post war Commonwealth of Australia Reconstruction Training Scheme (New Guinea Annual Report 1945-46).

The broad objectives of education under Groves' direction were:
• universal literacy
• development of the indigenous people as a community in their own environment, including all aspects of indigenous culture - art, music and handicrafts

At the same time, the Department sought to assist the people in adjusting their mode of lifestyle to the changing environment and conditions resulting from the impact of European civilization and cultures. In practical terms, the Education Department envisaged education serving the purpose of improving health, nutrition and general social and economic standards (New Guinea Annual Report 1945-6).

Education was free in all the administration and mission schools. Missions and administration medical officers also provided free regular health services for students. Where boarding facilities were available and students had to travel long distances to schools, the government provided transport at the administration's expense (New Guinea Annual Report 1945-6). For example, the travel costs and subsistence for students travelling from other districts to the Sogeri Training Centre in Port Moresby were met by the Administration.

By the middle of 1947, much had been re-established and reconstructed after the war with long-range plans for education put in place including the part to be played by education in raising the standard of living. In December 1949, the Liberals defeated the Labor Government in the Australian national elections and appointed P.C.Spender as the Minister for External Territories before replacing him after eighteen months with P.M.C.Hasluck (later Sir Paul). Hasluck's appointment coincided with the creation of a single ministry in the Australian Government where the control of and the administrative responsibilities for Australia's territories came under one Minister and were separated from the Foreign Affairs portfolio. Apart from Norfolk Island, Northern Territory and Nauru, Hasluck was given the Territory of Papua and New Guinea in his portfolio. Hasluck ruled the Territories for a total of twelve years from 1951 to 1963 (Hasluck 1976; Porter 1993).

During the period that Hasluck controlled the Territories Ministry, he was faced with the enormous challenges and responsibilities of development problems and the need to bring about change, particularly in the Territory of Papua and New Guinea. In Hasluck's biography, Porter (1993:89) describes the tasks that Hasluck faced in the Territory of Papua and New Guinea:

In fact, as late as 1951, out of a total of 183,540 square miles (475,368 square kilometres) of territory, only 125,530 square miles (325,123 square kilometers) had been brought under a degree of administrative control. The Australian Government, therefore, still faced an immense task in establishing and extending a national
administrative structure before it could commence the implementation of
comprehensive policies and programmes for the advancement of the geographically,
culturally and socially disparate indigenous population. ... Hasluck was confronted by
an administrative structure that was small, poorly trained and generally ill equipped to
fulfill the development tasks confronting the Australian Government.

Nevertheless, Hasluck, who was initially disappointed at being given a minor portfolio, soon
realized "there was a task of considerable importance to be done and he purposefully set about
doing it" (Porter 1993:92). He made two visits to the Territory in 1951 and 1953 where he
developed a depth of knowledge about the territory, its people and its problems by talking to
government officials, people in private enterprise and local people, and by studying government
files and submissions. This first hand information gave him great inspiration and a vision for the
governance of the Territory. He was compelled by this knowledge and it led him to play a direct
and active role in shaping the structure of the bureaucracy and its activities, and in initiating and
developing government policy. Hasluck was instrumental in developing some of the most important
policies such as the land tenure system, labour and employment and health policies. Also amongst
these policies was the education policy. Not only did he influence the broad outline of these policies
but gave direction and actual details of policies, such that in 1954 he drew up the following details
of the "objectives and purposes of educational policy" (Porter 1993:109) for the territory. The
purpose was:

... (a) the political, economic, social and educational advancement of the people of Papua
and New Guinea
(b) a blending of cultures; and, in the absence of any indigenous body of religious faith,
founded on native teaching or ritual
(c) the voluntary acceptance of Christianity by the native peoples

The objectives were outlined as:

... (a) To achieve mass literacy, that is to say to attempt to teach all native children to read and
write in a common language
(b) To show them the way, awaken their interest in, and assist their progress towards achieving
a higher material standard of living and towards a civilized mode of life
(c) To teach them what is necessary to enable them, step by step as changes take place in the
Native communities in which they live, to manage their own political affairs, to engage in economic activities to sustain a higher material standard of living, to adopt practices of civilization in regard to social habit and custom and their daily mode of life and to develop and express their own personalities.

(d) To retain what is best to native life and to blend it with the influences of Western Civilization so that, while gaining the advantages of Western Civilization, they will not lose their proper pride in the fact that they have an identity as Papuans (Papua and New Guineans) and so that when in the generations to come, they may be required to manage their own affairs to a greater degree, they may feel a common bond among themselves as a people.

(e) To replace paganism by the acceptance of the Christian faith and the ritual of primitive life by the practice of religion.

(f) As a consequence of the foregoing, to strengthen the bonds of respect, mutual interest and loyalty to one another between Papua and New Guinea on the one hand and Australia on the other.


Hasluck further outlined the administration's educational priority activities as:

(a) First attention to be given to primary schools with the goal of teaching all children in controlled areas to read and write in English.

(b) For the above purpose efforts to be made to ensure the co-operation of the Christian missions; and special attention to be given to teacher training.

(c) Manual training and technical training to be developed both in conjunction with the primary schools and in special schools in response to the developing needs of the people.

(Hasluck 1976:94; Peter Smith 1987:190-1).

The missions continued to provide the bulk of the educational infrastructure at the time Hasluck became Minister. It was reported that in the Territory of New Guinea (Commonwealth of Australia 1950-51; Peter 1993), the missions administered 2,348 schools for the indigenous children with over 85,000 children, while the administration operated only 80 schools with 2,000 students. In Papua, "the relative proportions were similar" (Porter 1993:122). The administration had 16 schools for the indigenous children and there were about 777 mission schools (Commonwealth of Australia 1955; Hasluck 1976:94; Peter Smith 1987:190-1).
As it was in Sir Hubert Murray's earlier administration, there was little alternative but to capitalize on the missions' educational resources by providing financial support to the missions. The difference with Murray's policy was that Hasluck, while helping the missions financially, sought to create and expand a government school system. Under Hasluck's ministry, schools, teachers and programs of teacher education and training greatly increased. By the middle of the 1950s, three teacher training colleges were set up, there was increased recruitment of Australian teachers, and about 5,000 indigenous children were attending primary schools.

Hasluck firmly believed that unless there was a good build up of basic primary education, effective secondary and tertiary education were impossible. From 1945 to the early 1960s primary schools were well funded but at the expense of secondary and tertiary education (Hasluck 1976; Porter 1993; Turner 1994; Waiko 1995). This is however not due to absolute neglect of secondary and tertiary education and other forms of training. Many critics of Hasluck's policy appear to have taken the policy on 'universal primary education' out of the social context and the time in which the policy was formulated. Porter (1993) explained that by the early 1950s, not many indigenous children in the territory had reached full primary education, let alone become fluent in the English language. Rather than spend the limited resources on building secondary schools for a minority, in 1954 the administration began sending overseas the few who had completed primary schooling. According to Hasluck (1976:221), in April 1956, fifty-six Papuan and New Guinean students considered to be "... the best indigenous candidates for secondary education..." were provided with scholarships to complete secondary schooling in Australia. The scholarship scheme provided full cost of education in Australia including board, tuition, fares, clothing, equipment and incidental expenses. In the whole Territory, by the end of Hasluck's first five years as Minister for Territories, few of the Territory's students could make it beyond the Junior high school examination. Hence, the administration considered establishing 'intermediate schools' and a commitment was made to establish other forms of education and training such as agricultural, technical and vocational (Hasluck 1976; Porter 1993). By 1957, it was reported that there were only twenty-two indigenous students studying at Australian secondary schools. At the end of Hasluck's term as Minister for

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8 Papua New Guinea has well over 800 vernacular languages with widespread use of Hiri Motu and Pidgin English, and with the English language being the official language of government and commerce. When it came to the question of which of these languages to choose as the medium of school instruction, there was much debate both pedagogically and politically. There were anthropological and linguistic arguments, too, particularly on the question of Pidgin, but Peter Smith (1987) explains why the indigenous people favoured English. "... English, as the language of the colonial authority, was perceived by Papua New Guineans as the language of emancipation. A knowledge of English not only led to a good job, it provided a means of access to political and economic parity with Australians" (Peter Smith 1987:194).

9 "Intermediate schools" were set up in the hope of increasing the numbers of capable students who could go on to secondary schools or teacher training institutes. These and other initiatives and thinking behind Hasluck's policy actions unfortunately do not seem to have been properly acknowledged (Porter 1993:111-2; Peter Smith 1987:185-6).
territories, there were 26 (in 1960) to 33 (in 1961) Papua and New Guinea students attending secondary schools in Australia (Commonwealth of Australia 1956-57; 1960-61).

By the middle of the 1950s it was expected that many more of the indigenous children would have attended administration schools. Instead, of the estimated 400,000 school-aged children, only about 12,000 had received education offered by the government. The slow progress was attributed not only to limited resources and the inadequacy of primary schooling but also to the Director for Education, W.C. Groves' lack of cooperation with Hasluck on educational planning (Hasluck 1976; Peter Smith 1987; Porter 1993). At the retirement of W.C. Groves in the late 1950s, formal education plans were prepared in detail by Groves' former deputy and successor, G.T. Roscoe, in 1958 to reach the aim of 'universal primary education' by 1975 (Peter Smith 1987). At the conclusion of Hasluck's time as Minister, there were still over half the people of school age who had no school to go to. By 1975, there was still no 'universal primary education' - 30 years after it was announced to be Australia's policy (Legge 1956).

Porter (1993) reported a 100 percent increase in education expenditure between 1952 and 1957 to about £800,000 but Howie-Willis (1980) and the Commonwealth of Australia (1949-50 and 1961-62) reported somewhat differently though not disagreeing that there was indeed a significant increase. Before 1951, the education budget comprised 3.6 percent of total government expenditure ($0.47 million out of 12.8 million). By 1963 the education vote had risen by 6.8 percent, to 10.4 percent ($6.3 million out of $59.9 million). The Education Department had moved from position number four in the size of its vote to number one. The number of administration schools also increased from 50 schools with 2,827 pupils in 1949-50 to 284 schools with 26,593 pupils in 1961-62; a five-fold increase over the decade (Commonwealth of Australia 1949-50 to 1963).

The first fifteen years of the post war saw steady progress in foundation education; that is without extensive post-primary and tertiary training. Much of this progress has been attributed to Hasluck as the Minister for External Territories, for it was in his term as minister as discussed earlier, from 1951 to 1963 that education spread and increased in size throughout the Territory. The growth in the education sector continued even more rapidly in the mid 1960s as will be seen in page 53. Hasluck was a visionary who saw education as the key "to the whole structure of development" (Howie-Willis 1980:24). Hasluck and the Liberal Government of Australia may not have achieved all they aspired to, and Hasluck was heavily criticized for his stand on his policy of literacy through universal primary education by the time his term expired (Howie-Willis 1980). There were

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10 "The occasion was the Second Reading speech by the Minister for External Territories, Mr. E. J. Ward, on the Papua-New Guinea Provisional Administration Bill, on 4th July 1945" (Legge 1956:192).
unfinished tasks at the end of Hasluck's ministry, but it is important to recognize that this man had called the 'administration' of the territory into action, and caused the development of education and training to move forward from when he was appointed minister. For he believed in "administrative action as a measure of the success of government policy" (Porter 1993:108).

Post-primary education was provided in various forms though not in what were formally known as 'secondary school' during the 1950s. These schools were variously called 'Area Schools,' 'Central Schools' and 'Higher Training'. The Area Schools provided four years of education and were run by both the administration and the missions. Vernacular and English were used as medium of instruction as well as English being taught as a subject. Area Schools served a number of villages belonging to a single cultural and linguistic group, with the hope of making them centres from which education might reach the adults. The Central Schools provided two years of schooling and were also operated both by the administration and missions. English remained the medium of instruction in these schools and the missions offered domestic training to girls. Higher Training Centres were also set up and operated by both the administration and missions providing education for three years duration. As mentioned, there was also a scholarship scheme offered by the Australian Government to selected PNG students for secondary education in Australia. The scheme ended in the 1960s as secondary education became firmly established in the country (Commonwealth of Australia 1948-49 to 1950-51; 1956-57 to 1958-59; 1960-61).

Hasluck envisaged establishing an education system similar to that in Australia - a three-stage system (Porter 1993) - where there was the school sector (includes pre-school, primary and secondary), vocational education and the training sector (including post-secondary education, technical and further education - or TAFE, in the Australian jargon, involving adult and continuing education of various sorts), and higher education sector (Commonwealth of Australia 1958).

There are always problems when one system of education is imported from one country to another (UNESCO 1980), and the territory administration misunderstood the point about the 'three-stage' bases so that vocational education and training became more of an appendage rather than a total part of the whole system. The three-stage system in the territory, then, comprised a primary sector (community schools), secondary sector (provincial high schools) and higher education sector including the universities (Department of Education 1981, 1986, and 1996).

The misconceived concept of the three-stage education system was probably the reason that vocational education and training in the first fifteen post-war years received no specific mention anywhere in the annual territory reports. That does not mean that there was nothing going on in any
form of vocational training because the emphasis in such training was on practical work. So various forms of practical learning were provided particularly by the missions as reported by the Commonwealth of Australia (1947-48 and 1959-60), Colebatch (1968), Geoffrey Smith (1975), Austin (1978), Howie-Willis (1980), Peter Smith (1987) and Wetherell (1996).

As noted earlier, the formal institute that resembled a vocational centre was the Malaguna Technical School, built in Rabaul soon after the Ordinance was passed in 1922. The first trainees graduated in 1929, fulfilling in a small part of the objective of the 1922 Education Ordinance to provide skills for those seeking employment. Between July 1929 and May 1932, fifty-two students had graduated and all were employed, 32 in the administration and 20 with private firms or individual employers. The various trades represented by those graduates were:

- 11 carpenters
- 8 plumbers
- 4 telephone attendants
- 17 motor drivers
- 1 sail-maker
- 1 painter
- 15 contracted by the Department of Public Works

(Peter Smith 1987).

Both local and international political pressure caused the Australian Government to prepare PNG for self-government and eventual independence in 1975. It was evident that Australia was willing to grant PNG independence as soon as the people wanted it and were able to manage it (Howie-Willis 1980). Several studies were undertaken at the request of the Government of the Commonwealth of Australia. Two of the early studies were the Commission of Higher Education in Papua New Guinea in 1964, known as the Currie Report, and the International Bank for Reconstruction and Development in 1965. The Currie Report investigated strategies for the further development of the tertiary level of the education system; while the Bank was primarily concerned with economic potential. The two studies made recommendations to guide the Australian Government in planning a development program that served the needs of the country and met the interests of the people, by increasing human capital at the tertiary level, expanding and stimulating the economy in order to improve the standard of living of the people; and most of all for the political advancement of the country (The Currie Report 1964; International Bank of Reconstruction and Development 1965).
As a result of these two studies, as well as the impact of the World War II when Papua New Guineans became exposed and heightened in their awareness to the world around them, local leaders became vocal and persistent in their requests for schools. The 1960s saw both administration and mission primary and secondary schools increasing their efforts to improve the system in order to feed higher education.

Table 2.2 below, though figures are in the then Australian pound (£), shows the general increase in the total Administration expenditure on education (Commonwealth of Australia 1964-65). Hasluck's policies on education remained in force until 1964 when the Currie report was released.

Table 2.2: Indigenous Education Expenditure - 1960 - 65 (£)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Departmental</td>
<td>1,003</td>
<td>1,233</td>
<td>1,704</td>
<td>2,101</td>
<td>2,506</td>
</tr>
<tr>
<td>Grants-in aid</td>
<td>283</td>
<td>238</td>
<td>307</td>
<td>355</td>
<td>466</td>
</tr>
<tr>
<td>Total</td>
<td>1,286</td>
<td>1,560</td>
<td>2,011</td>
<td>2,456</td>
<td>2,972</td>
</tr>
<tr>
<td>% change from previous years</td>
<td>(47%)</td>
<td>(21%)</td>
<td>(25%)</td>
<td>(22%)</td>
<td>(21%)</td>
</tr>
<tr>
<td>% of total Admin. Expenditure</td>
<td>(9.5%)</td>
<td>(11%)</td>
<td>(9%)</td>
<td>(10.9%)</td>
<td>(11.3%)</td>
</tr>
<tr>
<td>Other Depts-Education &amp; Training</td>
<td>58</td>
<td>65</td>
<td>492</td>
<td>424</td>
<td>738</td>
</tr>
<tr>
<td>Public Libraries</td>
<td>10</td>
<td>6</td>
<td>13</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>Building Construction &amp; Equipment</td>
<td>249</td>
<td>400</td>
<td>524</td>
<td>817</td>
<td>667</td>
</tr>
<tr>
<td>Total Expenditure on Education</td>
<td>1,603</td>
<td>2,031</td>
<td>3,040</td>
<td>3,717</td>
<td>4,399</td>
</tr>
<tr>
<td>% Change from previous year</td>
<td>(46%)</td>
<td>(30%)</td>
<td>(47%)</td>
<td>(22%)</td>
<td>(18%)</td>
</tr>
<tr>
<td>% Of total Administration Expenditure</td>
<td>(12%)</td>
<td>(14%)</td>
<td>(18%)</td>
<td>(16.6%)</td>
<td>(16.7%)</td>
</tr>
</tbody>
</table>


The number of indigenous schools and enrolments increased substantially. Table 2.3 shows the rapid acceleration in this sector in the Territory. The Commonwealth of Australia's reports to the United Nations revealed that in almost half a decade (1959 to 1965), the number of administration schools increased from 198 to over 284 with enrolments from 15,349 to 37,291. However, the mission registered and recognized schools declined from 2,996 to just fewer than 865 due to probably closure or change in the status of many of the village type schools. This in turn reduced the enrolment from 115,884 in 1959-60 to 87,990 during 1963-65.

One of the reasons for the decline on mission school is that the indigenous people wanted their children to learn the English language, which may explain the increase in the government schools. The missions of course concentrated on learning and teaching literacy in the local language in order
to translate the Bible and christianize the local communities. But the people as mentioned earlier wanted to learn English for more reasons than as the way to getting the whiteman's goods (Peter Smith 1987).

Slowly secondary schools were added to the system. The thirteen administration high schools included four male only schools, two female only schools, five co-educational and two multi-racial co-educational schools (Commonwealth of Australia 1959-60 to 1965).

Table 2.3: Type of Schools and Enrolments 1959-1965.

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Administration</th>
<th>Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pupils</td>
<td>12,517-15,349</td>
<td>21,119-26,593</td>
</tr>
<tr>
<td>Teachers</td>
<td>543-573</td>
<td>776-886</td>
</tr>
<tr>
<td>Secondary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pupils</td>
<td>-*</td>
<td>-*</td>
</tr>
<tr>
<td>Technical</td>
<td>2</td>
<td>807</td>
</tr>
<tr>
<td>Pupils</td>
<td>-*</td>
<td>-*</td>
</tr>
<tr>
<td>Junior Technical</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Community Technical</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>


Three administration technical schools were established: Rabaul (Malaguna), Lae and Port Moresby (Sogeri, later Idubada, now Port Moresby Technical College) in Papua and the one not included in Table 2.3. 1965 added Madang technical school added to the list. The students enrolled at these institutes were Standard 6 school leavers for pre-apprenticeships of two years, and had the "opportunity to pass examinations at Form I level" (Commonwealth of Australia 1964-65:118). Although the technical schools conducted an academic course, they had a heavy bias towards 11 The figures presented in Table 2.3 are based on the reports of the Mandated Territory of New Guinea. However, as Porter (1993) mentioned, similar proportions were reported for the Territory of Papua. Some of the post-World War II reports mentioned Papua on secondary schools such as the 1961-62 annual report on the Trust Territory. By this time of course the administration was integrating students into Papua at Sogeri and New Guinea in Rabaul (Commonwealth of Australia 1961-62).
technical, trade training\textsuperscript{12} with an additional two years after the initial two (Commonwealth of Australia 1964-65; The Currie Report 1964).

Prior to 1967, vocational training centres were known as either 'junior technical training' or 'community technical schools' even though the idea of 'vocational training'\textsuperscript{13} was around before 1951 (Commonwealth of Australia 1949-50). The first of these was reported in the 1959-1960 Annual Report. The 'Junior Technical Training' schools were set up to give semi-vocational training for male students, although female students were mentioned in the Currie Report, as being given instruction at a "fairly low level" (Currie Report 1964:79). The Technical Division was in charge of this training program and provided a two-year course in woodworking, roof plumbing and simple concrete work at the administration school in Madang. The Seventh Day Adventist Mission set up a similar school in Kambubu, East New Britain Province, and trained a class of male students in basic woodworking, and these students then assisted in making furniture and in building projects (Commonwealth of Australia 1959-60).

The 'Community Technical Training' program was designed to give "training in basic skills to young adults with little or no educational background" Currie Report 1964:79). The training centres' objective was to work together with the local government councils and community to provide technical skills closely linked to local economic development. The first centre was opened in late 1959 in Kundiawa, Simbu Province. The second was opened in March 1960 in the But-Boiken area in the Sepik Province. Altogether there were two administration community technical schools and two junior technical schools in 1960 were offering one to two years of practical training, there were only males trained in these establishments.

The female students were placed in three administration girls centres - Tavui in New Britain Province, Dregerhefen, Morobe Province and Madang in Madang Province. Both administration and missions provided post-primary training for female students in domestic science (home

\textsuperscript{12} The first two years had a syllabus covering English, arithmetic, social studies, general science, technical drawing, woodworking and metal-work. In the next two years, students specialized in trades such as auto mechanics, carpentry and joinery, cabinet-making, fitting and turning, sheetmetal work, wood machining, plumbing, welding and aircraft mechanics (Commonwealth of Australia 1959-60).

\textsuperscript{13} The annual reports by the Commonwealth of Australia in 1949-50 reported that, "The Department of Education includes a General Division to organize and direct the schooling of children, to prepare students for vocational training... It also includes a Technical Division to organize manual training in schools for adults, and to organize and direct vocational training for skilled tradesmen, technicians, and technical instructors" (Commonwealth of Australia 1949-50:66). [note in italics is the author's emphasis]. Except for the mention of pre-vocational classes, the annual report in 1950-51 made no reference to vocational training. It would seem probable that Groves being the first Director of Education in the Territory had his own ideas for the education of the people. For example, his aims for education included universal literacy, training for skilled trades and professions, training for village handymen, community development, and have had set up a female education division and social welfare branch, included Boy Scouts and Girl Guides and continued the Native Co-operative movements (Commonwealth of Australia 1950-51 to 1973).
economics): mothercraft, laundry work and sewing, apart from general school subjects, were taught. In 1961 another community technical school was opened at Bau in the Madang Province and the administration planned for expansion as schools and enrolments increased in the primary schools (Commonwealth of Australia 1960-61 to 1962).

By 1961-62, there were four administration community technical schools and five junior technical schools offering courses of the same duration as in previous years. The community technical school was established at a village level to make specific improvements in living conditions by cooperating with village people, using local resources and materials as much as possible. Apart from Kundiawa, Simbu; other centres were set up - Hawain River in Sepik; Mora Mora in the New Britain Province; and Bau as mentioned in Madang. The junior technical schools, which were at a level higher than community technical schools, provided training in skills such as brick making and laying, carpentry and building, plumbing, painting, elementary mechanics, auto-servicing, driving and boat building (Commonwealth of Australia 1961-62).

The schools served mainly boys and young men who had completed five years of schooling and were keen to take up practical work. Fifty percent of school time was devoted to practical instruction in courses in which students constructed school buildings, furniture, made water tanks for schools, and built boats for the Department of Agriculture, Stock and Fishery or completed other similar work. The remaining fifty- percent of time was devoted to normal school subjects such as English, arithmetic and social studies. The best of the students could enter apprenticeships after the two years but most got jobs as assistant tradesmen or other positions for semi-skilled workers. The list of school locations now included Goroka, Utu and Lorengau. There were also classes within the same program offered at the main technical schools in Lae and Rabaul (Commonwealth of Australia 1961-62).

During this time, only one mission Church was added to the list of those in the annual report contributing to technical education (Commonwealth of Australia 1961-62). The Lutheran Church built junior technical institutions at Baitabag and Anul, both in Madang as part of their educational program. They also built another in Baiyer River near Mt Hagen to provide "on-the-job" instruction in carpentry and joinery. Until 1967, the courses offered in both the community and junior technical schools remained unchanged. However, the numbers of the schools and enrolments in both types of technical schools had grown steadily to 22 with 1,153 students by 1966 (Commonwealth of Australia 1965-66).
In addition to schools established by the Department of Education, other sections of government had vocational training establishments. For example, the Cooperative movement had a Co-operative Education Centre in Port Moresby where basic bookkeeping and other subjects were taught. Forestry and Fisheries both had training sections for Papua New Guineans by the 1960s, and the Department of Public Health had a long record of training its health workers.12

2.4 Summary of Discussion

The literature survey clearly showed that vocational training is an established worldwide institution catering for those who opt for non-academic pursuits. Vocational training as defined by the various scholars presented at the beginning of this chapter clearly point to the key issue of vocational training as preparation for wage employment. Historically, vocational education and training have evolved and been shaped by the political, social, cultural/spiritual and economic contexts; as well as the developmental stage of each nation and region. Further, the historical review showed that the notion of work is a social phenomenon, a human activity, changed through the industrial revolution when work was mechanized and monetary value placed on work.

Accordingly, education and training became a very significant part of the industrial revolution. Education was no longer for the elite few; neither was the apprenticeship system the only way to acquire trade skills for employment. Children no longer automatically took up their fathers' occupations, and concerns were raised on the value of education in real life - the relevancy of knowledge and practical skills.

However, the role of government appeared to be confined to the legal framework in making policies and legislation, while the task of actual training was entrusted to the private sector.

Further still, the review indicated that the reports from the European States, Asia and the Oceania share common situations, needs and concerns. For example, curriculum issues, cooperation between government (education) and industry, accessibility to suitable work place related skill requirements,

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12 I am aware that the survey of technical and vocational education and training before Independence lacks detail in this research as its purpose is to indicate the background rather than to provide a comprehensive history. As a result, some particular schools may have been omitted. For example, no mention has been made of the Anglican Martyrs' School in what was then the Northern District where students were given much practical training, although the school was not normally thought of as a technical school. It is also important to note that while the total number of graduates with technical skills was small relative to the total population, it is unknown to what extent these people influenced others in major village projects such as house construction and boat building, or the extent to which they taught others how to maintain and repair trucks and outboard motors. But it was certainly true that by some means, many people in the villages who had never been to a formal school acquired new technical skills, and this informal acquisition of knowledge magnified the impact of the few technical schools and influenced village life.
reluctance of industries to provide relevant work experience for trainees, equipment, finances, teacher education and training, productive or practical work, development of competencies, employment for graduates, evaluation and continuing further training.

Vocational education and training in the South Pacific Region has been placed in a more or less flexible situation where some authorities call it non-formal while others refer to it as formal education. It appears that vocational training became more decentralized into the Pacific Island states rather than being centralized in Fiji for instance. In recent years, Australia has had the foresight to learn from the exchange of ideas and information with other industrialized countries particularly the European Union on vocational technical education and training that assist individuals, industries and training providers right across Australia.

In Papua New Guinea, the background survey looked specifically at the period between the late 1800s to the late 1960s. Although there were differences in the policies of missions and of the colonial administrations in the development of education, and especially, in vocational training, the unwritten policy by the governments of Australia and Germany through the established administrations, was to civilize the indigenous peoples. What this varied - initially it meant little more than imposing peace and employing Papuans and New Guineans as largely unskilled labourers on plantations and mining fields.

Therefore, the types and levels of vocational education and training perceived and implemented were carried out with the view of changing the state of primitiveness, and extending Western civilization. But what stands out is just how few Papua New Guineans had been given technical skills through formal schooling by 1941 and even by 1966. The 1,153 students in community and junior technical schools do not represent more than those attending one large school in Australia. What Papua and New Guinea had by 1966 then, was the equal of Queensland and Tasmania (combined populations equal that of Papua and New Guinea) being served by one technical school.

What we have to ask, then, was technical vocational education and training unjustly neglected relative to other forms of education? A related question is, was there a demand for more technically qualified Papuans and New Guineans in 1941 and 1966? Or was the system meeting a low level of demand at that time? It seems apparent that the Australian administration could have increased the amount of technical education - even if it was just to replace some of the Australians in jobs such as typing and construction work.
Chapter Three

Vocational Training: PNG Local History 1967 to Late 1990s

3.0 Introduction

Chapter three continues the background review from chapter two and focuses on the local history from 1967 to the present. The chapter recounts the transition from the colonial era leading up to independence in 1975 and beyond into the late 1990s. So this chapter is set in the context of the transition from colonial hands to independence and continues into post-independence with the search for a reformed national approach to education and training with a view to national development.

3.1 The Transition

The 1966-67 annual report (Commonwealth of Australia 1966-67) recorded for the first time the renaming of the community and junior technical schools as "Vocational Centres"; both combined under the new title as one. And for the first time the number of enrolments dropped from 1,153 to 880 students (see Appendix B). This may have been a result of a change in categories, but it is possible that the decline in enrolments could be related to The Currie Report (1964), presented in 1964 with emphasis on accelerating secondary and tertiary education. Although the name had changed, many of the courses remained the same except for the addition of sheet-metal work, weaving, crop development and improvement, animal husbandry and fishing. These additions reflected the strong acknowledgement and support for agriculture put forward in the report of the International Bank of Reconstruction and Development (1965). However, the male students remained dominant in these trade schools until 1969 (Commonwealth of Australia 1965-66 to 1967-68).

In 1969, girls were formally admitted to vocational training. The objective in admitting girls to training was to train them in the skills that would help them become better wives and mothers. The girls' courses then included cooking, nutrition, baby care and community studies. Also they were expected to learn the skills of traditional arts and crafts. At the same time, it was realized that the urban girls had different needs from the rural girls, hence the introduction of work skills to get paid employment in towns. Greater emphasis was therefore placed on occupational skills in fields such
as retail stores, factories, child minding centres, hotels, motels and the tourist industry (Commonwealth of Australia 1968-1971; Peter Smith 1987).

While the curriculum seemed to be encouraging employment in towns, the objective for vocational training remained as it had been under the community and junior technical schools – that is, to improve buildings and other facilities in the villages; to develop competencies in handling motor vehicles, outboard motors and skills that would generate income to improve living standards, and initiate commercial enterprises. The International Bank of Reconstruction and Development (1965) supported the view that the community technical schools should aim to give youths and adults training in any skills that a community might need such as building and repair of homes made of local materials, and agricultural projects as indicated earlier. There was no prescribed curriculum due to variations in localities and changes in resources from one local area to another. The common theme was that of "practical training" for practical work. Teachers sought to involve the local community, local government councils and representatives from the administration and private institutions. Because of the practical nature of vocational training, the mode of teaching has been considered as non-formal even though the program was delivered formally. However, it was only after independence, which will be discussed later in this chapter, that vocational training has been officially identified and placed in the category of non-formal education.

The late 1960s and early 1970s had been very demanding years in terms of the administration's preparation towards independence in all spheres of government. The Commonwealth of Australia's (1970-71 to 1972-73) annual reports to the United Nations General Assembly changed from reporting on two different territories, to combining the both as one, 'The Territory of Papua New Guinea'. The vocational training centres were included as one of the types of technical training. Before 1967-68, anyone who had completed primary school but had not qualified to undertake further secondary education could try to enter technical schools. For this reason, Standard 6 school leavers went to technical schools for various types of training such as technical training for apprenticeships, block release courses, certificate (technical level) and vocational training. However, from 1970 onwards, young men and women who had completed Form II (now Grade 7) and above were permitted entry to technical schools (now technical colleges).

The technical training continued secondary subjects such as English, mathematics, science and social science; and an elected trade component. Young women were offered commercial training in typing, bookkeeping, and business English, arithmetic, shorthand and community studies. The training centres were located in Port Moresby, Lae, Madang, Goroka and Rabaul. The upgrading of the technical schools meant that the bulk of the Standard 6 school leavers, who were not qualified to
go to high school, flocked to the vocational centres. The young people wanted education and employment. They wanted the secret to the whiteman’s wealth (Swatridge 1985: Porter 1993), or they simply realized that without marketable skills they had little chance of gaining paid employment. Vocational training supplemented the schooling received at the end of Grade 6. Job opportunities seemed to be opening up and the centres introduced new and part-time courses in driving, trade store management, management of small businesses, supervision, institutional cooking, storemanship, commerce and vehicle maintenance for the male students (see Appendix B). By May 1973, the year of self-government, the number of centres had risen once again to a total of 82 centres with an enrolment of 4,000 students from all agencies (Commonwealth of Australia 1968-69 to 1974).

The vocational centres had grown both in number of centres, enrolment and staffing in the years leading up to independence. The number of vocational training centres however, fluctuated from 60 to over 100 but staff and students more than doubled by 1975. As can be seen in Table 3.1 below, the number of expatriate teachers decreased while the number of national teachers steadily increased. The total number of students rose from 5,415 in 1975 to 6,434 in 1986 with the number of male students (3,935-4,787) continuing to dominate over the female students (1,480-1,647) in the 10 - 12 year period (Preston 1989).

The Education Department (1994) reported there were 123 vocational centres in 1992. In the same report, when the centres in each province (as shown in Table 3.2) were added together, there were only 121 altogether. In his study on non-formal education in Melanesia, Cole (1996) reported there were 125 centres in 1994 with students totaling 11,232 of which 3,522 were females. In mid 1996 however, there were only 120 centres open throughout PNG. The decline is possibly due to the Bougainville crisis7 where schools and various government services had been closed in the North Solomons Province.

The varying number of centres in the reports may also reflect discrepancies in the PNG statistical data reporting and collection, which at best is often weak and inadequate (Manure 1989; McGavin 1991). Or it may also result from statistics being taken at different times of the year or different definitions and interpretations being used.

7 The Bougainville crisis began in May 1989, although problems began over 23 years ago. Landowners' demanded compensation for land and environmental damage of K10 billion from Bougainville Copper and the PNG Government but were refused. The Bougainville Revolutionary Army was set up by the landowners around the Panguna mine site which virtually brought the Bougainville copper mine, largest in the Pacific, to a complete stop. By 1998, a peace process had been put in place for Bougainville and PNG with the assistance of the Australian and New Zealand Governments.
Table 3.1 Basic Data on Vocational Training

<table>
<thead>
<tr>
<th>Year</th>
<th>1971</th>
<th>1975</th>
<th>1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Centres</td>
<td>67*</td>
<td>97*</td>
<td>96</td>
</tr>
<tr>
<td>Government</td>
<td>44</td>
<td>65</td>
<td>69</td>
</tr>
<tr>
<td>Missions</td>
<td>23</td>
<td>32</td>
<td>27</td>
</tr>
<tr>
<td>Male Only</td>
<td>-</td>
<td>-</td>
<td>38</td>
</tr>
<tr>
<td>Female Only</td>
<td>-</td>
<td>-</td>
<td>16</td>
</tr>
<tr>
<td>Co-educational</td>
<td>-</td>
<td>-</td>
<td>42</td>
</tr>
<tr>
<td>Urban</td>
<td>-</td>
<td>-</td>
<td>28</td>
</tr>
<tr>
<td>Semi-urban District</td>
<td>-</td>
<td>-</td>
<td>44</td>
</tr>
<tr>
<td>Rural</td>
<td>-</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td>No. of Teachers</td>
<td>137</td>
<td>306</td>
<td>376</td>
</tr>
<tr>
<td>Nationals</td>
<td>64</td>
<td>133</td>
<td>301</td>
</tr>
<tr>
<td>Expatriates</td>
<td>73</td>
<td>173</td>
<td>75</td>
</tr>
<tr>
<td>No. of Students</td>
<td>3,669*</td>
<td>5,415</td>
<td>6,434</td>
</tr>
<tr>
<td>Male Students</td>
<td>2,737</td>
<td>3,935</td>
<td>4,787</td>
</tr>
<tr>
<td>Female Students</td>
<td>932</td>
<td>1,480</td>
<td>1,647</td>
</tr>
<tr>
<td>Ratio Teachers to Students</td>
<td>1:26.8</td>
<td>1:17.7</td>
<td>1:21.8</td>
</tr>
</tbody>
</table>

**Source:** Adapted from Preston (1989:4). *Denotes data thought to be incorrect.

Vocational training provides almost the only way of continuing further formal education for the Grade 6 youths that miss out on being selected for secondary schooling. It takes two to three years to complete vocational training. For the majority, formal schooling ends permanently after this training, as vocational training is terminal. But some with interest and financial help may pursue distance education by correspondence. Otherwise there is no formal or informal link with either the secondary school system or the division of technical education for further education. The nature of the training, whether or not it is formal training is debatable, but as will be seen in the case studies, the training program activities are indicative of a formal setting while the Education Department prefers to place it arbitrarily under the non-formal system. Preston (1989) speculated that the Department of Education insisted on the non-formal status as a deliberate act of avoidance to deflect financial responsibility, and to avoid addressing the issue of preparing the youths for the urban labour force through vocational training.

What may also be deduced from this is that instead of creating jobs, the government makes a choice as to who can be employed and who cannot. Vocational training may be one of the avenues to make individuals fit the government’s economic plans. That is, the centres were to provide a practical education that young people could use in their home areas, but not to encourage them to go to the cities and use their new skills to find employment in the cash economy. But the youths, particularly
the school dropouts, seem to be unknowingly rejecting the choice made for them by vigorously seeking wage employment after vocational training.

The report by Preston (1989) based on the draft report of the National Evaluation of Vocational Training in 1987, highlighted serious shortfalls in all areas of vocational training. For example, confusions about policy – that the National Department of Education insisted that vocational training was to act as a “stimulus” for villagers, that it was for “community development” and towards self-employment (Preston 1989:15), when in fact the vocational students came with different aims and left with those same different aims. Other problems involved confusion over its status, i.e. whether or not, as previously indicated, it was formal or non-formal. This confusion stemmed from the fact that vocational training started as formal training but when it was changed to a non-formal system, the program activities remained formal. Still other problems identified were the lack of quality produced curricula with established assessment criteria, resource deficiencies, administration and management problems, compounded by poorly trained staff lacking in motivation and commitment to the cause of vocational training (Preston 1989).

Since Preston’s (1989) revelations on the poor status of vocational training in PNG, John Vilivili (interview 1996), Manager of Vocational Centres, discussed at length, six measures the National Department of Education has undertaken to try to address the deficiencies:

• Vocational centre inspectors have been relocated to the Division of Inspectors and Guidance. The number of inspectors has been increased from 4 to 9 with the intent of adding another 5

• A vocational section has been created in the Division of Curriculum Development and curriculum officers have been recruited to write vocational curriculum guides and produce curriculum materials

• A position of staff development officer has been created in the Staff Development Unit to address vocational training staff development needs. The vocational staff development officer liaises with the teacher education and staff development unit on matters relating to vocational teacher and in-service training

• The pilot project jointly sponsored by PNG and the Federal Republic of Germany Governments is intended to come up with ideas to improve the vocational education system

63
and to formulate a vocational training policy. But there is no official policy on this level of education and training

- An annual budget of K500,000.00 was allocated to vocational training centres between 1989 and 1995. These funds were earmarked for upgrading and repairs of existing buildings and facilities, replacement of lost or out-of-date tools and the purchase of additional new tools and equipment, and to improve facilities for training female students. This fund, known as the ‘vocational centres maintenance grant’, has been transferred to the provinces under the 1995 Organic Law on Provincial and Local Level Government Systems.

- Because vocational training is terminal, an initiative is underway to consider unifying the vocational and technical education systems. This will mean access to further training by those who complete vocational training (Vilivili interview 1996).

Although the National Education Department has taken steps to try to remedy the deteriorating condition of the vocational training centres somewhat; much has remained unchanged as can be seen in the case studies presented.

The most recent study on vocational training in Papua New Guinea is included in the study on “Opportunities for non-formal education in Melanesia” by Rodney Cole (1996). The title of the study puts vocational training directly within the non-formal education sector – an image from which vocational training in PNG has greatly suffered. It could even be said that there is a double dose of negativity in being called ‘vocational training’ and ‘non-formal’ in the PNG context. Nevertheless, though the study is less substantial on vocational training in PNG, there is optimism for non-formal education as the way ahead for the majority of the Melanesian people. It is hoped that exposure by an external study would speak for the silent majority whose need for training is often overlooked.

Table 3.2 below, presents the number of provincial vocational centres in 1992 and the annual percentage increase in enrolments. The table shows that population seems to have little bearing on the demands for vocational education. For example, Morobe has the highest Provincial population of 380,117 and has 7 centres, but has only 3% of the increase in enrolments; Sandaun with a population of 139,917 has 18 centres and an increase of 8.4%. Manus (32,840) and Western (110,420) both have 2 centres each with declining rates of enrolments recorded. The highest demands on vocational training are found in two highland provinces of Enga and Eastern Highlands. Enga with a population of 235,561 has 9 centres with an astounding increase in
enrolment of 91.2%; and Eastern Highlands with a population of 300,648 has only 4 centers and has the next highest increase in enrolment of 79.7%. One way to interpret the number of centres in each province is that either a Church or a Charity Organization such as Rotary or Apex, as in the case of Morata, thought it a good idea to build a vocational centre with private funding; or centres were built with public funds through politicians who were vote-buying. The data does not show sufficient evidence that there has been any real educational planning on locating vocational training centres.

Except for North Solomons, a decline in enrolment may be either because people are uninterested in vocational training or because more high school places have become available. It has to be conceded that the decline may also reflect poor capacity at the provincial level to plan or deliver government services. The high enrolments shown in Enga and the Eastern Highlands could also mean that there has been a high rate of school dropout.

Table 3.2: Number of Provincial Vocational Centres – 1992

<table>
<thead>
<tr>
<th>Province</th>
<th>Population 1990</th>
<th>No. of Centres</th>
<th>Annual % Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Capital District</td>
<td>195,570</td>
<td>7</td>
<td>8.8</td>
</tr>
<tr>
<td>Central</td>
<td>140,845</td>
<td>4</td>
<td>3.43</td>
</tr>
<tr>
<td>Milne Bay</td>
<td>157,288</td>
<td>6</td>
<td>14.6</td>
</tr>
<tr>
<td>Oro</td>
<td>96,491</td>
<td>6</td>
<td>1.3</td>
</tr>
<tr>
<td>Gulf</td>
<td>68,737</td>
<td>4</td>
<td>-0.6</td>
</tr>
<tr>
<td>Western</td>
<td>110,420</td>
<td>2</td>
<td>-5.5</td>
</tr>
<tr>
<td>Southern Highlands</td>
<td>317,437</td>
<td>6</td>
<td>1.5</td>
</tr>
<tr>
<td>Western Highlands</td>
<td>336,178</td>
<td>7</td>
<td>21.0</td>
</tr>
<tr>
<td>Enga</td>
<td>235,561</td>
<td>9</td>
<td>91.2</td>
</tr>
<tr>
<td>Simbu</td>
<td>183,849</td>
<td>4</td>
<td>3.0</td>
</tr>
<tr>
<td>Eastern Highlands</td>
<td>300,648</td>
<td>4</td>
<td>79.7</td>
</tr>
<tr>
<td>Morobe</td>
<td>380,117</td>
<td>7</td>
<td>3.0</td>
</tr>
<tr>
<td>Madang</td>
<td>253,159</td>
<td>5</td>
<td>12.6</td>
</tr>
<tr>
<td>East Sepik</td>
<td>254,371</td>
<td>7</td>
<td>15.8</td>
</tr>
<tr>
<td>Sandaun</td>
<td>139,917</td>
<td>18</td>
<td>8.4</td>
</tr>
<tr>
<td>Manus</td>
<td>32,840</td>
<td>2</td>
<td>-1.2</td>
</tr>
<tr>
<td>New Ireland</td>
<td>86,999</td>
<td>5</td>
<td>-0.4</td>
</tr>
<tr>
<td>North Solomons</td>
<td>166,668</td>
<td>5</td>
<td>-11.1</td>
</tr>
<tr>
<td>East New Britain</td>
<td>185,459</td>
<td>9</td>
<td>8.1</td>
</tr>
<tr>
<td>West New Britain</td>
<td>130,190</td>
<td>4</td>
<td>9.3</td>
</tr>
</tbody>
</table>


3.2 The Place of Vocational Training in the Education Structure
The formal education system is structured to correspond with the requirements of the employment system, which naturally requires a qualified and skilled labour force. However, vocational training, which falls into the non-formal education sector, does not feed directly into the employment system (GTZ 1991) - or is presumed not to. This is one example of what Preston (1989:6) calls, "... shifting administrative responsibility...". The Division of Technical Education up until 1978 when Non-Formal Education assumed administrative responsibility administered vocational training. According to Preston (1989), it seems that after 1986 vocational training became homeless and it was not placed under any section of the Department of Education but had the different responsibilities distributed between the various sections.

The GTZ Report (1991) however, claimed that vocational education then remained within the non-formal education system. The vocational education executive in an interview revealed in 1996 that vocational education now comes under the School Services Section of the Department of Education. While the view from the top may give the impression that vocational training is non-formal, the centres themselves, and their very programs and activities as described in the case studies, indicate that vocational training in PNG is very much formal training.

Figure 3.1: The Structure of the Vocational Training System
The administration of vocational education is further complicated by the different levels of control and management such as Local, Provincial and National as shown in Figure 3.1 above. For example, at the local level, a Board of Management is responsible for teacher and student discipline while the Provincial Division of Education is responsible for the co-ordination of policy, planning and curriculum, staff appointments and salaries. At the National level, the National Department ratifies teacher appointments and salaries, teacher training, staff development curriculum and inspections. The reports from the vocational centres first go to the District Office, which was not apparent in the Preston Report (1989), before going to the Assistant Secretary in the School Services Section. Since vocational education became a provincial function, matters concerning the centres do not get a meaningful hearing at the national level.

The structure of vocational education is such that policy on vocational education remains quite confusing. The 1991 Education Sector Review (National Department of Education) 1991) again reinforces the view that vocational training prepares young people to return to their villages and communities, and there they contribute to developing those areas with the skills learnt in relevant vocational training. It is also expected that the vocational graduates may be involved in the informal sector in small businesses, either in partnership with families or self-employed. Clearly this has further marginalized those centres in urban areas that cater for urban students for wage employment.

The policy on vocational education remains unclear at this stage as revealed by the executive in the interview in 1996; as yet there is no comprehensive official policy. This situation with an uncertain policy has led technical education officers to accuse vocational centres of duplicating the technical education curriculum and graduates of taking jobs that belong to technical graduates in industries (Vilivili interview 1996; Preston 1989). While this may be so, the vocational centre managers interviewed in 1997 boasted of their graduates getting more employment because they had good practical skills and could work in the sun or rain and get their hands dirty, but of course with low wages.

3.3 Summary of Discussion
The key issue surrounding vocational training between the late 1960s and the beginning of the 1970s was 'independence'. Education was seen as being a prime way of preparing the nation for both economic and political independence. Therefore, the programs provided by the administration through the Department of Education were geared towards the ideals of development, particularly the development of the rural villages. While this had been the thinking of government about the purpose of vocational training, it is believed that the people's thinking and views were different. The people saw 'money', they realized what the 'cash economy' could do, and desired jobs. It seemed that people thought independence was going to bring them employment. People saw employment as the way to earning money, not education or training as the primary route.

This chapter showed that the government had a policy that the young people who went to vocational training were to return to their villages and communities to contribute to development. Even though it appeared to be a good idea to prevent the outflow of youths from the rural areas into towns, the implication of this policy was that those who received training from vocational centres were not suitable for formal wage employment in either industry or government. Nevertheless, many found wage employment and a few set up their own business enterprises. But the Department of Education did not change the policy on vocational training. Realizing that industrial jobs are limited, vocational training has been left to more or less look after itself but in a confused state. For instance, there was a time when the sector had no real place in the education system and continued to be uncertain as to whether or not vocational training had a formal status. The non-formal status had implications for resources including the allocation of finance to this sector. In the main, the vocational centres have to look after themselves with very little financial support coming from the government. Their situation has not been improved by uncertainty over which level of government - National or Provincial - has responsibility for various functions. For this reason the vocational training sector suffers and will continue to suffer while this situation remains.
Chapter Four

Eight Case Studies: Vocational Centres

4.0 Introduction

Chapter four presents the documentation on the first eight case studies on vocational training in Papua New Guinea (PNG) followed by Chapter 5 and Chapter 6 providing additional support by referring to other centres. Note that where Port Moresby In-Service College is mentioned in the text, the institute has been renamed the Papua New Guinea Education Institute (PNGEI) under the national education reform. The former name is used to identify the vocational teachers’ educational qualifications, thus giving legitimacy to the awards of certificates and diplomas. Chapter 6 will discuss the details of these awards.

An overview is given which is then followed by descriptions of each of the centres that have been investigated. A summary of the discussions concludes this chapter.

4.1 Overview

What really drives the vocational centres in PNG? Is it as Warren (1967:67) suggested, "directed by the statistical requirements of economic and industrial growth?" or is it because of a government policy?, or is it driven by the human instinct to survive?

This chapter provides the contextual basis to investigate the influences that surround and shape the existence of vocational centres. The centres chosen are locally situated, each with specific histories and within communities with particular cultural practices. These sites serve as a major reference to study the inter-relatedness of the cycle of employment - or the desire for employment - as described in chapter one. At the same time, understanding can be drawn from this reference point about government policy statements that are put into action in programs such as the vocational centres. Furthermore, the chapter gives some opportunity to explore the complexities surrounding government policy and implementation.

In order to gauge the situation of the vocational centres fully, each site is described separately with comparisons drawn between the centres.
4.2 Describing the Vocational Centres

Of the 116 vocational centres reported in the first quarterly report of 1998 (Department of Education 1998), two remain officially closed in the North Solomon Province, one is closed in the National Capital District, one in Sandaun Province and one unofficially closed in the Eastern Highlands Province. Two of the Swiss Mission-operated centres in the Eastern Highlands are not listed though one has been given the status of a 'Permitted' school under the National Department of Education classification. The actual list of vocational centres as seen in Appendix D numbers only 109 centres. Due to poor record keeping and reporting, the statistics on the vocational centres are quite unreliable. Because 109 are actually listed in writing in what should be the best available source, I have decided to use this number of centres for the purpose of this research. Out of the 109 operational centres, thirteen have been selected as sites for this study. Four of these are in the National Capital District, three in Lae, Morobe Province, and six in the Eastern Highlands Province. Although the sites were chosen particularly in terms of accessibility and security, the 1998 fieldwork in the Eastern Highlands centres was influenced by political considerations.

First, the centres in the National Capital District are described and next, followed by those in Lae and the Eastern Highlands. The descriptions do not follow a set pattern though the centres have key areas in common to be investigated and discussed. For example, historical backgrounds, buildings and facilities, finances, teachers and teacher education, students, courses and security are all considered. There are also vocational training-related issues such as the Village Development Scheme, the GTZ Project, the Vocational Secondary Schools; and provision for students with babies, mature-age and married students, and these vary in relevance from centre to centre.

4.2.1 Badili Vocational Training Centre

4.2.1.1 Location

The Badili Vocational Training Centre is located on section 6, allotment 82 on Matirogo Place, near the industrial area of Badili, and along the coast of Port Moresby's Walter Bay (see Map on page xx). The allotment covers an area of about 3.522 hectares of land, a third of which is a reclaimed portion along the sea front (see Plate 4.4). Environmentally, the beachfront appears very unhealthy with plastics and bottles, and such other rubbish washed ashore by the sea with the smell of rot and staleness in the air.
4.2.1.2 History

Badili is a level 5 government co-educational training centre built in 1967 after the Department of Education took over an old building site which had been used for a boat building enterprise (see Plate 4.1). The boat shed became the first building to house the beginnings of what is now the Badili Vocational Centre. The centre began to offer courses in 1968 to train out-of-school youths in various trade skills. The initial courses taught were carpentry, welding, motor mechanics, cane-work, home economics and boat building.

4.2.1.3 Teachers

Badili is the largest of the centres under study with 22 teachers altogether, 4 of them being female. In June of 1998 however, the centre was short-staffed by four, with two positions unfilled and another two staff members away on study leave. Unlike most of the other centres, there is also three ancillary staff employed by the centre. With the exception of two Filipinos, all the teachers are Papua New Guineans. The youngest in the group is estimated to be between 20 and 30 years old but most are between 40 and 50 years old. Mr Soccan, the manager, has a Bachelor's Degree in Science and Industry and a Masters Degree in Educational Administration from the Philippines. The other Filipino teacher, Mr Ricardo Buela, also has a Bachelor's Degree of Science in Industrial Education, a major in Refrigeration and Air-conditioning and a minor in Electrical. The highest level of educational attainment by the PNG teachers is certificate to diploma level.

One of the two male teachers interviewed had a Certificate in Tropical Fisheries while the other had a Tradesman Certificate in Plumbing. To be able to teach in the vocational system, both had teaching certificates from the Port Moresby In-Service College. At the moment Mr Pearson Toho, the teacher with the Fisheries certificate, is undertaking external studies for a Bachelor of Education In-Service Degree with the University of Papua New Guinea. Most female teachers have attained the Certificate in Teaching Home Economics from the Port Moresby In-Service College. Mrs Patricia Geidilo, the only female teacher interviewed in Badili, had a Certificate in Teaching Home Economics. Since the award of the certificate in 1979, she has done two short courses, one in handicrafts for six weeks at the Sideia Vocational Centre, and the other in catering for six months at the Lae Catering School. The catering course was considered quite a rare opportunity as few

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8 The Certificate in Teaching Trade and Agriculture was conducted over one year for male vocational instructors. This program ceased to operate at the end of 1997. Chapter Six discusses further the vocational instructor-training program.
9 Chapter Six will discuss more fully the course on the Certificate and Diploma in Teaching Home Economics.
teachers in the centres have the chance to be sponsored by the Staff Development Unit (SDU) in the Department of Education to do this course.

The years of teaching experience range from 1 to 2 years to about 15 to 20 years. The location of these experiences varies greatly with high rates of change. Since Mrs Geidilo started teaching in 1980, for instance, she has taught in eight different centres including Badili. There are exceptions, however, where some teachers remain in one centre for several years. One of the former Badili Managers, Mr Rosales, for example, has remained in Badili for 19 years. Others have been shifted around to various centres located in the same province or district. Still others are moved around between levels of positions within each centre. Such was the case of the deputy manager, Mr Gordon Awantan, who had an earlier appointment as deputy, then moved back as senior teacher, then back to deputy manager at the time of research. This frequency of movement appears to be a common problem of staff appointments, which is observed in the other centres as well.

Except for ancillary staff wages, the salaries of teachers are a national function, and are therefore funded by the National Department of Education. The dual wages and salaries structure remains as government policy so that the national teachers' salaries range from K150.00 to K300.00 net income per fortnight. The expatriate salaries have an additional K400.00 added to that of the national salaries. With due regard to the current state of staff training and educational attainment by the national teachers, it seems equality in this area has a long way to go, but is not impossible.

4.2.1.4 Management

While the manager administers the day-to-day running of the centre, the major organ of decision-making is the centre's Board of Management. The Board has strong powers, sufficient to either expand or destroy the centre. Fortunately for Badili, the Board has been very supportive in the development of infrastructure, courses and other special projects such as the HANUATEK project (which will be discussed later). The Board is comprised of twelve representatives with a member of the police force, five from the Department of Education including one female inspector, three community representatives, chosen especially from the settlements nearby, one program coordinator, one teachers' representative, and one female representative. Altogether there are three females on the Board of Management. Although the designated female is not usually referred to as an 'equal opportunity representative', the appointment implies that there is an informal policy requiring some representation of women. All the Boards of Management in the vocational centres are similarly constituted, although some like St Therese (to be discussed in 4.2.5) have particular church representation.
4.2.1.5 Finance

Up until the end of 1997, the income for the centres came from about four different sources; namely from parents or sponsors, government subsidies, income generated by the centres themselves and donations from sources such as politicians and local organizations and others such as Rotary Club International. After the transfer of vocational functions to the provinces in 1995, the District Education Board for each province and district set the fees. For Badili, the District Education Board for the National Capital District sets the fees.

Prior to 1998, the tuition fee was about K200.00 per student annually. The National Government subsidy topped this up with another K200.00. The 1998 fees were set at K220.00 to be paid by parents and a K200.00 government subsidy totalling K420.00 per student. This arrangement however was quashed when the Government decided to honour one of its election promises to give free education to schools including vocational centres. According to the manager Mr Soccan, K400.00 per student per term should have been paid. For the 479 students, the centre was set to have received K191,600.00. Instead, the centre received K17,300.00 for first term only. By June 1998, Badili had not received the second term subsidy. The only fee that the District Education Board permits the Board of Management or Parents and Citizens Association to charge is the project fee. As its name implies, this is an additional fee for the purpose of funding projects at the centres. The amount varies from centre to centre depending on individual centre needs. For Badili this has been set at K70.00 per student.

The government subsidy and project fees apply in the same way to all the centres, but with the amounts varying. Depending on the number of students and whether or not all students pay their project fees, some centres are better off financially than others. For instance, Badili with 479 students could have netted annual revenue of K799,930.00 including the project fee. But Morata with 304 students and a subsidy set at K350 per student and K35.00 project fee, could only get K436,240. The question of accountability for this sort of income was raised with the managers and the inspectorate.

The finances raised at the centre together with the subsidies and donations are held at the centre for its own use. The manager has sole responsibility for the centre's financial accounts. The breakdown of these funds for each course is not given for the entire year. The reason is that the yearly budget is only good on paper because of the uncertainties of when and how much money is going to be received. Very often there is no money at the beginning of the year and when funds become available, the budget has to be broken down to accommodate each course's requirements. To
counteract this problem, each section is allocated K1,000.00 each term for the purchases of teaching materials and supplies. As more funds become available, sections make further requests depending on students and course needs. It is a sort of ad hoc planning - not quite knowing what and how much funds will be available to meet any forward plans. Where there are specific major projects such as new workshops or teachers' houses, the funds come directly from the Department of Education.

4.2.1.6 Buildings and Infrastructure

By 1970 at Badili, the trainees built a new staff room with office facilities as part of their carpentry training, and the old manager's house was converted into a classroom to accommodate the increasing demands for home economics classes. One of the special features of Badili is the sense of innovation, to move with the times, so to speak, with regard to building facilities and course offerings that appeal to the urban population. The building of HANUATEK (refer 4.2.1.4), a kind of business house, standing on the reclaimed land along the sea front between 1973 and 1976, was one such example of an innovative approach. The aim of HANUATEK was to provide a facility for Badili graduates to help them set up small business enterprises. In 1976, several graduates established various small-scale businesses such as cane-work, carpentry, copper beating, sewing machine repairs, upholstery and ice block making. HANUATEK was then leased to South Pacific Appropriate Technology Foundation (SPATF) for four years (1978-81) with expanded business activities in book printing, silk screen-printing and locally made gardening tools.

Some of the SPATF staff were expert overseas volunteers who helped further train the Badili graduates in business entrepreneurship. It seems that the four years was not enough time to get the businesses firmly established, so that when some of the overseas volunteers left in 1981, the small businesses began to deteriorate. By 1986, HANUATEK was closed, SPATF was evicted from the Badili premises and there was a loss of income from SPATF rentals for the centre. Two years later, HANUATEK was resurrected and renovated, as the need for additional space became apparent. Some part of HANUATEK was converted into teachers' accommodation and three workshops were set up for fisheries, bricklaying and general woodwork. Additional multi-purpose classroom and display and storage facilities were also built onto the existing home economics building in 1988.

The number of teachers and students has grown from 8 with 153 trainees in 1983 to 12 teachers with 246 trainees in 1988, hence the need for additional buildings. There are 15 staff houses altogether at the centre. Only the married male members of staff occupy these houses. Female staff
members are expected to be housed by their husbands. There was no comment made on unmarried, divorced, or single male and female teachers with regard to accommodation (see Plate 4.3).

In the early 1990s, canteen and kitchen facilities were built to provide the trainees, especially the females, with additional training in trade store management and cooking. A fishpond was constructed and trainees learnt to cultivate talapia\textsuperscript{10}. The Fisheries Section was given a dinghy with an outboard motor, as well as fishing net and various other fishing gears. The welding workshop was equipped with two new welding machines and one new circular metal cut-off machine. Motor mechanics, home economics and upholstery are now considered adequately housed and equipped whereas the panel beating workshop is over-working its two compressors and two spray-guns which are in constant use. The latest additional building is a double high-set classroom, which was built in 1993. Other facilities available at the centre include a plant nursery and a small horticulture plot. Some of the buildings are in good repair, such as the new two storeys building which houses four of the trade courses and one new septic toilet block. Others are much in need of repair and upgrading as the centre prepares to accommodate the required education reform policies. According to the manager, Badili was to begin offering Vocational Secondary School courses in 1998 but due to the state of the available buildings and space, the program will be delayed another year or so. For example, the centre needs a building for a science laboratory and more teachers' accommodation. There was practically no money for new buildings.

4.2.1.7 Curriculum

Much has changed on the land and sea front, the buildings and the course offerings since the centre began 29 years ago. The trade courses offered now continues to separate the males from the females. All male trainees in the first year do exploratory courses before choosing to concentrate on a specific trade in the second and third years. The male courses include sheet metal, outboard motor mechanics, carpentry and joinery, auto mechanics, fishery, plumbing, upholstery, panel beating and spray painting, steel fabricating and welding, brick-laying, cane-work, horticulture, electrical, refrigeration and air conditioning. The female courses cover exploratory subjects in the first year such as basic sewing, basic typing and office procedures, gardening, handicraft, mother craft, personal hygiene, nutrition and cooking. In the second and third years, the female students progress to slightly more advanced courses in cooking and canteen management, typing and office procedures, advanced sewing/dress-making and tailoring (see Plate 4.2).

4.2.1.8 Development Plans

\textsuperscript{10} Talapia is a fresh water fish found in the swampy areas of Port Moresby City and the surrounding villages in the Central Province.
The education reform policies for vocational training appear to fit in well with Badili's own five-year development plans (1998-2002). Academic subjects such as English, mathematics, science and social science will be introduced. It is hoped that the new education reforms will up-grade Badili to vocational secondary or vocational technical to the level that Don Bosco\textsuperscript{15} has reached.

A major and important component of the training introduced in 1985 requires the trainee to undergo "on the job training or practicum" with the various industrial establishments in the city. Some of the firms that provide work are the Hebou Construction Company and Golden Square. The students learn to practise and reinforce skills such as welding, plumbing, office procedures, typing, tailoring and carpentry. This has proven to be a worthwhile exercise and unless the trainee undergoes this portion of the training, she/he cannot graduate. The centre also receives feedback; this comes from various sources, such as industry reports especially on the performance of students' doing on the job training, and from parents of students and graduating students. The reports are positive and commend the work of the centre.

4.2.1.9 Course Duration

Since 1984, Badili has extended the length of its program from one to three years. Very little theory is taught and much time is devoted to practical training. For example, every day thirty minutes is spent on a theory lesson and one hour and ten minutes on practical lesson. For the male trainees, much of the practical work is undertaken outside the centre where certain job offers are made to the centre. As long as 50% of the quoted cost of material is provided, the centre takes the opportunity for their students to experience working on real commercial tasks.

4.2.1.10 Community Links

The community links with groups around the Badili area are considered strong and cordial relationships have been established. Some members of the Board of Management have come from the local community and the nearby squatter settlements. The centre has helped out in community projects such as building residential fences.

4.2.1.11 Students

\textsuperscript{15} Don Bosco schools are named after an American Catholic priest who started these schools. There are two of these schools operating as vocational/technical secondary schools. One is located in Port Moresby and the other in the Gulf Province. The Catholic Church in PNG runs Don Bosco schools.
Badili has a total of 479 trainees with 70 being female. This is the largest number of students in all the centres under study. They have come from varied backgrounds, from in and outside the city. Some have drifted into the city from other provinces and live with either relatives, or wantoks or friends. Others are residents of the NCD and nearby Central Province who live with their parents. There are those who are poor and others who are from the sophisticated contemporary PNG middle-class who also find themselves at the centre. The minimum entry requirement for the Badili Vocational Training is Grade 6 and High School leavers range from Grades 7 to 10.

Although the minimum age for entry is 15 years, ages vary from 14 to 23 years old. Twenty-five trainees, four being female, representing the student body, were interviewed. Of the total number interviewed, twenty-two (88%) were Grade 6 leavers, two (8%) were Grade 8 leavers and only one (4%) a Grade 10 leaver. The trainees selected represented auto mechanics, home economics (including typing, office procedures, cooking and tailoring), upholstery, welding, fisheries, plumbing and sheet metal fabrication. Asked about their views on the centre, the courses, teachers and other students, the majority of the trainees were in agreement that they were happy to be in Badili, to be doing something with their lives. They were happy about their teachers, the courses they were doing and they said that their relationships with other students were generally good. One of the trainees called Eddie said, "Badili is the best school". The female trainees were however mostly shy and very self-conscious. When asked about their own personal security, they readily admitted that they do not feel safe at all outside the centre grounds but it was safer inside.

4.2.1.12 Security

Badili Vocational Centre is a day school. Classes begin at 7.45 a.m. and end at 3.00 p.m. so that the trainees, especially the females, can get home well before dark. Security remains a real concern at the centre. In the first five months of 1998, there were two break and enter incidents, where sewing and welding machines and the outboard motor engine were stolen from the centre at night. The motor engine was fortunately recovered among the bushes, as the thieves were little boys who were unable to carry off the heavy engine. As noted in 4.2.1.11 above, the women are certainly vulnerable to being attacked and/or abused particularly outside the centre grounds.

4.2.1.13 Graduates Employment

One of Badili's unusual initiatives is to help with job placement for its own graduates even though this is in direct conflict to government policy on vocational graduates. In 1985, one of the former managers decided to explore job opportunities in industry and business houses in the city for semi-
skilled workers. Much to his surprise, about 30% of male and female graduates secured formal employment at that time. This gradually increased to 65% in 1991 and by 1992 reached a record of 98%. This clearly coincides with the views of the majority of the trainees, contrary to the policy intentions on vocational training. When the 25 trainees were asked about what they would do when they completed their training, 2 (8%) said they would return to their village or community; 4 (16%) would set up some small business enterprise and the majority of about 19 (76%) preferred to find formal wage employment in the city.

Asked to nominate one important message, during the interview in 1997, to send to the government on the value of vocational training, The manager said, “... looking back, government has neglected vocational education for a long time. ... much money goes to high schools and community schools but vocational training is making up for the loss by these systems. ... without vocational training there will be chaos. ... the government may want to consider a better distribution from the annual education budget”.

4.2.2 Koki Vocational Training Centre

4.2.2.1 Location

Koki Vocational Training Centre is a Level 6 government sponsored co-educational training centre in Port Moresby (see Map on page xx). It is located on a slope directly behind the Koki Community School; on a dry, rocky hillside surrounded by kunai grass (general scientific name is *imperata*, common names are *spear grass* or *sword grass*), with some shady trees at the site itself. It is in the vicinity of the Koki local market, Anderson Foodland and Big Rooster Chicken (see Plate 4.5).

4.2.2.2 History

The centre started as a junior technical school in about 1962 before it was converted into a vocational training centre in 1969. The main aims of the centre were to train the young people of the city in skills for employment and to provide the trainees with literacy and numeracy skills as well as promoting character development for good citizenship. The courses offered then included carpentry, joinery, machinery, motor mechanics, plumbing and welding for the young men. The young women were taught sewing, cooking, typing, correct telephone techniques and health and hygiene.

4.2.2.3 Teachers
There is now 20 teachers altogether, five of them female. All the teachers are Papua New Guineans, one being a naturalized Filipino. The ages of the teachers range from mid to late 20s and from 30 to about 50 51 years old. The teachers' qualifications require first of all, a Grade 10 School Certificate, then a Trade Certificate (through the technical college and apprenticeship scheme) and a teaching certificate (through the vocational instructors' course) for the male teachers. It is also required of their female counterparts that they possess a Grade 10 School Certificate and a Certificate and/or Diploma in Teaching Home Economics as conducted at the Port Moresby In-Service College. At the vocational level, there remains a real division of gender roles so those female teachers do not teach any trade subjects other than home economics and secretarial courses.

I interviewed four of the teachers, three of them senior teachers and heads of sections. Mrs Tetu is the head of the Home Economics Department. She is 30 years old and comes from the Central Province. Mrs Tetu is a Grade 10 school leaver who attended the Port Moresby In-Service College and graduated with the Certificate in Teaching Home Economics in 1985. She has been teaching since 1986. She was appointed Senior Teacher in 1998 and intends to do the Diploma in Teaching Home Economics with the long-term goal of becoming a manageress of a centre. Mr Latima Gelenawa is the head of the Building Department. He is 43 years old and comes from the Milne Bay Province. He has worked his way up from Grade 10 School Leavers' Certificate in 1974 to a Tradesman Certificate in Building in 1978 from the Technical Division of the National Department of Education, through the Apprenticeship Board. Mr Gelenawa did his apprenticeship training in the Works Department then served in the same department for another four years. While employed by the Works Department, Mr Gelenawa studied for the Higher Certificate in Building at the Lae Technical College. This was done in six monthly intervals spread over three years (1981-83) in what is called 'Block Courses'. In 1984 Mr Gelenawa decided to part with the Works Department and join vocational teaching by doing the Certificate in Teaching Trade and Agriculture at the Port Moresby In-Service College. He is a Level 3 teacher and has been head of the Building Department for four years. He is one of the few teachers who are ambitious and a keen learner. Since joining vocational teaching, he has done certificate courses in basic bookkeeping, solar power, wood finishing technology and customer service. One of these courses was self-sponsored; the Staff Development Unit (SDU) funded the rest. The length of the courses varies from one to three weeks. When asked how useful these courses are to his teaching, he said that except for the course on solar power, ideas from the other courses are incorporated into his teaching.

Mr. Aisa is the head of the Mechanics Department. Having been through one of the earliest Junior Technical Schools established in the late 1950s, he is the most senior in age amongst the teachers. He is 51 years old and comes from Central Province. Mr Aisa started off in 1966 to train as a
carpenter at the Junior Technical School behind the Port Moresby Technical College. Because his older brother was already a builder, Mr Aisa changed direction to concentrate on mechanics in 1967. This change transferred him from the Junior Technical School to a trade school in the same locality. The trade school is positioned between the junior technical level and the technical college. Mr Aisa completed his apprenticeship training with Boroko Motors in 1972 and was awarded a Tradesman Certificate in Mechanics from the National Department of Education. While he was with Boroko Motors, the company sponsored him twice to do in-house training in the 'Ford Course on Mechanics' for six months in Lae, and the 'Leaders Training' in the Department of Labour in 1970. In 1979, he joined the Ela Motors Mechanics, Tractor Division, as salesman for just over a year. Then in 1980, he became a foreman on the Higaturu Oil Palm Project in Popondetta for six months.

Mr Aisa's nephew, who was then Co-ordinator for Vocational Centres, recruited him to join the vocational teaching. He did the one-year Vocational Instructors course at the Port Moresby In-service College in 1981 and started teaching in 1982. In his first year of teaching, he was sponsored twice by the Staff Development Unit to do certificate courses in subsistence farming at the Banz Agricultural College, and a welding course at the Mt Hagen Technical College, both were of six weeks duration. In 1985, Mr Aisa taught at the Bulolo Vocational Centre where he was responsible for the school PMV (Public Motor Vehicle) and a Driving School. He became a senior teacher that same year. He was posted back to Port Moresby in 1986 and promoted to Deputy Manager of the Morata Vocational Centre until 1989. Then in 1990, he was demoted to Senior Teacher in Mechanics and posted to Makana, an Agricultural Vocational Centre. In that same year however, he was awarded a two months course in management in Japan. On his return from Japan, he was appointed Deputy Manager but not for long. A problem arose between the centre and the community surrounded by a squatter settlement that led to the closure of the centre. When asked for reasons of the closure, Mr Aisa replied that the security staffs were paid quite well with centre finance, but when there weren't enough funds, 'securities' were not paid. Therefore, the centre got torched, teachers fled and Makana was closed. The District Education Board then decided to transfer the teachers to other centres and Mr Aisa ended up in the Koki Vocational Centre.

According to Mr Aisa, he has not seen what he calls, 'policy of government – the Department of Education on vocational training'. From his links with the colonial Junior Technical and Trade Schools, he observed that there is little difference from what it was. "There is some slight difference in the training given though it seems it was more advanced in the colonial times", he said. He attributed this to them having better facilities, tools, equipment and machinery then. One example of a tool he described was the micro meter, a vernier calliper which is a short, graduated-scale
instrument for measuring small, minute fraction of parts (Webster’s Dictionary) such as metal, pieces of material, that are worn out or need to be removed. "To get exact measurements, special tools are needed. ... colonial period better. ... now qualified teachers but frustrated, ... cried to government, no response, ... except to say, no money", commented Mr Aisa. Then he continued, saying, "Most teachers go to the rubbish dump to pick up machine pieces, for example. ... a dead person doctors cannot raise to life, but we try to raise old, dead materials and modify to make good again". The rubbish dumps serve as a silent resource base for electrical, plumbing, welding and mechanical material supplies for many of the centres, particularly the urban centres.

The last teacher interviewed, Mr Sarea Tore, is the head of the Plumbing and Welding Department. He comes from Gulf/Daru, but lives in Port Moresby and is 44 years old. He went to Port Moresby Technical College and did Grade 9 (then Form 3) in 1969. When school fees were introduced in 1970, his family could not afford them. He joined the Works Department as trainee/apprentice in plumbing from 1970 to 1974, and at the end of that period he received his Tradesman Certificate in Plumbing. For six months in 1975 he was made foreman of the plumbing course with Works Training in Port Moresby. In 1976, Mr Tore resigned from the Works Department and trained to become a teacher at Port Moresby Teachers In-Service College. He was awarded the Certificate in Teaching Trade and Agriculture at the end of 1976. This certificate is the same teaching methods course that qualifies a teacher with a tradesman certificate to teach in the vocational system.

Mr Tore resigned in 1982 from teaching due to ill health and was reinstated in 1986. In 1988 he was Senior Teacher in plumbing at the Makana Vocational Centre in Port Moresby, and Deputy manager in 1989-90 at Badili. He was promoted and transferred to Kiunga Vocational Centre in the Western Province for one year and to Morehead for four years as manager from 1991 to 1995.

While Port Moresby In-Service College provides the only formal training for teachers interested in vocational teaching, the teachers, in their desire to improve their subject knowledge and teaching effectiveness have attempted to do other relatively short courses. This has been demonstrated in the teachers' accounts given above. It would seem however, that little recognition is being given to these personal efforts to improve vocational instruction in terms of remuneration and promotions.

The current manager, Mr Kila Vavari, has been involved in vocational training for 28 years. The rest of the teachers have varying amounts of experience. Some are starting their first year teaching. Others have been teaching from about 7 to 12 years, and a few have 13 to 16 years of teaching experience.
Although the District Education Board makes staff appointments, inspectors do influence the choices as to who should go to which centre and what level of posting should be awarded. According to the manager, the appointments for 1998 have been 'fouled up' so that most staff have been placed in acting positions. Moreover, the manager expressed disappointment that certain inspectors have made no attempt to actually do inspections before writing reports. He cited a case where a certain teacher had been victimized by such an act. Fortunately, the Teaching Service Commission intervened in the matter and the teacher has been reinstated.

4.2.2.4 Management

While the manager administers the day to day running of the centre, a Board of Management makes the major decisions for the centre. The composition of the Board membership is almost the same as for Badili and other centres. Although the functions of the Board of Management are seen to be purely managerial, there has been speculation that the Board has a silent hand in the staff appointment procedures.

4.2.2.5 Students

The total number of students is 420, of whom 68 are females. The entry requirement used to be a pass in Grade 6, 8 and 10. In previous years, an entry test was also given for the selection of students. These practices have ceased and any grade school leaver is accepted up to the age of 24 to 25 years old. The required teacher-student ratio, according to the manager, is 1:15. However, with the influx of students the ratio has risen to 1:21. There are often more students than space can allow for, especially at the beginning of each year. The ages of the students range from 15 to over 20 years old.

The seven students interviewed were aged between 17 and 20 years old. There was one 17 year old, four aged 18, one 19 and one 20 respectively. Five of these students were Grade 6 school leavers and two were from Grade 8. Only one of the students was from Central Province. The rest have come from the Gulf, Western, East Sepik and Oro Provinces. Five of these were third year female trainees who had to do the home economics course. The two male students were both second year carpentry students. It was interesting to note that when the trainees were asked why they went to train at the Koki Vocational Centre, the majority did not seem to know the purpose of being there. Yet when asked what they would do at the completion of their training, the majority wanted to find wage employment. Only three of the seven trainees said they would return to their villages. One
wanted to help her mother sew clothes as a commercial enterprise, and the two carpentry trainees wanted to build good houses in their village and set up some small business.

Students' opinions about the centre are positive and they have a high regard for their teachers. They said that the teachers explain lessons well; so they learn new ideas and work skills, though some of the students feel there is a lack of supervision by teachers some of the time. Their opinion about student colleagues was that they are good and friendly. However, the female students reported that some students do not behave properly. Many of the male trainees talk back to teachers and use bad language (swearing) when talking to the female students. They also smoke both normal tobacco and marijuana as well as drink alcohol, all of which are against the centre rules. On the first day I was at the centre, I observed two groups of students locked outside the gates because they were late. One of these groups was smoking and nobody seemed to care. They were just sitting around aimlessly. The girls also disapproved of the way their male counterparts dressed as if they were street boys. The male students counteract this by saying that the girls have a 'laughing sickness'.

Fridays are reserved as sports day. The disappointing thing about these sporting activities is that the centre has one soccer ball, one basketball, and two table tennis tables with one ball each for the 420 students.

It appears that students do not have much say in what goes on in the centre or have much chance to comment on the courses being taught. "If they like it, they stay, if not they drop out..." says the manager. Some of the reasons attributed to this lack of communication may be seen in what some of the teachers say about the students. Mrs Kavora, a home economics teacher, said, 'Girls' communication skills are very poor. Writing English has real problems with paragraphs, spelling and grammar. Concentration spans about a 10 minutes interval. Practical work is what they enjoy most and do well in it too'.

Another teacher, Mrs Tetu said, "Most Grade 6 leavers find it hard to understand. Teachers need to simplify their words but it takes a lot of time to teach and explain things. Self-confidence is also lacking. Practical side is very good".

Still another teacher, Mr Aisa, commented that students are difficult to control because smoking marijuana has influenced them. Language skills are poor, and he uses English, Pidgin and Motu in his teaching. Mr Aisa found that if material is written on the chalkboard, students can easily copy but if he dictates, they cannot write it. Therefore, it is easier for them to be orally tested instead of being given a written theory test.
Yet still another teacher, Mr Tore, further supported the view that it is difficult to control the students. He said that they could be well behaved in front of you, but once you turn your back, they become badly behaved. He further observed that students from wealthier families behaved better than those from difficult situations. Finally, Mr Gelenawa expressed similar sentiments that reading and understanding is very poor but that the practical work is good.

For these students who lack self-confidence and language skills, especially in English, and are mostly considered competent just with practical work, one wonders how they could have a real say in the administration of their training? The students at the vocational centres are drop-outs, and considered as failures from the main stream of education, and they know it only too well. They are really at the mercy of their teachers and the administration for their own future. At the same time, I noted that the administration and the teachers are also quite fearful of criminal elements in the student body that certain disciplinary actions may not be easily taken against some students.

4.2.2.6 Finance

With regard to the centre budget, much of the income comes from government subsidies. With the free education policy in 1998, the Koki Vocational Centre could only charge a K70 project fee, the same as Badili. Based on K400 per student on previous year's (1997) student numbers, the centre received K22,400 for the first term. This is calculated to be equal to payment for about 56 (13%) of the total students, which showed an increase of 364 (87%) to a total of 420 students. By June, the government had yet to release the funds for second term. About K18,000 is supposedly distributed to each of the four departments for the whole year for operational costs, totalling K72,000. The four departments need the remaining K49,600 in order to perform as expected. At the moment, it is uncertain as to when the subsidies may be received. The project fee of K70 per student may bring in about K29,400 if everyone paid. The project earmarked as top priority is a fence around the whole centre. Unless all the students paid up their project fee, the fence may not be completed.

Where there were difficulties with fees for many parents wanting to send their children to the centre in 1998, their financial burdens have been lifted and more trainees entered the centres. But the government subsidy calculation remains at 56 students to cater for 420 actual students. What it means for the centre though is that when the subsidies and fees are not paid, the centre suffers with student overload and limit resources to provide an effective training program.

4.2.2.7 Curriculum
The courses offered at the centre have changed from when the centre began 29 years ago. The courses remain divided along gender-lines. The male courses include the non-core courses such as carpentry and joinery, building and construction, auto mechanics, welding and fabrication, plumbing and sheet metal, panel beating and spray-painting, brick laying and painting. For the females, under home economics, the subjects include cooking and catering, sewing (see Plates 4.7 and 4.8) and pattern drafting, handicrafts, health and hygiene, home management, backyard gardening, grooming and personal development. Interestingly, typing, computing and office procedures are also taught under home economics.

CODE (College of Distance Education) subjects are compulsory for those who can afford these extra courses. The CODE subjects include English, maths, social science and commerce (these are core subjects, hence given compulsory status). The CODE subjects were introduced in 1995. In 1997, they were put on hold, as no teacher was available to supervise the classes when the manager went on a world tour as a member of the Family Federation of World Peace. In 1998, the CODE classes resumed at Koki.

The students have no choice as to what trade they may want to do. The course is generalized so that classes rotate each week. For instance, for the male students, one class does welding and another carpentry for one week then switches over for the next. It is the same for the females with sewing and cooking or typing classes rotating each week. Other centres such as Badili, Morata and St Therese, have a different approach from Koki where their students do general training in various trades in the first year than concentrate or specialize in one trade in the remaining two years.

The program at Koki Vocational Training Centre is taught over three years. The theory and practical lessons are organized in such a manner that the ratio is 1:4, that is one period of 45 minutes is given to a theory lesson each day and four to practical activities. Another separate period is used for demonstration lessons. The final year students in their last term do a work experience attachment for about two weeks in firms and business companies in the city. For example, the male students are placed in companies such as Hornibrooks where welding skills may be practised and improved and Kamasi No 6 where carpentry and construction students are placed for their work experience. The female students are placed in Luk Poi Wai for clothing work and in Stop-N-Shop, Steamship Trading and other food outlets for their work experience in foods and beverages. During the practical work experience the students are expected to maintain a reasonable standard of dress, build self-confidence, and develop a manner and approach towards a commitment to work and personal development.
4.2.2.8 Buildings and Infrastructure

The buildings and facilities include staff offices, workshops and classrooms, staff housing and a basketball court - all crammed together on the one crowded site. One has to look very hard to find the manager's office, which is located in a building at the top of the hillside behind the trees and carpentry workshop (see Plate 4.6). Three of the buildings are colonial compound type buildings, which are used as classrooms and workshops. The teachers are housed in seven units or flats and eight houses. The ninth house was burnt down by rascals\(^1\) when the occupants were absent from the house. Some of the buildings, especially the workshops, are semi-permanent, for example, built with corrugated iron roofs and without walls or very little timber in the walls. Pipes, not normally used for buildings, have also been utilized in the construction of the non-permanent buildings. These workshops are built roughly just to provide shade.

4.2.2.9 Security

The centre also has a security fence built around it, as it is not very safe. There have been break and enter problems with the theft of tools and clothing. Therefore, there is a need to build a new fence right around the centre as discussed earlier. But the manager of the centre, said, "... it depends on the attitude of the people at the centre. ... if we treat the community people well, then security is not a problem". This is a good approach and does work in many situations. For Koki, the security risk is real and there is a daily threat to lives of students and teachers and families. One of the reasons that the classrooms and offices have been built behind the teachers' houses up on the hillside is for increased security. Of course it does not give the centre a good appearance as an educational institution but good looks are considered insignificant in relation to the importance placed on security.

When asked about the security in the centre, the female students responded saying that boys are 'okay', but it is not safe for the girls. Very often boys from outside the centre chase the girls when they are outside the centre gates. The reason that the gates were closed in the mornings is also for security reasons.

\(^1\) GTZ is the vocational pilot project co-sponsored by the PNG and the German Governments. The project is based on competency skills level training to determine which skills may be rated as a priority for either national or provincial needs. Six Vocational Training Centres were selected as sites for the project. The centres are Kamaliki in the Eastern Highlands Province, Kiunga in Western Province, Cape Rodney in Central Province, Bulolo in Morobe Province, Manus in Manus Province and Raval in East New Britain Province, covering all the regions of PNG.
4.2.2.10 New Developments

Changes since the centre began include a new toilet and showers for students, teachers' houses, one double classroom and various renovations, especially for the area housing the home economics courses where cooking and sewing are taught. Computing is also offered in Koki, which is a delight to the female students. The most popular course in the girls' courses is computing and for the boys it is mechanics. Home economics subjects and agriculture appear to be the courses least attractive to students.

4.2.2.11 Community Links

The main link between the centre and the community has been promoted through the Annual Open Day, which is held in August for all the vocational training centres in the National Capital District. An open day is not held for the rural vocational centres. Like most of the centres in the Capital City, Koki Centre provides services and products upon request from the local business and trading community. These include, for the female students, orders taken for tailoring, catering, photocopying and typing; for the male students, orders taken for barbecue plates and coconut scrapers. Apart from the orders, the Carpentry and Joinery Section in 1980 built wooden toys such as boxes, slippery slides, rocking horses and trolleys, which were donated, to the Cheshire Home in Hohola, Port Moresby. Other items in this donation included bookcases, tables and chairs, thus further strengthening the Koki Centre's links with the community.

4.2.3 Morata Vocational Training Centre

4.2.3.1 Location and History

The Morata Vocational Training Centre is located in one of the major squatter settlements known as Morata Squatter Settlement in the National Capital District, Port Moresby (see Map on page xx).

Unlike other government and co-educational centres, Morata is an initiative of a charity organization. It was built in 1972 by Lions International to assist the community and promote the activities of the club. When the construction of the buildings was completed, Lions International handed over the centre to the Department of Education (see Plate 4.9).

By the middle of the 1980s, the District Education Office in the National Capital District added a home economics classroom and staff toilet to the buildings. In the same period the Department of
Education built the carpentry workshop using the Project Improvement Program funds. The buildings and facilities, as they stand today in the 1990s, are some of the worst seen in centres in the country. They are grim, rusty, old and appear identical to much of the settlement itself. The centre is really in a very poor state.

4.2.3.2 Management

It seems that every year, since 1996 when I came in contact with Morata, the manager at Morata changes. When I first visited in 1996, the manger was Mr Soccan who is now the manager at Badili. When I did some of the interviews by phone in 1997, the manager was Mr Mark, who has since been replaced by Mr Gasi Gabana in 1998. Mr Mark has been promoted to an inspector's position for Oro and Milne Bay Provinces. This means that some information given may bear either Mr Mark or Mr Gabana's name. Some information also changed slightly with differing views of different managers in some instances.

4.2.3.3 Curriculum

The trades skills taught in the beginning were said to involve only two courses - auto mechanics and welding. However, recent interviews have indicated that past and present courses remain the same. That is auto mechanics, welding, carpentry, panel beating and spray-painting, home economics and typing. Since former teachers have moved on and there are no written records of past courses at the centre, it is difficult to confirm either account. I would have thought that since there were only two original classroom buildings and an office built by the Lions Club, it would have been difficult to mount many courses in the early days. Also the typing course component in any centre is often a later addition to home economics. Agriculture is also offered in Morata although it depends on the availability of an agriculture teacher. This year agriculture is taught because a new graduate from Popondetta Agricultural College has joined the staff. Agriculture however is the least attractive course while mechanics remains the most popular. The program is clearly divided on gender lines so that the female students take home economics and typing courses, and the male students take the trade courses.

Morata offers a three-year training program giving a certificate at the completion of training through the Department of Education. The centre provides reports and references. Although the idea of spending more time on practical learning has considerable merit, limited resources prevent sufficient practical learning. For example, after a lesson on welding, instead of doing practical work, the students can only look at pictures of welding. The one consolation here is that students
are able to do 'on-the-job training' with firms such as Ela Motors, Boroko Motors, Morobe Constructions, Bishop Brothers, government offices and clothing companies during the third and final year of training. The students then learn to use machines and equipment that they have seen only in pictures. While in industries the students are expected to practise skills in their particular trades as well as prepare for employment, experience a real job situation and see relevant machines, increase their understanding of what to do in the work place, and gain some self confidence. Office procedures in government offices are also practised as well as food skills.

4.2.3.4 Buildings and Infrastructure

There are 4 staff houses near the centre. One of these has been vacated due to frequent attacks on the life of one teacher, eventually resulting in him being stabbed. The fifth teacher, who is male and married with four children, lives above the panel beating classroom/workshop in a two-room kind of house (see Plate 4.11). One room serves as bedroom while the other as combined lounge, kitchen and dining room. Besides the four children, there are three adults. A live-in house girl is hired to help out while the teacher and his wife go out to work.

At the moment, the one classroom is also used as a workshop. Another building houses the staff offices, toilets, home economics and typing. The third building is used as a workshop for panel beating, plumbing and carpentry. The fourth building is the administration block that also accommodates the storeroom, welding and auto-mechanics (see 4.12). According to Mr Mark, the former manager, the centre buildings need thorough and complete renovation. Much has changed since the centre began - and more since it began a downward trend. The location puts staff and students at risk and because the facilities are poor and have deteriorated so much, the centre has experienced criminal activities where rascals from the settlement break into the buildings and steal things. The deteriorating law and order problems in this little community are demoralizing both for students and staff at the centre.

4.2.3.5 Teachers

The Morata Training Centre has increased from 11 members of staff with two females in 1997 to 15 members, with 3 being females in 1998. The teachers are all Papua New Guineans and mostly come from the Southern Region, Momase and the Highlands. The ages range from 25 to 40 years old. Staff qualifications require Grade 10 and a tradesmen certificate, or home economics or typing/secretarial certificates. Of the 15 teachers, ten have teaching and trade certificates, one with a home economics teaching certificate, one with a typing certificate and two with only trade
certificates. These teachers have now been put on probation until they acquire the teaching certificate. The agriculture teacher has a Certificate in Tropical Agriculture from the Popondetta Agricultural College and a teaching certificate from Goroka. The number of years of work experience ranges from two to twenty-five.

4.2.3.6 Students

The minimum entry requirement for Morata has been Grade 6. In recent years, students have been entering with higher qualifications, including Grades 7, 8, 9 and 10. The centre is a day training centre. There are 304 students, about 101 (33%) of these being females. Their ages range from 15 to 25. Fewer than ten students come from the settlement. The majority come from elsewhere in the city. Some are said to have come from the rural areas to live with relatives in Port Moresby in order to attend vocational training in the city, in the hope that their chances for employment may increase. The students on their application form choose only one course. However, on arrival at the centre, everyone does general studies in first year. In second year the students then concentrate on their chosen trade.

About 32 students were interviewed. Thirteen were class captains and 19 were from a class of auto mechanics. The notion of learning something and becoming somebody in the future featured quite strongly among these students in this poverty-stricken centre. Of the 32 students, only one suggested he might return to the village but even then he said he would still need to have money in order to set up a business. The majority opted to find a job in the city. "I had to go look for a job", said Simpson.

Another, Bien Gabi, added that, "Work is the only option". Still another, Douglas Koke said, "Going back home, no one will be willing to help me. Who will give me money?" Yet another, Ori Toba said, "Now life is mani laif" (Today money is life).

Asked what the students think about the centre, Mr Mark answered, "... some take it for granted and do nothing while some learn some skill. ... others come from the rural areas to do vocational training in the urban centres thinking they will find employment".

Inspite of the poor status of Morata Vocational Centre, many students like being in Morata and are happy there. Many find their teachers helpful and cooperative. Some students however criticize some of their teachers saying that they do not teach the students properly, that their attendance is not good, and proper supervision of students is lacking. Others complained of the centre's lack of
resources. Ori Toba a first year plumbing student said, "Good teachers but we lack tools. *Mipela nogat gutpela tuls*" (We do not have good tools). Another student, Douglas Koke a welding student, added that tools and facilities are the real problem. A mechanics student further complained that he was not getting enough instruction as the two mechanics classes are combined because there is not enough workshop space and there is only one engine between about 39 students (see Plate 4.10).

At the end of the students' training, they go out into the city looking for some form of employment but only a few may find what they are searching for. Mr Mark's final words in the interview on 22 October 1997 expressed his disappointment that instead of politicians preaching, they should be just in their dealings and allocate resources fairly, making sure they go where the needs are. Vocational training should not be used as the first resort to solve the youth unemployment problem.

Mr Gabana added at the interview in April 1998 that even though course names are there and promoted, they are not enough to equip the students for employment due to lack of resources.

### 4.2.3.7 Finance

As in the other centres students and parents no longer pay school fee except K35 in project fee. The subsidy for Morata based on K350 per student @ 304 total number of students is expected to net the centre K106,400 plus the project fee (K35 x 304 students = K10,640) bringing a total of K117,040 for the entire year. However, at the time of interview, only K16,000 had been received for the first quarter of 1998. The centre has fourteen sections, each is allocated K1,000 per quarter. Effectively the centre is left with K2,000 for any new or on-going projects. With the delays and not knowing when subsidies may come, it is not easy to accurately budget the centre's finances for the whole year. So these figures given above only indicate financing prospects.

Advertising for the centre's programs done through the annual Vocational Centres' Open Day in the city, through radio and EM TV Talk Save program, through the Church and by the students themselves through word of mouth.

### 4.2.3.8 Security

Security at the centre is not good at all. The centre opens at 7.30 a. m. and classes end at 3.00 p. m. so that students, especially the female students, can get home before dark. According to the current manager, Mr Gabana, normally Morata experiences two to three break and enter incidents, and stealing each year. One of the major break and enters occurred in June 1997 and thieves got away
with a typewriter, two hand sewing and a facsimile machines. Last Easter, some young men went to
the centre to borrow the centre vehicle. When they were refused, they used force to take the vehicle
at night but after they had used it they returned it safely. With the change in the financing structure,
fear is heightened that the centre cannot refuse anyone registering to do any course. So even though
the current manager prefers only Grade Six leavers who are bright, the centre has relaxed its
admission criterion and accepts any age group, any school leaver and whether or not they are
married. One of the female teachers spoken to said, "We just have to accept anyone, even married
with beards because they said it's free education". The teacher went on to say that a staff member
refusing anyone runs the risk of being attacked. One of the male teachers in fact had already being
attacked.

4.2.3.9 Community Links

Another way for students to help themselves has been with their community links where they do
small construction jobs such as maintenance work on cupboards or help to build verandas and small
garages.

4.2.4 Limana Vocational Training Centre

4.2.4.1 Location and History

I arrived in Limana on a Tuesday morning at about 7.45 a. m. on the 28 April 1998. I took
photographs of the sign board that is placed over the main entrance as I entered. I was impressed
that the little block, which the centre occupies, was already busy with work. Not one person was
standing idle. Everyone was doing something - cutting and weeding the grass, sweeping, cleaning
and tidying up the grounds, the classrooms and the offices. Underneath a nut tree near one of the
classrooms was a stand which serves as a locker for the students to hang all their bilums\footnote{\textit{Bilum} is a locally made expandable string bag. It comes in different sizes with slight variations in shape and beautiful colored patterns and designs. Some bilum makers choose to decorate their bilums with feathers and tiny seashells. Bilums are usually made from local fibre but more and more bilum makers are turning to imported natural and synthetic woollen fibres. Although they cost money they are readily available.} and other bags (see Plates 4.14 and 4.15). Beautiful bougainvillea and other flowers surround the centre. As I
was early, I waited until the cleaning up was completed and students moved into their classrooms
for their first lesson, a religious instruction class.

Limana Vocational Centre is a Level 5, Catholic Agency Centre catering for young women day
students only. It is located within the city of Port Moresby along Godwit Road in the suburb of
Gordons (see Map on page xx). The centre began in 1972 at the Loreto Hostel when it was started by a Catholic Sister (nun) with four to seven girls before being relocated to the present site. At Limana there were four teachers and about 60 to 70 students to start with. The program offered included courses in cash register, typing, switchboard operating and home economics. In the home economics course, subjects such as sewing, cooking, home management, personal hygiene, grooming and handicrafts were taught (see Plate 4.16).

Over the last twenty years or so, buildings and facilities in Limana have been changed and new ones have been added. From the four classrooms to start with, there are now seven additional rooms. These include classrooms, kitchen, canteen, plant nursery and an incinerator. There is also one large court that serves as a basketball, netball and volleyball court. The most recent addition is a typing and computer room. There is no staff housing on campus except for the Catholic Mission office and accommodation in the vicinity of the centre.

4.2.4.2 Goals and Objectives

Limana embraces the National Goals and Directive Principles of Integrated Human Development as stated in the PNG National Constitution (Brunton and Colquhoun-Kerr 1984) as the basis of the centre's philosophy (Limana Vocational Centre 1998). Limana also has a Mission Statement claiming that it will equip the young women with the necessary abilities and skills for nation building. The Aims and Objectives set out in the Handbook\(^{18}\) are as follows:

**Aims of Limana**

- To take graduates from Grades 6 to 8 and train them in vocational skills and academic knowledge

- To help the young women develop their Christian character and values to enable them to make sound moral judgements

- To help the young women develop sound work habits, self-confidence, honesty and respect for others and an attitude of self-giving

**Objectives of Limana**

\(^{18}\) The Limana Vocational Centre Handbook (1998) which is unpublished, contains details of Limana's philosophy, mission statement and other details.
• To provide pastoral care for girls, to ensure they become well-adjusted women
• To assist the graduates obtain employment
• To assist each girl becomes more responsive as a person and more accepting of herself as a person
• To educate the girls on "women's rights" especially by a concern to end gender based violence

4.2.4.3 Management

As the Catholic Church owns the centre, a Board of Management (BOM) and the Students Representative Council (SRC) meet once a term. The normal daily management of the centre is the responsibility of the manageress and a senior teacher. The centre also has a Parents Group (PG) which assists in various activities such as teaching culture and handicrafts helps in fund-raising and as contacts in the community. One of the parents is represented on the BOM and another assists in the management of the accounts of the centre.

4.2.4.4 Curriculum

Under the Education Reform of the National Department of Education, Limana has been one of those selected to become a Vocational Secondary School. Therefore, Limana offers a three-year vocational training program in 1998 for Grade 7, 8 and 9. It is hoped that Grade 10 courses will be included in 1999. The courses offered for 1998 were as follows:

• Christian education and guidance
• English
• mathematics
• social science
• office procedure
• sewing
• hospitality
• traditional practices

At the time of my visit, the centre was operating as a normal vocational centre. There were typing and computer classes, and sewing, handicraft and cookery lessons were going on. There seems to be
some problem in the administration and a new manageress has been appointed. A new timetable was being worked at and it was not certain when the centre will really operate as a high school. The program also covers one month of work experience for all second and third year students in either the second or third terms. This is an important exercise to determine the capabilities and aptitudes of each student. Both the employer and the trainee provide evaluation reports to the school and these are kept on file for reference.

4.2.4.5 Finance

Until 1997, the finances of the centre depended greatly on parents of students through school fees and on fund-raising by the centre itself. The canteen takings earn the centre about K600 per month. Other fund-raising activities include students' produce from class work and agriculture, such as clothing and cabbage sales, as well as catering for government departments and organization meetings. With the change in government policy to provide free education, the centre has relied heavily on this source of funding though it continues its own fund-raising activities. The first quarter of 1997 brought in a cheque of K5,200 being a part payment of the subsidy. Subsidies for the three remaining quarters were not paid until the first term of 1998 when a cheque of K14,900 was received. Around the same time, the subsidy for the first quarter of 1998, about K6,213 was received giving a total of K20,100. However, on the basis of 115 students at K350 per student, the centre expects a total subsidy of approximately K40,250 for 1998. There is no real detail of the budget available at the moment and it is not certain what major or minor expenses there may be. In 1992 the centre borrowed K45,000 from one of the commercial banks and built a large double classroom building which now houses the computer and typing classes. This loan was paid off in 1994 through the canteen and catering services.

4.2.4.6 Teachers

There are nine (9) female teachers, all being PNG Nationals (see Plate 4.13). The manageress, Mrs Marina Arere, was originally trained for primary school teaching. After thirteen (13) years of teaching in primary schools, she decided to shift to vocational training. She is a graduate of Busu High School, Form II (Grade 8). She has Certificates in Teaching Primary School and Home Economics, and has over twenty (20) years of teaching experience behind her. She is from Central Province and is married with five grown up children. The Deputy Manageress, Mrs Rallen Mau, is from the North Solomons Province and is married with one child. She completed Grade 10 in 1986 then proceeded to Port Moresby In-Service College where she obtained the Certificate in Teaching Home Economics in 1988. She joined Limana in 1989.
Mrs Barbara Rubeia is a 31 years old teacher from the Milne Bay Province. She completed Grade 10 in 1986 then attended Port Moresby In-Service College for two years. After graduating in 1988 with the Certificate in Teaching Home Economics, she joined the Koki Vocational Centre teaching staff for nine (9) years before transferring to Limana in 1998. Mrs Rubeia feels needed by the students and enjoys teaching at the centre.

Miss Janet David is one of the two youngest teachers, of about 24 years old, and comes from the Milne Bay Province. She is one of the few who completed Grade 12 in 1993 and decided to become a vocational teacher. She proceeded to the Port Moresby In-Service College in 1994 and completed the three years of the Diploma in Teaching Home Economics in 1996. She then joined Limana in 1997 and has since remained there. For a long time she had always wanted to bake, sew and do home management. Being involved with vocational teaching gives her the opportunity to do what she wants but most importantly, to pass on skills to many more young girls.

Mrs Cauthilda Koriwa is from Oro Province. She is 28 years old and married with four children. She completed Grade 10 in 1986 then went on to Port Moresby In-Service College where she graduated with a Certificate in Teaching Home Economics in 1988. Since then she has taught in Badili, Koki, Morata, Kavari and the YWCA (Young Women Christian Association) vocational centres. In 1996, Mrs Koriwa decided to stay home for the year and be with her young children. She rejoined teaching in 1997 at the Limana Vocational Centre.

Another teacher, Mrs Teuila Haung, is 35 years old and comes from Central Province. She completed Grade 10 in 1979 and proceeded to do the Certificate in Teaching Home Economics at the Port Moresby In-Service College. Before transferring to Limana in 1997, Mrs Haung taught in Marshall Lagoon from 1982 to 1983 and Popondetta from 1984 to 1996. She has four children and finds that her knowledge and skills in food preparation and garment construction are useful, and the income from teaching helps her cope with family needs. In 1983, she attended a handicraft workshop for six weeks at the Port Moresby In-Service College. Then in 1992 she began a series of courses at the University of Papua New Guinea, Goroka Campus, for the Advanced Diploma in Teaching Home Economics. This program covered seven weeks of lectures on campus and assignments by correspondence. She completed three courses and has another three to finish. Unfortunately, funds are not available for her to complete the remaining three courses. The lecturer involved has since terminated her contract and returned to the United States of America. No one has replaced her. Goroka has now become the University of Goroka offering a degree program. Hence, the status of the Advanced Diploma remains uncertain. Mrs Haung says that she is still waiting.
The next three teachers have lightly different backgrounds from others entering vocational teaching. Mrs Fiona Sudan is about 30 years old and comes from Milne Bay Province. She acquired a Certificate in Teaching Primary School from the Madang Teachers’ College in 1978 after completing Grade 10 in 1976. Her first posting was Menyanya Primary School before being transferred to Igam Primary School in Lae for another year. While at Igam she got married and gave up teaching. Then in 1982 she did a typing course at the Alu Signs Commercial Training Centre by self-sponsorship. She did so well that Alu Signs asked her to teach at the centre. She did it for a year then resigned and worked for a Japanese company for five years. The working conditions were good and she enjoyed working for the company. Unavoidably, her husband took long service leave and she had to give up her job and she went to the village with the family. On return from her husband’s leave, she enquired from the Department of Education about returning to teaching. A typing teacher was required for Kavari Vocational Centre. She readily accepted the position and taught there for two years before moving on to the Badili, the YWCA and now the Limana Vocational Centre.

Sister Mary Angela is a Catholic nun who is 38 years old and comes from Milne Bay Province. She had an interesting educational path that eventually led her to teaching in vocational centres. She completed Standard VI (Grade 6) in 1970, and then did vocational training at the Sideia Vocational Training Centre for three years. Afterwards she went to the Port Moresby In-Service College and did the Certificate in Teaching Home Economics for one and a half years only, but was registered as a vocational teacher by the Department of Education in 1977. Her contact with the Catholic Church developed into an interest in pursuing a religious life. In 1978 she joined the religious order of Our Lady of the Sacred Heart on Yule Island for a three-year training period. She spent another year at the Morata Sisters’ Home without teaching but experienced more of a religious life. In 1983 she was given her first posting at the Limana Vocational Centre for two years then joined the Goroka Sister’s Home for a further year of religious life. During the year in Goroka, Sr Mary started on a series of CODE studies from Grades 7 to Grade 10. The church, specifically her religious order, paid the cost of these studies. She had completed Grade 10 through the correspondence scheme by 1985 but said she was not awarded the Grade 10 Certificate. Sr Mary’s main objective is to help the young people with what she has learned by teaching at the vocational level. She hopes that what she teaches will help the young women become good future mothers.

Another interesting member of staff is a teacher called Ms Lillian Pais, a 24 year old from North Solomons Province. She did Grade 10 at the Hulheta High School but due to the Bougainville Crisis, she repeated Grade 10 at Rabaul High School in 1991. She then proceeded to Port Moresby where she went to a private typing school called the 'Key Typing School' and trained as a
Secretary/Typist. After receiving a certificate in secretarial work, she was employed by the K K Kingston Pty Ltd in 1983 and 1984. She then married and stayed home for about two years raising a family. In November of 1996, she decided to rejoin the workforce with an American communications company dealing with computers. Due to pressure and poor work relations, she resigned in April 1998 and joined Limana as a computer teacher even though she has no teaching certificate. Her main aim is to transfer and/or share her knowledge and skills of computing with the young women trainees and teachers at the centre. Besides teaching the students, she also conducts some in-house in-service training for the teachers. Contrary to what is believed about wages in the private sector - that wages are better - Ms Pais revealed that wages in the Limana Centre are much better than what she was being paid in the computer company. For example, she gets gross K265 and net K230 from Limana per fortnight but with the private company, she was paid K160, a flat rate per fortnight. She says that the computer company made a lot of money but wages for employees, especially nationals, is low. Ms Pais also observed that training offers better prospects in the public sector than in the private sector.

Comments and suggestions commonly expressed by the teachers in Limana showed the teachers' concerns and the neglect by the Department of Education of this sector of training. The teachers feel that for Limana to become a reformed vocational centre it should have been given ample time to prepare to change from vocational to a high school level. This should have taken the form of teacher refresher courses and in-service training (currently non-existent). Moreover, creating an awareness of the new tasks and adapting and modifying the curriculum would greatly benefit both teachers and students, and of course those in the process of becoming vocational secondary schools.

At the moment nothing is being prepared specifically for vocational secondary schools. Instead, the centre is advised to use the normal Grade 7, 8 and 9 high school textbooks and teaching materials, which the teachers were not trained to use. There is also a lack of other resources such as a computer printer, facsimile machine, chairs for students in the computer room and library books especially for business communications, computing, typing, tailoring, catering, cookery and so on. Some of the teachers also commented that the teachers should specialize in specific trades so that their subject knowledge will be sound and stronger, and their teaching more effective. Others also said that the current syllabus should be improved and be made more relevant to include health issues such as HIV/AIDS (Acquired Immune Deficiency Syndrome) and malaria, and how disease spreads and may be controlled.

At the same time, concerns were also raised that many of the students are Grade 6 school leavers and sometimes there are just too many subjects taught, making it difficult for them to absorb and
assimilate new knowledge. Furthermore, another teacher suggested that some sort of acknowledgment or recognition should be given to teachers and centres to boost morale and confidence. Also, they said that there should be some sort of fund or credit scheme to help start up business enterprises; or that the centres should set up awards that provide graduating students with, say, sewing machines and related equipment for the girls and a tool box with tools for the boys to help them get started in their own businesses.

A final comment was directed at vocational teacher education and training. It seems there is some tension between those with certificates and those with diplomas. Those with certificates complained that the three-year diploma was a waste of time, and it was not productive, yet for diploma holders the income level was higher of course, than for those with the certificate. The teachers suggested that the entry level for the diploma in teacher training needs to be reconsidered, as the majority were Grade 10 leavers and not Grade 12 with matriculation status.

4.2.4.7 Students

There are 115 students at Limana, all being PNG Nationals and being females. While the teaching staff seems to have come mostly from Milne Bay Province, the students come from much more widely across the country. Olley Kula is a third year student who is 19 years old and comes from the Central Province. She is also the Head Girl of the centre. Asked why she went to Limana, she responded that she completed Grade 8 and wanted to get training that would help her set up her own business in food services of some sort. She wanted to learn about catering and business manners and etiquette. She also wanted to do computing/typing and learn to sew dresses. When questioned about where the money was coming from for the business, she said she would have to find a job first, save up, and then set up a business.

Julie Kyapo is the Vice Head Girl. She is 17 years old and comes from the Western Highlands Province. She completed Grade 6 in 1992 and stayed home providing childcare for her youngest brother for four years. In 1996, she left the Western Highlands and travelled to Port Moresby with an uncle. For one year she was doing nothing more than just helping out at her uncle's house. She realized there was no future in just staying in her uncle's house. She wanted to find a job so that she could help her parents back in the Western Highlands but she had no skills for work in town. Julie later heard about the Limana Vocational Centre and asked her uncle to help her. She was so pleased to get a placing in Limana in 1997. Her big aim now is to finish her training and first find a job in the city before returning to the Western Highlands.
Agripina Koae completed Grade Eight in 1996. She is 16 years old and comes from the Gulf Province. When she left school, she just stayed home helping with the housework. Her father is a police officer and her mother works with the Port Moresby Water Board as a secretary. She came to the Limana Centre because she wanted to learn to type, sew dresses and learn to do handicrafts. This she hopes will help her find a job.

Ivy Nobi is a Grade 6 leaver who stayed in her home village at Ealema near Alotau in Milne Bay Province from 1991 to 1996. She is 19 years old. While in the village she helped her parents with housework and gardening. Occasionally she baby-sits her aunt's children and was paid K20 as pocket money. Then another aunt took her to Port Moresby to baby-sit the aunt's baby. She was rewarded with K20 per fortnight. In 1998 Ivy entered Limana to learn to type and do computing as well as cooking and sewing in the hope that she will find work.

Rose Peter is also a Grade 6 leaver who returned home to Rabaul in East New Britain Province after completing primary school in 1994. She remained in the village with her grandparents for two years. While in the village she helped her grandparents mainly with housework and gardening. She also helped look after her aunt's five young children. In 1997 Rose went back to her parents in Port Moresby and again she just stayed home doing nothing very worthwhile. Later on in the same year, her parents learned of Limana's good name and decided to get her registered for training there. Her main aim now is to learn skills in typing and home management; and study social science, mathematics and English. It is her hope that this will help her find a job in the city.

Belinda Abau is 16 years old and is a Class Captain and in her second year at the centre. She comes from Kairuku in Central Province. She left school at the end of Grade 8 in 1996 due to non-payment of school fees at the Mainohana High School. The fee was K600 and her parents found they could not afford it. She is quite happy at Limana and hopes to find an office secretarial job when she completes her training in 1999.

Janet Tom is from Hula also in Central Province and she is 17 years old. She completed Grade 6 in 1995 and spent the following year at home baby-sitting her younger brother and helping her parents with housework and gardening. During New Year celebrations in 1997, her cousin Olley Kula (head girl of the centre), told Janet Tom about Limana. On hearing about the program, she decided to go to Limana. "I want to learn office procedures, computing and typing. ... I want to work in an office. ... I want to, like, become a secretary", she said. Her main aim is to find an office job when she completes her training.
The eighth and the last student interviewed was Brigit Cyprian from Sagarai in Milne Bay Province. She is 18 years old and a Grade 6 leaver in 1994. In 1995 she stayed home baby-sitting her aunt's children in Port Moresby. Her family then looked for a vocational centre and found Limana could take her in 1996. She wanted to become a typist or receptionist. Asked why, she replied that it was her dream back in primary school that this was what she wanted to be. This interest began when her father took her to a Catholic priest's office in Alotau town where the priest teased her about whether she could type as the priest was typing his own work. She was fascinated watching him type and ever since then she was interested in typing. When she completes her training at the end of this year, she would like to look for a job. If she cannot find a job then she will return to Sagarai and help the youth to do something.

The majority of the students agreed that because the centre is church owned, and operated by church rules and conditions, it is a good and well-disciplined centre. It has a friendly and pleasant atmosphere. The teachers, according to the students, are friendly and very helpful. The young women students are often treated as daughters in many instances so that the students are encouraged to talk to the teachers and share their problems. The teachers are said to be understanding and helpful. In terms of teaching and learning, the students' comments suggest that the teaching of the traditional subjects concerned with food, clothing, handicrafts and practical work is good. Teachers made sure, for instance, that stitching was correct even if it meant a repeat of the explanation and the stitching. Also the introduction of typing and computing courses as well as catering services are considered worthwhile additions to the program at Limana. Many of the students are happy that they are learning new things. Janet Tom said, "I learn so many different things I have not learned before". Another student Julie Kyapo added, "You know this is a city and many things work with computers and typing. ... I am happy and I feel good to learn them". Other comments and suggestions showed the need for teachers' upgrading programs - refresher and retraining especially to prepare for the introduction of secondary school classes into vocational centres. Ivy Nogi said, "Hospitality and tourism, I want more explanation. For example, working in hotels, now I am not confident to work in a hotel at the present time".

Another student Belinda Abau added, "We need more explanation in social science especially about history, culture and traditions".

Julie Kyapo further commented that it was five weeks into the term and they have not had any lessons on hospitality, tourism, office procedure, cash registers and typing. This class of second year students was only doing sewing and crafts. Olley Kula suggested she wanted
to learn more about business communication and computing together with mathematics and English, as well as sewing.

Further suggestions by the students about what they want include:

- more library and text books, especially for academic subjects
- more practise for typing/computing
- abolition of the scheme where students man the telephone each day as it hinders class time, and they want
- more teachers especially for academic subjects

This, according to Brigit Cyprian, would help the teachers so that they do not just select the easy subjects to teach and leave the rest untaught.

Student relationships with each other are generally good, although there are some students who are difficult to manage. Julie Kyapo, the student Vice-Captain of the centre, says she and the Captain Olley Kula try to control some of the worst students. The bad students are believed to have come from homes where parents always fight and those students are now setting a bad example at the centre. However, the student leaders are hopeful that together with the teachers and with the students' co-operation, they may try solving some of the discipline and other social problems. One of the big problems, according to Rose Peter, is the girls' gossiping about each other. The Head Girl believes the students do not know their rights as students, and that it is her job to talk to them about their rights.

Commenting on students, Br Michael said, "The problem with the girls is that they have been conditioned not to speak up". He also added that the girls have wonderful qualities and it is up to the teacher to bring them out. Br Michael then quoted St Francis de Sales, the 16th century Bishop of Geneva, saying, "You can catch a fly with a teaspoon of honey better than with a barrel of vinegar": a little praise goes a long way. The girls need encouragement and acknowledgement where it is due to help increase their self-esteem. Other teachers commented on the students' lack of, or difficulty in, understanding in certain concepts especially by the Grade 6 school leavers. However, the students are eager to learn. They want to better themselves and their families.

4.2.4.8 Security
With regards to security and safety of teachers and students, Limana is said to be generally safe. It is a day school and the Catholic Church accommodation where Brother Michael Knight CFC, Chair of BOM and others live is within the vicinity of the centre. This helps to provide security after hours. The centre is open between 7.30 a.m. and closes at 4.00 p.m. but classes end at 3.30 p.m. and students are permitted to leave soon after unless required to do some cleaning up. The real danger is in the buses, at the bus stops and in the market. One teacher reported being attacked four times in Koki at a bus stop especially when she was pregnant. She was discouraged but could not give up her career so she continued teaching. Another teacher said that on 'fortnights' (that is, the fortnightly pay days) it is often risky days to go in buses because of drunkards while some of the teachers and students have to change buses and it is not safe waiting for buses. She said, "It is 50/50 safe". The students interviewed said the same things and added that for their safety they accompany each other and go together to the bus stops and travel together as much as it is possible. The girls also try not to get late buses as this worries their parents as well.

4.2.4.9 Recruitment

Information about the program at Limana is made available through the centre's Open Days and through the catering services. The most common way is by word of mouth and through the graduates' employment and community contacts.

4.2.5 St Therese Vocational Training Centre

4.2.5.1 Location

St Therese Vocational Training Centre is an all girls Roman Catholic Church agency training centre. It is probably the most prestigious of all the centres in terms of buildings and revenue. All staff are female, and they have female students only to train. St Therese is located in Morobe Province about two kilometres from the main Lae town centre. To find the centre, the best direction to take is to follow the Butibam Road, which leads to the PNC University of Technology. Along this road is the Kamkumun Market on the left-hand side, just after the bridge that crosses the Bumbu River. Directly opposite the market is Hata Bieng Street, which finally leads to the St Therese Vocational Training Centre on the left-hand side of the street. The centre is within walking distance of the Kamkumum Market (see Map on page xx). The site itself is within the Catholic Mission block housing the Catholic Study Centre and the Catholic Mothers' Club. The study centre is equivalent to the government-run CODE (College of Distance Education) where distance
education is offered to Grades 7, 8 and 9. The Mothers’ Club offers some basic training to Catholic women in the Lae area on sewing, cooking and handicrafts.

4.2.5.2 History

The St Therese Vocational Training Centre was first established in 1986 in what is now the College of Distance Education in Lae. St Therese was however within the Catholic Study Centre. In 1987 it was registered under St Joseph Technical School as ‘Home Economics - St Joseph Girls Certificate’. Due to the increasing number of girls becoming interested in vocational training, the Board of Management (BOM) decided to separate the Home Economics training for the girls. This resulted in the move to Hata Bieng with a complete set of new buildings in 1989. The centre then became registered as St Therese Vocational Training Centre.

4.2.5.3 Goals and Objectives

St Therese is a Level 4 centre, which means that the manageress is not exempted from teaching. The objective of this centre is to encourage and train the young women to become good mothers, to learn about Christian living and to learn skills for either wage or self-employment. It follows then that the course taught is home economics including the subjects of sewing, childcare, handicrafts, laundry, home management and cooking (see Plate 4:17). Religious instruction and sports are also taught. At the end of the two years of training, the young women are awarded the vocational training certificate.

4.2.5.4 Buildings and Infrastructure

The building and facilities include two double-story buildings, toilet facilities, four staff houses and an out-door traditional cooking facility. The top floors of the two-story buildings are used as classrooms where theory lessons are taught. The ground floors are divided into six separate rooms. One is the staff-room and the library, two rooms are for sewing, there is one each for cooking and laundry, and the remaining room is said to be ‘open space’ where meetings and other functions may be held. The rooms are quite large, spacious and well equipped, unlike those in most of the other vocational training centres. For instance, the sewing rooms are supplied with 60 sewing machines, the cooking rooms with five gas stoves/ovens, five portable gas stoves and sets of cutlery and other material supplies. There is also one wood stove for out-door cooking. The buildings are well looked after in terms of maintenance and repairs. As a routine task, the students also keep the grounds clean (see Plate 4.18).
Looking back as to what may have changed since the training centre started, the manageress, Mrs Faunt, in a telephone interview on 27 October 1997 said, "... the location and the buildings have changed but the curriculum remains the same except for the subject of child care". The child care subject was dropped from the home economics curriculum for two reasons: the teachers have had no proper training in the subject and the students were negative about studying child care, perhaps because of their young age.

4.2.5.5 Teachers

There are seven female teachers, one librarian and a male chaplain who teaches religious instruction at the centre. Both the manageress and the vice manageress, and all the teachers are indigenous Papua New Guineans. They come from Manus, Milne Bay, Morobe, Madang, East New Britain and North Solomon Provinces. The ages of the teachers range from the late 20s to 46 years old. All the teachers are married except for the chaplain. A general discussion was held with all the teachers and one substantial interview with one teacher.

The required teaching qualifications are the Certificate in Teaching Trade and Agriculture and the Certificate and/or Diploma in Teaching Home Economics from the Port Moresby In-Service College. The manageress, however, has a Diploma in Secondary Teaching specialized in Mathematics and Expressive Arts from the then Goroka Teachers' College. Another teacher has a diploma specializing in cooking from an institute in Manila, Philippines; and another has a primary school teaching certificate. Most of the remaining teachers have had their training in home economics at the Port Moresby In-Service College. The librarian has attended a local short library course only. The teachers on average have had between 7 to 23 years of teaching experience in vocational training. The national teachers' salaries range from K225.00 to K300.00 net income, which slightly differs from Badili where members of staff get between K150.00 to K300.00 per fortnight. The amount of net income depends on deductions such as tax deductions, PNG Teachers Savings and Loans, and Kwila Insurance.

During the 1996 interviews, the teachers expressed frustration that they had work experience but have no paper to show for it. They regretted that there are institutions to train primary and high school teachers but not for those intending to do vocational teaching. What they desired was further training to up-grade their subject knowledge and improve their skills. The teachers also wanted to learn new knowledge and skills such as computing. This is the general cry of the students in the centres as seen in the case of Morata, and the staff need refresher courses as well as up grading and the chance to learn new skills both in their specialized trades and in their general teaching practice.
4.2.5.6 Curriculum

The vocational training program at St Therese provides a home economics course where subjects such as cooking, sewing and home management are taught. Then there is what are known as the core subjects of mathematics, social science, English and science. These are more or less supportive subjects to enhance the comprehension of home economics subjects. Other general subjects include guidance, religious instruction, sports, music and cultural studies. Guidance provides pastoral care and careers information.

The minimum length of vocational training is two years compulsory, and one year is offered as an option for interested graduates. The first two years provide basic training in all subjects. The third year offers advanced training in both sewing and cooking for interested graduates.

St Therese vocational training is very practically oriented. Unlike Morata where students look at pictures for practical lessons, St Therese allocates 24 hours (3/5 of time) out of the 40 hours per week to practical skills training. The remaining 16 hours (2/5 of time) is used for teaching theory. The centre aims to provide even more practical training. In order to achieve this aim, the second and final year students do two weeks on work experience with various business houses and firms in Lae city. The supervisor at the firm provides a general report on a student sent to that work place. This work experience part of the training is more accessible to the city trainees than to those in the rural areas. The rural areas do not have the same opportunities simply because the industries are lacking. This is one of the reasons that the manager of the Morata Centre, Mr Mark, pointed out that many rural Grade 6 drop-outs come to do vocational training in the city with the hope of finding employment. The companies involved in Lae are the Morobe Biscuit Company Ltd., Image Wear (a clothing company) and pastoral centres of the Catholic Church. While the trainees practise their skills in the clothing and foods areas, Mrs Faunt during the interview emphasized the main aims of the work experience were:

- to gain self-confidence
- to learn about making a commitment to work
- to gain training in courtesy
- to experience the world of work
Although 'on-the-job training' is recognized as a very useful exercise, Mrs Faunt said it is difficult trying to make arrangements, first with parents of students and secondly with the companies. Sometimes requests were totally ignored by businesses. One possible reason is that the private sector is not officially made aware of the need for vocational training. Because of this lack of official awareness, the private sector has no obligation to respond and/or show a willingness to accommodate a two-week public sector training program. Furthermore, what rewards there are to the private sector in such an arrangement are not clearly defined. The private sector in general is not sufficiently aware of its role in public sector training. St Therese and all urban and semi-urban centres are, in a way, making demands on the private sector in their own local areas. The needs and problems associated with 'work experience' are more or less great, but common to all centres. Therefore, it is fair to suggest that government, through the Department of Education, should take up the case for vocational training centres and hold a dialogue with the private sector about creating a scheme similar to the apprenticeship scheme for technical trainees. For St Therese, work experience provides a link with both the business and local communities in general; hence it is an important component of its annual program.

When the training centre began, the entry requirement for the students was Grade 6 and a compulsory entry test. This procedure began as a result of the Board of Management's decision to try and get the best students. St Therese began in the 1980s when Non-Government Organizations (NGO) and private sector training were almost unheard of, and an increasing number of Grade 6 drop-outs were flocking into the vocational centres. Many of the school dropouts, however, attended vocational training out of the desire of their parents. It is a dilemma that many families face when their children can go no further than Grade 6 schooling, and they must either stay home and do nothing or go to vocational training - it is heart-breaking because high school is perceived to be more promising for employment. Places in secondary schools however, are limited and there is not much choice elsewhere for further education and training. Today the entry test has been abolished and the centre takes in those interested from the Grade 6, 7, 8, 9 and 10 school leavers. Grades 6 to 9 leavers are placed together to do the two-year Basic Home Economics Course while Grade 10 entrants are placed in the third year of the Advanced Sewing and Cooking Course. The Grade 10 school leavers will have done Grade 10 Home Economics in the secondary schools.

4.2.5.7 Finance

The centre is a day training centre requiring only tuition fees. Each student pays a K50 project fee and the centre receives the government school subsidy of K350 per student, totalling K40,000 a year. The Catholic Mission initially provided the buildings and furniture without any plans for
future maintenance. The centre is now responsible for its total budget, raising its own revenue through the collection of the student project fee, sale of products made by students, occasional donations from business houses in Lae, and government school subsidies. Some politicians may also help such as the Member for Lae, Mr Bart Philemon, who has donated K20,000.00 to the centre in the last year or so. The money has been used to paint the buildings, build an iron fence around the centre for security and buy a new lawn mower.

4.2.5.8 Students

Since the centre is a girls' training centre, all the students are, of course, females whose number has recently dropped from 110 to 100 students but the centre has the capacity to take 150 to 200 students. Their ages range from 14 to 18 years. There was, however, a girl from Bougainville who was 24 years old, but due to the Bougainville crisis she was accepted. The students have no choice in selecting what course to do in the first two years of their training, and as mentioned earlier, there is only the home economics course. Only in third year can they choose to do either sewing or cooking as the only options for specialization. Again this choice rests with the students who may choose to continue after the two-year basic training.

Getting feedback from the students about the centre is probably an experience not enjoyed by many teachers. For St Therese, it is assumed the teachers know already what the students want, as Mrs Faunt expressed in the following statement, “We know already, if we ask them, they just want to be sitting in the classroom learning ...they want office jobs, white-collar jobs ... as a secretary, they don't want to dirty their hands”.

She further explained that it is not the wish of the student to come to vocational training, that it is their parents' idea, as indicated earlier. When asked if the centre provides secretarial typing courses, it was explained that the Board does not approve such courses because such a course would only attract the girls to the city looking for office employment.

Inspite of that restriction, on leaving the centre at the end of training, everybody wants to find employment. Two-thirds of graduates from the St Therese Vocational Training Centre find some form of employment but the competition is strong. Most students, according to Mrs Faunt, prefer to do correspondence at the College of Distance Education (CODE), so that they might get better jobs (possibly office jobs). To her that is the wrong attitude for the students to take. Again, this is another area where the centres are limited in what they can offer in terms of the needs and interests of their trainees.
During the fieldwork in May 1998, I spoke to a group of 23 students. All except two have completed Grade 6. Their ages range from 15 to 18 years. The majority of them said that the home economics (HE) course is good and helpful and will be useful in the future. Only one student said that the HE course is for good motherhood in the future. Three of them insisted that there should be typing and computing courses too. And again majority would like to find a job first. Only one wanted to return to the village and set up her own business.

Asked if there is one thing she would say to the government about the value of vocational training Mrs Faunt said:

The Government attitude towards vocational training is that it is of low quality. ... if the government allowed national recognition by awarding National Certificates that would promote vocational training and push the morale up for both staff and students.

Though not much information was given about the current education reforms, Mrs Faunt believes the reforms are in the best interest of the students as there will be more integration of subjects in the courses offered at the centre.

4.2.5.9 Security

Security is not a real problem at the centre. There was only one attack on one of the teachers in the last two years. The fence around the centre has helped greatly. The problem with security is mostly external. In the public buses and along the streets the girls are often abused and threatened, sometimes being sworn at in bad language. Some of the teachers with husbands living with them have helped protect the centre. Also not far from the centre is a police station and its presence is an advantage.

4.2.5.10 Community Links

Apart from the community links through work experience, St Therese has established a reputable profile to attract international organizations such as the International Labour Organization (ILO). Early in 1998, ILO chose St Therese as the venue and utilized its expertise to conduct a four weeks course on catering and tailoring for women in the Lae area. Several business companies and individuals go to St Therese for various reasons. While I was at the centre in May 1998, a lady travelling to Port Moresby brought a roll of fabric and asked the manageress to have it made into a blouse and skirt for her to wear in Port Moresby. Also, a certain business company requested a set
of curtains for new offices. These requests, of course, boost the morale of teachers and students, especially the third year girls who are given the opportunity to actually make these items, hence linking the community with the centre.

4.2.6 Basenenka Vocational Training Centre

4.2.6.1 Location and History

Basenenka Vocational Centre is located on the south side of the Kainantu Township in the Eastern Highlands Province (see Map on page xx & Plate 4.19). The centre began as an annex to the then Agarabi Vocational Centre, about six kilometres from Kainantu along the Highlands Highway. Agarabi Vocational Centre was built on land belonging to the local government council of the area and the centre used the buildings of what had been a junior technical school in the early 1960s, before becoming a vocational centre in 1968 (Wilson 1974; Bais 1974). There were then two staff members, one an expatriate who was the manager, and the other a local. Both lived at the centre. It may be assumed that the local staff have had some technical training, possibly at the then Agarabi Junior Technical School.

Bais (1974) who reported on Agarabi Vocational Centre in 1972 claimed the centre was funded by the central government in Port Moresby. Mr Perupe Tiagameso, founder and former manager of Basenenka, in an interview in May of 1998 disagreed that the central government had funded the centre. Tiagameso claimed it was the World Bank that met the costs of the Agarabi Centre. Both are probably correct but both did not know that there might have been a link between the central government and the World Bank. After all, the World Bank would not have entered the country and done business without government approval.

During the 1970s, the World Bank financed several village development projects based in selected vocational centres. Agarabi was one of these centres and of course if the World Bank had to finance the project, it would have to come through the central government. The Kainantu Council provided both the land and the buildings as well as full maintenance of the centre.

In 1972, there were about 40 students at the Agarabi centre. Most of these trainees were Standard VI (Grade 6) school leavers from the previous year and they came from the surrounding villages in the Kainantu Sub-District. Others were village boys with no school experience and they gained admission as part of the requirement for the village development project. The village development
project admitted anyone at all from the villages though it was claimed that the boys were taken in to make up the numbers as "some of the boys had absconded from the centre" (Bais 1974:7).

The courses taught in the 1970s in Agarabi were much the same as those in Basenenka in the 1990s - quite basic, elementary trade skills in carpentry, motor mechanics, plumbing, welding and farming. In 1972, the Agarabi Centre concentrated on farming. Bais (1974) again claimed the manager decided on the farming scheme. The fact was that the main objective of the National Government via the Department of Education to the vocational centres and through the village development project was to train school leavers and villagers in basic skills and fit them back into their villages. The most appropriate skill to return to the village with was in agriculture, hence the farming scheme.

After the decision was taken on the farming scheme, it was discovered that most of the land around the Agarabi Centre was not suitable and what was suitable was insufficient for agriculture. At the same time there were growing tensions between the locals and the council over the occupancy of the Agarabi land. Nevertheless, the Department of Primary Industry (DPI) was approached and it gave permission for the Department of Education to use a block of land at Basenenka for the purpose of training farming skills. Basenenka become an annex and was known as the Basenenka Extension Centre. The manager of the Agarabi Centre developed an interesting farming scheme that grouped the students into model companies with the aim of teaching business principles and communication systems (Bais 1974). The scheme however did not continue when the expatriate manager left Agarabi. The farming idea was no doubt a good one but it seemed it was not well understood. Tiagameso in the May 1998 interview described the project at the extension centre as merely producing food to feed the students and the staff at Agarabi.

Local information had it that tensions surrounding the Agarabi centre grew worse, and eventually the centre was burnt down. I tried to visit the site but was told there was nothing there, not even a building to see. Female instructors were not safe and there were reports of incidents of breaking, entering and stealing. Between 1980 and 1983, the staff began to consider relocating to Basenenka. Coupled with the land and security problems, the funding by the World Bank came to an end in 1983. According to Tiagameso, there was virtually no finance to operate the centre. Eventually by June 1983, Agarabi was abandoned and Basenenka was set up.

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As the Basenenka site is located on a hillside, the ground had to be levelled for buildings and the fence around the site was reconstructed. The first buildings consisted of one office building and one mechanical workshop. There were also three small low covenant houses for teachers. The students lived in three kunai grass houses constructed by the students themselves when it was an extension centre. After the buildings went up, Basenenka faced another land problem. This time, not with the local community but with the Department of Primary Industry (DPI), which originally owned the land at the Basenenka site. Instead of the Department of Education, Tiagameso, as manager of Basenenka Vocational Centre at the time, went to court against DPI. Interestingly, the District Court decision was made in favour of Tiagameso and the Department although much of the land remains with DPI for cattle grazing. I asked Tiagameso why he had fought for Basenenka alone and the Department of Education had failed to take the case to court. He said he had a vision to build a vocational training centre to help trainees, and the Department of Education was not listening. Tiagameso has had vocational teaching experience outside the Eastern Highlands in Mt Hagen and Wewak during the 1970s. He believed that this experience helped him to fight for a good vocational training centre in his own home district.

Basenenka inherited what was at Agarabi and started with two staff members, one being female. Tiagameso was the manager until 1993 when he retired. In 1983, two male instructors had been added to the staff. A third instructor was a tradesman in mechanics recruited especially to send to Port Moresby In-Service College for training to obtain a vocational teaching certificate. This particular teacher returned to Basenenka in 1985 and is now deputy manager of the centre. So between 1983 and 1985, there were only about four to five instructors, one being female.

When the World Bank stopped funding the village development scheme in 1983 and Agarabi was relocated to Basenenka, the village development scheme ceased and vocational training was reinstituted. The unschooled boys from the villages were also no longer admitted. At the new site in Basenenka the students who were predominantly male, and Grade 6 school leavers, were much fewer than they had been in Agarabi. There were about ten males and five female students.

Agarabi did not cater well for female students either as it was considered an agricultural school for the boys. It was during the period when the village development scheme was in operation that home economics was offered to the girls. Detailed information about the girls in Agarabi and the early arrangements at Basenenka are difficult to establish, as written records do not exist.

The main courses taught in the early days at Basenenka were carpentry, motor mechanics, agriculture and home economics. Funding for the centre was difficult to come by according to the former manager, Mr Tiagameso. He fought long and hard to get funding from the Provincial
Department of Education in the Eastern Highlands Province. In 1983-84, the centre was given K1,500 and K3,000 in 1986, then K20,000 per annum until Tiagameso's retirement in 1993.

After Tiagameso, the Provincial Education Office appointed a new manager. From 1993 to early 1997, the centre experienced much mismanagement of funds, leading to the imprisonment of the manager in early 1997. The Provincial Education Office intervened in this matter so that the convicted manager stayed only two nights in a prison cell and then was freed. He was asked to reimburse the missing K3,045 but instead fled the centre taking with him the refrigerator, stove/oven and furniture from the manager's house in Basenenka. The centre's efforts to reclaim the goods have been in vain, as they could not trace his whereabouts.

4.2.6.2 Teachers

Today Basenenka has a female manageress, Mrs Carolyn Yabai, a Grade 10 school leaver with a Certificate in Teaching Home Economics from the Port Moresby In-Service College. She has taught in Menyamia (1983-84) and Wau (1985-86) Vocational Centres in Morobe Province before coming to Basenenka in 1991. Mrs Yabai set to work and some of the things she did in the first instance were to write up and distribute the 'Aims of the Centre' and draw up 'Duty Statements' for each teacher as can be seen in Appendices 4.1 and 4.2 respectively. The aims of the centre were taken directly from the vocational centre handbook published by the Department of Education (1993). Other things which the manageress has tried to put in place for the administration of the centre are seen in appendices 4.3: the 'Budget for 1998' and 4.4: the 'Basenenka Vocational Centre Proposed Projects'.

Including Mrs Yabai, there are ten staff members altogether, four of them female. The centre is a Level 5 school and therefore the manageress is exempted from teaching. Seven of the teachers, 3 females, excluding Mrs Yabai, and 4 males, were interviewed.

Mrs Carolyn Yaubela comes from the Eastern Highlands Province with a Certificate in Teaching Home Economics from the Port Moresby In-Service College in 1989. She is 26 years old and married with two children. Her first posting was to Bolubolu Vocational Centre on Goodenough Island in Milne Bay Province, but she did not take it up because she was not provided with an air ticket from Alotau. Mrs Yaubela said she came straight from the In-Service College with no industrial experience. She has been teaching for eight years with no inspection and her chances of promotion are very slim. Instead of promotion through inspection, the Board of Management makes a recommendation to the Provincial Education Board, which endorses the promotions. An example
of a member of the teaching staff being promoted from Level 1 to Level 3 was considered most unfair when they are all working hard together. There is, according to Mrs Yaubela, no female representative on the Board. The areas where she feels inadequate in teaching is in pattern drafting and adaptation. She enquired if there was an advance diploma course continuing from the certificate course she had already done, as she would be interested in doing further training.

Mrs Rosa Jeffery is 23 years old and also comes from the Eastern Highlands. She too is married with one child. Although her experience is similar to Mrs Yaubela's, she completed a Diploma in Teaching Home Economics in 1994. Her first posting was to Ihu Vocational Centre in the Gulf Province but like Mrs Yaubela, was not given any air tickets. She has no industry work experience but suggests that it should be part of teacher training in home economics. She is in her fourth year of teaching and shares the same concerns over promotional opportunities, Board of Management practices and inspections. Mrs Jeffery's interest in clothing and sewing is attributed to her mother who makes clothes for a living. She would like to pass on her skills to the girls through vocational training. However, she realizes that not everyone is keen on sewing and suggests that the curriculum should be broadened to include courses such as typing, crafts, cashier skills, computing, tourism, reception work and office procedures. She also suggests changing sewing to tailoring and cooking to catering.

Ms Cathy Aingil is 49 years old and comes from Kerowagi in the Simbu Province. Through church connections, she was taken to Madang and Wewak in the East Sepik Province where she completed primary and high school at Form IV (Grade 10) in 1969. She then trained as a primary school teacher and taught in several primary schools before joining the vocational system. She did six months of vocational teacher training in Goroka but said she needs more. She too shared concerns over industry experience, promotions and inspections, and commented that the in-service training given for both high school and vocational teachers is not suitable for vocational centres. There has not been any in-service training for the last two years or so. Ms Aingil suggested that there should be a counselling course included in the vocational teacher-training course.

Mr Asuviya Kuma is 29 years old from the Kainantu District in the Eastern Highlands Province. He is a qualified tradesman in plumbing who graduated from the Lae Technical College and worked for Fletcher Morobe for six years. In 1994 he resigned from Fletcher Morobe and worked as a volunteer in the Awande Vocational Centre in Okapa for K15 per fortnight. Then in 1995 he left Awande and joined the Okapa Town water supply as foreman receiving K400 per fortnight for three months. In the three months he helped to set up an eight-kilometre connection from the main source to the Okapa Station water supply. Mr Kuma joined Basenenka in 1996 and was given provisional
registration as a vocational teacher. He has had a wide range of experiences in surveying, designing and planning rural water supplies in Kainantu, and in villages in Goroka, and in Basenenka he has just developed a plan for a sewerage system and water supply. Mr Kuma has not been inspected, has not been to an in-service training course, and he doubted that he would have any promotional opportunity in the near future.

The way that three issues recur in the interviews shows their significance; these are inspections, secondly, promotional opportunities and thirdly the need for advanced courses and retraining in respective trades. The teachers also suggest that all teachers should have work experience in the relevant industry.

4.2.6.3 Students

There are altogether 188 students in Basenenka, 39 of them female. Of the total number of students, 127 are boarders and 61 are day students. I interviewed a cross-section of about 25 students, 9 of them female, in the week I was in Basenenka. The majority of the students are Grade 6 school leavers and a few had come from Grades 7, 8, 9, and 10 in secondary schools. They had left school between 1988 and 1996. Their ages range from 14 to 24. The majority of the students have come from the Eastern Highlands Province with some from other Provinces. Of the 25 students interviewed, 4 come from Madang Province, while the 9 females and the remaining male students come from the Eastern Highlands.

When the students were asked why they chose to come to Basenenka Vocational Centre, the majority of them speaking in Pidgin said, "Mi laik kisim save long painim wok" ('I want to have the skills to find work'). Others in a humble fashion said, "Mi laik kisim liklik save bai wokim sampela wok" ('I want to learn just a little skill so I could do some work'). Even the few who had a desire to return to their villages said, "Ino gutpela mi stap natin long ples, so to gain skills na halpinhaus lain, painim wok pastaim" ('It is not desirable that I remain a nobody in the village. It is better to gain skills and help the family by finding work in the future'). Many said they wanted to help their families; they wanted to see change in their villages.

One student, Obed Joseph from Okapa, left school (Grade 6) in 1990. Since leaving school, he continued to live with his parents and look after his grandparents. He fetched water and firewood and began to plant his own coffee trees. By 1996, he had planted approximately 100 coffee trees. His reason for coming to Basenenka is to, "Kisim save, go bek ples na halpin ol lain bilong ples" ('gain skills, go back to the village and help all the people in the village'). Because he had lived in
his village and helped his family, he saw the need for housing. He had a conviction that funeral feasts waste a lot of money, and his family has not lived in a good house. He said, "Haus kapa, i gutpela haus. ... mi laik papa na mama b'long mi mas stap long kapa haus bifo ol bai dai" ("House with corrugated iron roof is good, I want my father and mother to live in one of those kinds of houses before they die"). Being a first year student, the courses he takes include carpentry, plumbing, mechanics, and agriculture. Next year in his second year, he will choose to concentrate on carpentry so that he may build an iron roof house for his family. Obed saw his family's needs but his own need is even greater. He wanted to do some other work when he has completed his training. He ended the interview by saying, "Mi kisim liklik save, bai wokim sampela wok" ("I gain a few skills then I find a job").

Jillian Samson from Kainantu District is one of the few at the centre who left school after Grade 9. She is 19 years old and in second year of the home economics course. Jillian, like the majority of the female students, wants to see change in her village. She wants a good family house, a permanent house with a flush toilet and electric stove, she wants a good and safe water supply, good colourful clothes and an aid post nearby too. She says that in the village, the pig's pekpek (excreta) is spoiling the water and sickness spreads easily. She also thinks people need to eat more food from the gardens and less food from the stores. Jillian's aspirations for the future are shared by many of her counterparts.

Another female student, Martha Seko, a Grade 6 leaver from Yauna Village in Yonki, said they also need good roads for transport so they can take their vegetables to the market. They need to sell their produce to make money she said.

Generally, the students are happy to have a place at the centre. Getting into Basenenka in the first instance was very important to the students. They are quite happy with their teachers and they think that they are learning something that they hope may give them their income generating opportunities. The two main complaints about teachers were related to supervision and teacher morale. A few teachers, according to some students, "I save go i kam" (That is, a few of the teachers do not give proper and sufficient supervision to their students. They just come and go'). The other complaint was about one of the teachers who was jailed at the Bundaira gaol for six months in 1997. The teacher's crime was related to burning ballot boxes during the PNG National Elections in July 1997. The student did not think that a teacher with a criminal record should return to Basenenka as a teacher.

20 Bundaira gaol is located behind the hills from the Basenenka Vocational Centre.
The students' relationships with each other are pleasant, relaxed, friendly and harmonious despite the fact that they have come from different areas and provinces. This is demonstrated in the way that under the difficult conditions at the centre, they are able to live, work and play together. The most telling example of all is the way they endure the dormitory conditions, which will be discussed later under buildings and infrastructure.

The three common complaints of the students related to the courses, security and the buildings and facilities. Many of the students, particularly the females, feel that being restricted to the home economics course alone limits their options when they try to find employment. In fact they argued that they do home economics but will not find relevant employment. Noilyn Chriso, a 17 year old Grade 7 school leaver from the Eastern Highlands, said, "em stap long pies" (This suggest that students believe, that kind of training belongs in the village or home). That to train in home economics is to stay home. Sewing, however, seems to have more cash-earning potential so the students would prefer to learn how to use electric sewing machines. At the moment they only have hand and treadle sewing machines. The female students said, too, that they are interested in other current courses such as carpentry, agriculture and mechanics. They also wanted new courses introduced such as typing, cash register operations (cashier), hotel related work, clerical (filing clerk) and post-master/mistress courses (sorting mail, etc).

4.2.6.4 Security

Although security is better at Basenenka than it was in Agarabi, the security and safety of staff and students at the centre is very poorly managed. To start with, the Bundaira gaol is just behind the hills from Basenenka and the roads below the centre leading to the Kainantu Township are overgrown with kunai grass, and people consume alcohol along these roads especially towards weekends. Also, the centre is not properly fenced and the security guards employed are reported to be less than effective. The female students in particular reported that they are not happy with the security. They reported not being looked after, instead the security employees get angry and swear at the girls calling them names such as 'st in as' (smelly bottoms), 'bus pikinini' (children of the bush), 'bastards', 'stupid' and the 'f... ' word. At other times the girls are chased and stones and bottles are thrown at them. Then when the girls go into town, they are even more frightened of drunkards in town and along the roads. Some of the boys are reported to be helpful and look after the girls. The male students and staff do not appear to suffer any real personal security risks.

The female staff, however, reported security problems. By 7.30 every night, doors are locked and no one goes to the pit toilets, which are located at some distance from the house. One of these
teachers reported having to keep buckets of water in the house for urination purposes. Another teacher reported having to slide a K20 note through the door when the rascals nearly broke down the door. At another time the teacher slid a K10 note out and begged them to go away. The worse case of security occurred when the security guard himself was bound up and his wife pack-raped by 10 men in August 1997. Since then there has been no investigation.

With regards to security of property and equipment, it was reported that thefts of clothing and centre equipment were common occurrences. During the Christmas break of 1995, there was a break and enter at the centre and all the five sewing machines were stolen. As the security officer was from the area, he did a local investigation and eventually recovered three of the five stolen sewing machines. In 1998, a similar breaks and enter occurred. An investigation found that some of the first year students were involved in the break-in and the robbery that followed.

4.2.6.5 Buildings and Infrastructure

The original office buildings and the mechanical workshops remain. The office building is divided into classrooms and administration office, including a staff common room. The manageress has a little office with one window and no lights so she can only work during the day in the office. The teachers have a pigeonhole for mail in the common room where they use one large table to do their work, as there are no proper office facilities. One of the two classrooms in this building is used for both home economics classes and for storage of food for the boarders.

The mechanical workshop is divided in two for Year 1 and 2 respectively. There is one chalkboard, one old car engine and one old Land Rover needing repairs stationed in the workshop (see Plate 4.20). When I visited, the students were all standing up, as there were no seats. One of the mechanics students interviewed said that the workshop did not have enough tools and vehicles for students to gain experience. The floor space is too small with no desks so that the students find it difficult to write.

A carpentry student voiced a similar complaint in that there are 21 students in class but not enough tools. The carpentry workshop space is also tiny. They have four desks for the 21 carpentry students. Agriculture classes are held using underneath the manager's house as a classroom. Building and agricultural materials and supplies are also stored beneath this house.
Two new buildings are being put up, one a double classroom for home economics and carpentry, and the other a student mess. At present, the female students cook their food (breakfast and dinner) under a tree outside their dormitory. When it rains, they go without food unless their brothers (the male students) give them some of their own food. The male students cook their food (breakfast and dinner) under a single sheet of corrugated iron, also outside their dormitory. A male cook is employed to cook lunch for the boarders during weekdays. Both the male and female students use part of their dormitories as mess or eating places for their meals especially for breakfast and dinner and when the weather is wet and cold at lunch times.

The male dormitory is also built of corrugated iron and wood with built-in bunk beds. The dormitory has one door and seven little push-out windows. The students use bed sheets, laplaps and towels to divide their cubicles and for privacy, but many of these are filthy and the air smells awful. From outside, the dormitory appears like a tin shed for tools, but this is home for ninety-nine male students. It is so small they squeeze in two to three students per bunk bed. I asked three of the students to demonstrate how they sleep in these beds, and they could not move. One of the three said to me, "Em I paspas tumas", (It is too crowded), he said. Then added, "Taem wangepa i kisim sik, yumi olgeta i kisim sik" (When someone fell sick, they all fell sick). The students say that they sleep on one side; they cannot move until next morning. Just like the female dormitory, there are no storage cupboards or drawers. Bags are hung on the walls and school books (exercise books) and other things are kept underneath their pillows (see Plate 4.22).

The girls' dormitory is not too bad but it is certainly crowded and not very clean. The dormitory is made of corrugated iron and wood with glass louvres and wire on the four windows for security. There is one door with no proper ceiling or inside wall linings. Twenty-eight female students live in this dormitory. They use mats and a few have mattresses on the floor. There is no furniture, not even anything for storage purposes except the students' own bags and bilums (see Plate 4.23).

The teachers' housing consists of one high covenant house for the manager, one medium covenant house shared by two teachers with their families. About 15 to 16 people live in this house, eleven of them being children. The remaining six of the teachers' houses are small low covenant, semi-permanent houses (see Plate 4.24). One teacher has a gas stove for cooking. All the rest, including the manager's house, use kerosene stoves and firewood with separate kitchens built of bush materials. Furniture is not provided except what teachers provide for themselves. There are also no shower facilities for the teachers except for the manager's house.

12 'Mess' is the place where students eat their meals together.
All the toilets are pit latrines for both students and staff except for the manager's house. Not all the toilets have covers, and flies and smells are everywhere where there are no lids. Toilet paper and water are scarce especially near the pit toilets. The manager's house has tap water pumped by electricity. The one water tank located close to the male dormitory is used especially by the cook to prepare the students' lunches and for washing dishes. The main source of water supply for the centre is an underground well operated by a hand-pump. There is also a small creek that runs between the main administration/classroom building and the residence where students often bath, as there are no shower rooms.

4.2.6.6 Finance

After the imprisonment and the disappearance of the former manager in early 1997, the finances of the centre were in real disarray. The centre worked to rebuild its finances. As can be seen in Appendix 4.3, the budget for 1998, the total income expected this year is K59,680. Of this total, K1,450 is in outstanding amount for student fees from 1997, and the total expected project fee for 1998 (@ K70 x 188 students) is K13,160. At the time of my research and nearly in the middle of the year, most of these fees were unpaid. The actual income received from the government subsidy by May 1998 was K16,810 in term one, K19,000 in term two and K2,000 from the poultry sales, totalling K37,810. Expenditure is expected at about K59,300 for the year. Should the budget become a reality, Basenenka may end the year with a surplus of K310.

Politically however, Basenenka stands to gain financially. Basenenka is located on the boarder between the Wonenara and Kainantu electorates. The current Minister for Education comes from the Wosera Wonenara electorate. The 1998 Eastern Highlands Provincial Budget has earmarked K160,000 for Basenenka for a special project. The aim is to build two dormitories, one for the females and the other for the male students. The question is who is going to be contracted to build these dormitories? The centre's staff and Board of Management decided they want their money put into the centre's account, and their students to build these dormitories with the Works Department from Goroka supervising the construction. The Vocational Centre Provincial Co-ordinator however, has a different plan, quite contrary to the centre's wishes. The co-ordinator wanted to get a local contractor to build the dormitories instead. This question was unresolved at the time of my visit, and may delay the start on the much-needed dormitories.

4.2.6.7 Curriculum
There are five courses offered at the Basenenka Vocational Centre including motor mechanics, plumbing, carpentry, home economics and agriculture. Teaching facilities for these courses have been described in the section under buildings in the centre. But it needs to be mentioned that Agriculture has a few more facilities than most at the moment. It has a large area of land that has been planted with vegetables such as sweet potatoes, English potatoes, carrots, cabbages of all sorts, corn, shallots, pumpkins, tomatoes and cucumbers. There are also fruit trees such as oranges, mandarins, apple trees (one of the few places where apples are grown in PNG), lemon trees, pawpaws and bananas. Agriculture has also a poultry section where students learn about raising chickens in a small business enterprise (see Plate 4.25). The poultry house is in the residential area. There is also a fishpond that has been drained at the moment but there are hopes to resurrect the project sometime.

4.2.6.8 Community Links

Unlike Badili, Koki and Limana where there are some form of commercial links with the community, Basenenka appears to have strong community links mostly through social contacts. For example, for recreation, students play sports on Fridays and with local teams at the weekends. Occasional games are also arranged with teams outside the Kainantu District such as between Basenenka and Kamaliki Vocational Centre. Both boys and girls play soccer, rugby, volleyball, basketball and athletics. The centre also takes part in cultural performances. While I was in Basenenka, a 'Singsing' was put on in my honour (see Plate 4.26). Maria Hilf Vocational Centre was invited to join with officers of the District Education Office, members of the centre's Board of Management, a businessman who donated sewing machines to the centre, the councillor from the area and local parents and people from the nearby villages. After the performance, all the students and others ate a mumu and the official guests and teachers were treated to a luncheon prepared by the home economics teachers and students.

4.2.7 Maria Hilf Vocational Training Centre

4.2.7.1 Location and History

Maria Hilf Vocational Training Centre is a Level 4, all-girls Catholic agency training centre located in Kainantu in the Eastern Highlands Province. The site is up on a hill overlooking the Kainantu

21 'Singsing' is a festival of traditional songs and dances for all kinds of celebrated occasions.
13 'Mumu' is a method of cooking similar to steaming. Food is wrapped in banana leaves and cooked inside a pit layered with hot stones. A layer of banana leaves is placed on top of the stones then covered with earth for two to five hours, depending on the amount of food and the strength of the hot stones, before the food is served.
Township. It is not easy to find the site but the Catholic mission station serves as a guide and will eventually lead to the centre. According to the manageress, Mrs Josephine Gunua, there is no signboard for the centre due to fear of rascals. It is a small centre with limited buildings for office space, classrooms, student dormitory and staff housing. The buildings are mostly made of wood and in good repair, except for the teachers' houses, which need much attention (see Map on page xx).

Prior to 1989, Maria Hilf began as a pre-school for children between four and five years old. In 1989, an American priest Fr Elmar Elsberne, initiated the vocational centre for girls and relocated the pre-school. There were two general buildings and two female dormitories. There were no teachers' houses. The two general buildings housed classrooms, offices and served as teachers' accommodation.

There were three female teachers and one male priest. When the centre was started, one teacher lived in what is now an office between two of the classrooms in one of the general buildings. Another teacher lived in part of one of the classrooms and the third teacher lived in a little room underneath the priest's house. For cooking, two of the teachers shared one primus and one teacher shared cooking with the priest. For toilets and showers, the teachers shared with the students. There were about 40 female students. Under the instruction of the priest, these students, that is, the women, helped to construct teachers' houses and put up other buildings at the centre.

The courses taught when the centre was started included home economics where the girls learned sewing, cooking, food & nutrition, health & hygiene, mothercraft, consumer education and handicrafts. Basic English, carpentry and mathematics were also taught.

4.2.7.2 Buildings and Infrastructure

Today there are three teachers' houses with kitchen and toilet inside, and a shower shared by two houses is located outside the houses. Only one of the houses has all the facilities inside (see Plate 4.31). The houses are unfurnished. The teachers' houses have been built since 1990. The teachers' houses are considered good for single teachers but not for families, as they are too small. There are two double classrooms with four teaching rooms, one shared office and one storage room where the food rations for the students' kitchen is kept. There are not enough classrooms so the students' dining hall is used as a classroom. The students are housed in two dormitories each with four rooms. Some of the rooms are furnished with bunk beds and others are left without, since there are not enough bunk beds. Each room can accommodate eight to twelve students.
One of the real needs of the students in terms of buildings and facilities is for a proper kitchen and dining hall. At the moment, the students cook in three copper cookers in a tiny shed-like kitchen and have their meals in a dining hall that is shared as a classroom. Equipment at the centre includes 22 manual typewriters, 4 gas stoves, 21 sewing machines and one cash register.

Some of the buildings and facilities are in need of repairs and maintenance. The manageress observed that they needed the following:

- a proper build-in ceiling to keep the rats out
- fly wire for protection against mosquitoes and insects
- repainting of classrooms
- proper built-in ceilings and repainting of the dormitories
- security wire for the protection of expensive equipment such as the cash register, photocopying machine, sewing machines and type writers
- a canteen which is used for training students in the use of the cash register, needs to be properly established and removed from the dining hall

The water supply, which comes from the main town supply, is a real problem for the centre as the centre is located on a hill and the pressure is often not strong enough to reach the centre. This happens especially during the day when all households and businesses are in operation and as a result the water supply to the centre is inadequate. The centre then depends on rain water in small water tanks though they would like to get a Southern Cross water tank, which costs K15,000.

4.2.7.3 Teachers

There are now five female teachers, all being nationals (see Plate 4.27). One of them is a nun and continues to reside in the little room under the priest's house. One of the teachers has a Certificate in Teaching Community School and two have Certificates in Teaching Home Economics and another two have Diplomas in Teaching Home Economics.
A very brief discussion with the Catholic Secretary for Education, who was visiting the centre at the time I visited, confirmed some of my enquiries about staffing matters. The Catholic mission agency is responsible for filling teaching vacancies at the centre. The manageress and her deputy have no say in the appointments. The centre is only responsible for informing the agency on teacher vacancies and it makes requests for advertisements. Unavoidably, the mission agencies advertise their vacant positions in the National Education Gazette but applications are directed to specific agencies, be they government or mission.

Mrs Lina Jones is the Deputy Manageress. She is 27 years old and comes from Okapa in the Eastern Highlands. She is married with two children and her husband works for the PNG Electricity Commission. Mrs Jones completed Grade 10 at the Okapa High School in 1988 then did the Certificate in Teaching Home Economics training at the Port Moresby In-Service College. After graduating at the end of 1990, she saw a vacancy advertised in the National Education Gazette for Maria Hilf and applied for it. She has since been teaching in Maria Hilf for eight years. With regard to education reform, she commented that without adequate resources it would be difficult to implement. Even when the level of the centre was raised to Level 4, so that the deputy's position levels also changed from Level 2 to Level 3, the income level remains the same. For example, Mrs Jones receives a gross salary of K280 (K253 net income) and this remains the same. Similarly, there has been no change in the syllabus and the day-to-day running of the centre or its Board of Management. The last time any National In-Service Training was conducted was in 1996.

Mrs Jones was always keen on home economics in high school because she likes to work with her hands especially in dressmaking. So at the Maria Hilf Vocational Centre, she has the opportunity to pass on her dressmaking skills to the young girls and hopefully they will take advantage of their opportunities and learn from her. Her real hope is that the Maria Hilf graduates will make a difference with what they learn and make life a little easier for themselves, their families and the communities where they come from. She is interested in pursuing further studies in tailoring, especially in clothing production in the fashion industries in Australia. Last year she applied to study in a TAFE (Technical and Further Education) College in Queensland. She has been given provisional admission and had applied to ADCOS (Australian Development Corporation Scholarship Scheme) in May 1998.

Miss Francesca Kosuwai is 24 years old and comes from a mixed parentage - of both the Eastern Highlands and Milne Bay Provinces. She completed Grade 10 in 1990 at the Okapa High School where Mrs Jones had also been. She then went to Port Moresby In-Service College and graduated with a Diploma in Teaching Home Economics in 1993. Since 1994, she has been teaching food and
nutrition at Maria Hilf. This year she has been trying to teach Basic English and typing but of course these are not the areas she was trained to teach. Asked why she chose teaching in a vocational centre, Miss Kosuwai explained that it was her personal desire way back in Grade 10, to be able to work with young girls. Vocational teaching gave her the opportunity to realize this desire. She enjoys being with and teaching the girls, and finds that the timetable is flexible enough to allow her to choose to teach any subject at all. Her comments about the students particularly concern the Grade 10 school leavers. She notes that they are quite ‘bossy’ towards the Grade 6 leavers, and teachers had to look out for any signs of friction. Her concluding comments expressed a need and a desire for further training particularly in catering and hotel management. Although she could teach any subject in the syllabus at the vocational level, she was aware of her lack of advanced skills particularly in teaching foods and nutrition.

Mrs Mathilda Muriki is from Madang Province. By age, she is the oldest teacher but a new arrival as staff member. She is 38 years old. Mrs Muriki completed Grade 10 in 1977 at the Malala High School in the Madang Province and proceeded to St Benedict's Teachers' College in Wewak, East Sepik Province, where she was awarded the Primary School Teaching Certificate in 1979. She taught for one year at the Tabele Community School in Madang in 1980 and then left teaching for 15 years. During these 15 years however, she taught herself cookery and did much voluntary work with Non-Government Organizations (NGOs), women's groups and the youths especially Grade 6 dropouts. Some of the things she taught the groups were sewing, art and handicraft work, cookery and she gave cookery demonstrations. During 1997, Mrs Muriki decided to re-enter the teaching service and chose to apply to Maria Hilf. She wanted to impart her skills and the reality of community experiences to the young women trainees at Maria Hilf. Her final comment echoes what others have said, and that is her need for further training. She said that she had lots of worthwhile experience but needed further training to consolidate her experience with a certificate of education qualification.

4.2.7.4 Students

The number of students has increased from 40 in 1989 to 101 in the last decade. One of the fathers of the students turned up one day and removed his daughter to get married so he could get the bride prize of K1,500. So the number of students remains at 100 with 80 students being boarders. The students are school leavers from Grade 6 to Grade 10 with Grade 6 school leavers being the majority. The ages range from about 15 to 26 years old. Although Maria Hilf is a Catholic church agency school, about 44 of the students belong to the Seventh Day Adventist church, which is predominant in this part of the Eastern Highlands, and four are from the Four Square church. Also
many of the students have come from beyond the Eastern Highlands Province. For example, students have travelled from Chimbu, Western Highlands, Southern Highlands, the East Sepik and Sandaun Provinces, Madang and Bougainville. There is no restriction on age, religion, marital status, grades and province of origins.

Due to limited time at the Maria Hilf Centre, I had a discussion with a group of eleven students (see Plate 4.29). It was arranged for ten girls to see me, but another decided to join making it a total of eleven. I asked the group questions to gauge each one's thoughts about the training at Maria Hilf. I asked general questions about their personal backgrounds such as name, age, home province, grade completed at school and what they were doing before coming to the centre. The main questions I put to them were:

- Why did you choose to come to the Maria Hilf Vocational Training Centre?
- What do you think of the centre?
- How useful is the Program to you?
- What do you think about the teachers?
- What do you intend to do when you complete your training?

Nine of the girls completed Grade 6 and two have done Grade 10 in high school. Salome Kuman is a 19-year-old from Chimbu Province. She did Grade 10 at the Kundiawa Lutheran High School. Aileen Norm is 20 years old and comes from Goroka. She also did Grade 10 but at the Benabena High School in the Eastern Highlands Province. Salome said that her English grade was below the pass mark and she needed to improve by doing CODE Grade 10 English. Aileen wanted to matriculate so she has been doing matriculation studies with the University Centre²² in Goroka. Unfortunately these two students are not able to complete the external distance studies due to the cost, about K45 per subject. Both students are in their second year of training and said that high school did not prepare them for employment. After leaving Grade 10 in 1995, Salome stayed home in her village for two years. Of those two years she said, "Laip long peles i bagarapim mi" (Life in the village had been destroying me). She explained that money was difficult to come by in the village and that made life even more difficult for her.

The nine girls, Grace Samo, Nancy Kana, Jacklyn Banaifa, Teckla Letnehe, Delma Melecce, Judy Wete, Maureen Iruru, Maria O'hir and Aileen Aviro who left school in Grade 6, have come from

²² University Centres in PNG belong to the University of Papua New Guinea. The centres provided Distance Education including matriculation studies. There are about ten centres located in various town centres throughout the country.
three different provinces - Bougainville, Madang and Eastern Highlands. Their ages range from 17 to 21 and all left school between 1987 and 1996. After leaving primary school, these students have not done anything other than live in their own villages. Three of them have lived in the village for almost ten years, while the others spent as short as one year before attending Maria Hilf. Asked what they did in the village, they said, "... nothing, mipela stap nating" (nothing, we are staying doing nothing). Of course they did work, but did nothing in the way of bringing in a cash income.

The common response when asked their reasons for coming to the centre, was that the girls were doing nothing productive in the village. They thought that if they could acquire 'liklik save tasol'23 their chances for employment might be better. Teckla Letnehe from Madang Province said that when she failed Grade 6, she was worried about staying in the village and doing nothing. She tried CODE Grade 7 studies but has not finished because of lack of finance to cover costs. Then she asked her cousin, who sews clothes, questions about how to sew clothes. Teckla's cousin told her about vocational training where she was trained to sew dresses and other garments. That is how she came all the way from Madang Province to Kainantu in the Eastern Highlands Province to receive some training. Now she says, "Mi bilif mi gat sans long painim wok" (I believe I have a chance to find work).

With regards to the questions about the centre and the program, the trainees are happy to have a place in Maria Hilf and are learning new things. Grace Samo said, "We are like one big family". Nancy Kana a local from the area said, "Mi kam long Maria Hilf na mi lanim niupela samtin" (I come to Maria Hilf and I am learning new things), and Judy Wete commented, "Mi hamamas long kos na stap long hia" (I am happy with the course and my stay here). Maureen Iruru added, "Mi laikim sowin, kraft, kesh regista na taipin" (I like sewing, craft, cash register and typing), and those preferences were shared by Delma Melecce, Maria Ohir and Jacklyn Banaifa.

However, the trainees also shared concerns about their safety and security in the dormitories at night, and this is discussed later in this study of Maria Hilf in point 4.2.7.8. Now that the dormitories have a fence around them, the students say they feel a lot safer, though not completely at peace. Although they are generally happy, comments about the program revealed a lack of resources and this disadvantaged their training. For example, of the 22 typewriters, only 20 are functioning well and students take it in turns to practise. Because typing is a popular course, the shortage limits their chances to improve their skills. There is also a shortage of typing textbooks and sewing machines.

23 'Liklik save tasol' (little knowledge only) means more than just knowledge but a humbling way to state their need for training in skills for employment.
The centre has no proper library facilities and no trained librarian. The little library is kept in one part of a classroom and the books are stored in a cupboard. There are a few magazines such as Woman's Day, Women's Weekly and Lady's Fashion, and a few fiction and non-fiction books, but nothing on sewing, nor anything on cooking and nutrition. Other comments described the need for more classroom space, a students' kitchen and dining hall, staff housing and the students' dormitories. They complained that the dormitories are crowded with one cubicle room shared by about eleven to twelve girls, sharing beds that is, one bed between two girls, the rest sleep on the floor. There is also limited storage space as there are not enough cupboards for all the girls. They also complained of the water supply problem and not having a public telephone (see Plates 4.28, 4.29 and 4.30).

Questions about the teachers revealed a gap between the teachers' training and the students' desired employment. There is a need for more teachers and teachers with skills in those subjects that the girls wanted to learn. Salome Kuman said that there are typewriters but no instructors to teach typing. Many said they wanted to learn computing too, but no one has got close enough to a computer to actually touch it. Only one has seen a microwave without touching it or trying it. The students also wanted to learn office procedures and clerical work; how to use the photocopying machine properly and how to operate a facsimile machine but they had no instructor to teach them how to operate those machines. Generally, the trainees are quite happy with the teachers but they want more than the training they are receiving at this time.

Asked what they might do at the completion of their training, all the eleven students responded that they would like to find a job. Although six of them said that they are interested in starting up businesses in areas such as typing, foods and clothing, they would much rather prefer to find wage employment first so that they could build an income base in order to start up a business.

Perhaps it needs to be said that the rigid structures of certain established schools are breaking down. The schools are probably becoming more humane as demonstrated by what is happening at Maria Hilf. One of the students from Bougainville is about 26 years old and married. There was no mention if she had any children. Last January she and her husband came all the way from Bougainville in search of some training. They travelled by boat to Lae and the man found a place at the Lae Technical College, but there was no vocational centre that could accept the woman. So they travelled all the way up the Highlands Highway to Kainantu in the Eastern Highlands Province where they were able to find her a place at the Maria Hilf Centre. Three other Bougainvillean who were about 24 years old were also admitted to the centre. The manageress said that if she does not accept them then where would they go? For nearly ten years, the political crisis in Bougainville has
effectively closed education and training in the province, leaving the young people without the skills for wage employment.

It was also reported that a young woman who had completed Grade 10 in high school and who married an uneducated village man, took K250 to the centre and wanted to enroll. When the husband found out he stopped the wife. In other cases, many married women went enquiring about admission even during the Christmas holidays, but without their husbands' consent it was difficult to consider them for admission.

4.2.7.5 Curriculum

The program is offered for two years for Grades 6 to 9 school leavers with courses covering:

- basic and advanced sewing
- nutrition and food (cookery)
- typing
- cash register
- office procedures
- home management (laundry skills & consumer education)
- health and hygiene
- family living (child development)
- grooming (personal development)
- home gardening (agriculture)
- religious instruction (Christianity)
- music
- arts and crafts
- guidance
- basic English and mathematics

For Grade 10 school leavers, the program is offered for only one year covering courses in:

- home economics basics - review only as the course had been covered in high school already
- typing
- cash register (manual & electrical)
- photocopying
• electrical appliances
• emphasis is on: grooming - cleanliness, neatness, appearances and cosmetics

The carpentry course came to an end in 1993 when the priest, Fr Elsberne, 'went finish'. There has been no replacement or request made to the Board of Management, and the students too have not asked about being able to do carpentry. The most popular courses according to the manageress are typing and cash register. Home gardening, which includes agriculture, is the least desired course. On Fridays from 8.00 a.m. to 9.00 a.m. the students have prayer and worship time, which is, different from the forty-minute period allocated for religious instruction during the week.

The emphasis in teaching time is placed on practical skills which takes up three quarters of the time, and the rest is given to theory. For practical work experience, students in second year are sent out in the fourth term for six weeks working with various companies. In 1997, however, the centre had not got enough funds to maintain all the boarders so the second year students were sent out for four months instead. Often this is a difficult exercise to organize, as it is not easy to find companies in the area interested and willing to accept the trainees for this part of the program. However, there are companies such as Ren Bou (Collins and Leahy) Ltd Pty, FNM - Philippines Workshop and Rest, and the Kainantu Lodge which are often helpful in providing opportunities for the trainees to gain work experience. The public sector, such as the local government council and other government offices, are often reluctant to take trainees.

4.2.7.6 Finance

The finances of Maria Hilf Centre appears to depend - as would be expected - on government grants, parents and the centre's own fundraising activities. According to the manageress, in 1996 the centre had about K14,717 for the entire operation of the program. In 1997, this amount was reduced to K12,750 which led to allowing the senior students to spend four months on work experience as discussed earlier. To help raise funds for a new kitchen and dining hall, the Board of Management in 1998 set projects fees at K150 for boarders (K150 x 80 boarders) and K100 for day students (100 x 20 day students) totaling K14,000. The rental for the three staff houses is set at K10 per fortnight (K10 x 26 fortnights) and the canteen and craft sales are expected to bring in a profit of about K3,000. The government grants are supposed to pay K250 per boarding student (K250 x 80 boarders) and K150 per day student (K150 x 20 day students). This should improve the centre's finances, providing approximately K23,000. Instead, the centre received four different cheques for varying amounts. For example, in the first quarter, cheque #: 1 = K4,620; cheque #: 2 = K2,021.25 and cheque #: 3 = K2,021.25 were received. Then in the second quarter a fourth cheque came in for
K6,710. The total expected income for 1998 is approximately K56,152. However, the actual finances so far stand at K18,372.50 (government subsidy of K15,372.50 plus other payments).

The expenses cover the following items:

- wages for three ancillary staff at K60 per fortnight
- 1 centre vehicle
- utilities
  - electricity
  - telephone
  - garbage
  - water supply
- theft and fire insurance policy payments covering
  - photocopy machine
  - vehicle
  - lawn mower
  - sewing machines
  - type writers
  - cash register

The insurance cover costs the centre K409.50 per annum. The teachers make their own budgets of no more than K500 for each section to spend on teaching materials and supplies. The manageress gives the funds requested then after the purchases, receipts are returned to the manageress who reconciles the financial accounts for the centre. The financial transactions for the centre are kept in two separate account books, one credit book (for income) and the other for debit (expenditure). These two books are submitted to the Diocese Office for the parish priest to examine every month, thus providing for thorough and frequent, regular checks.

4.2.7.7 Management

Speaking with the manageress, Mrs Gunua, I got yet another insight into the gains and the pains of running a school in demand and at the same time under-resourced. She says the major, constant worry is the food for the boarders, which costs about K1,000 per month. Then there are the teaching needs such as ribbons and papers for the typewriters. Ribbons for the old models, which the centre has, are not available in the Kainantu town shops and they have to go all the way down to Lae to
purchase them. Then there are the sewing machines with their missing and broken parts. Again these cannot be found in Kainantu. The Butterfly Model sewing machine is found to be ineffective and needs to be replaced with new and different models but the centre does not have the funds to do so. And many times, supplies of fabric, threads and needles, and other equipment needed for sewing are in short supply. This, Mrs Gunua said, compromises the quality of the clothing produced by the centre. The trainees do want to find employment after completion of their training. But, for "... the kitchen ... hotel work, we don't have the relevant equipment and other resources to train the students to fit the expectations of the work place", she said.

4.2.7.8 Security

For safety and security, the teachers agreed with Mrs Jones, in the interview with the teachers in point 4.2.7.3 above, that they feel quite safe and secure only during the daytime inside the centre. At night they remain fearful and need male escorts should they have any engagements outside their homes.

The centre, being a 'girls only' boarding school and run by 'female only' teachers, poses particular security concerns. As mentioned earlier, the Maria Hilf Vocational Centre does not have a signboard to mark its location for fear that the rascals might learn about it and cause problems. How effective this strategy has been is questionable. The rascals of course know about the centre and how to find it. In 1996, a girl from Madang fought with a rascal who entered one of the dormitories early one morning around 5.30 a.m. The rascal stole a torch and a shirt belonging to the girls. When the incident was reported to the police, there was no response. In 1997, the centre employed one security officer. This still did not help as the rascals continue to harass the school. Several times the centre have been broken into and things stolen, included sewing machines and coffee bags.

During term one 1998, worse security problems occurred. On a certain day at about 5 o'clock in the morning, three or four rascals got into the centre and forced the security officer to go and wake the girls up to cook breakfast. A Chimbu girl called Maria refused to go out to the kitchen because it was still quite dark. A friend of Maria wanted to help so she went to open the door. But as soon as she opened the door, a gun was leveled at her head. Immediately the girl pushed the door hard against the gun and struggled to keep the door closed against the men. The struggle woke all the girls in that particular room and turned on the alarm. This then made the rascals run away. Two other incidents that followed involved an attempted kidnapping and a man with a bush knife that entered the dormitory and sent the girls into hiding under the beds. Again the sound of the alarm rescued the girls.
The rascals seem to know that the toilets are outside the dormitories and that the girls wake up early to cook breakfast so the common time for the rascals to come to the centre is between 3 o’clock and 5 o’clock in the morning. It is believed that this will go on indefinitely and the centre ought to do something. Now the centre employs two security guards to patrol particularly at nights (see Plate 4.32). Besides the fence around the entire centre, the dormitories are now enclosed within a separate corrugated iron fence. The girls and the security guards also came to an agreement that when rascals are in the centre, the guards would throw a stone on top of the roof of the dormitory to warn the girls to wake up and turn on the alarm. Still, the students and teachers are reported to have nightmares and continue to live in fear.

4.2.7.9 Community Links

The Maria Hilf Vocational Centre uses its church associations to make links with the community. The centre runs an extension program with mothers’ groups in the Catholic, Seventh Day Adventist and the Salvation Army churches. The program involves particularly sewing classes where the senior students assist in teaching the mothers to make basic garments.

4.2.8 Kamaliki Vocational Training Centre

4.2.8.1 Location and History

The Kamaliki Vocational Training Centre has an excellent location between Benabena and Goroka along the main Highlands Highway; about 10 minutes drive from the Goroka town centre in the Eastern Highlands Province (see Map on page xx & Plate 4.33). It is a Level 6, government co-educational centre built by the colonial administration in the 1960s. In 1976, a year after the country gained independence, the Kamaliki Vocational Training Centre was shut down. By 1997, the World Bank helped to reopen the centre and established the main Village Development Centre for the Eastern Highlands. Although the centre was badly run down, with only two buildings in reasonable condition, the World Bank funds assisted greatly in its restoration. The village development scheme, which is described in Chapter 5, point 5.5.1 unfortunately had to shut down in the early 1980s for lack of funds.

4.2.8.2 Buildings and Infrastructure

In 1986, Kamaliki started up again as a vocational training centre. The buildings and facilities include one new administration building, four workshops, one double teaching classroom, one
home economics building, one tool house-shed, one library and staff room, three dormitories, one
mess and kitchen (see Plate 4.34), and nine staff houses. Some of the buildings are about 30 years
old and are badly in need of repair. Teachers occupy the nine teachers' houses on campus. Another
three teachers live in the Goroka Township, that is, the manager, one of the female teachers who
lives with her parents, and a male teacher who lives with relatives.

Most of the national teachers' houses are unfurnished. The teachers try to provide their own
furniture but cannot afford it. Many sleep on the cement floor on floor mats. The centre at the
moment has no water system, as the town authority has not made provision for the centre to be
connected to the general town water supply. There are no proper septic toilets, showers, and laundry
or dishwashing facilities in the teachers' housing. Where there are water tanks, the water, which is
carted from the town supply costing K98 per tank, is said to be not very clean either. Teachers try to
make do with what is available. They have dug pit latrines and use the river for baths, laundry and
washing dishes.

4.2.8.3 New Development

In 1994, Kamaliki became one of the six sites selected for a pilot project to trial a competency
based curriculum funded by PNG and German Governments. It is known as the GTZ pilot project,
described in Chapter 5, point 5.5.2. This special project has given rise to Kamaliki's slight face-lift
to some of its buildings - offices, classrooms and workshops, library and teachers' houses. The
project has not brought about total change however; old buildings have been utilized and some have
been repaired. For example, repairs were made to the welding, plumbing and metal fabricating
workshops. The project, according to the manager, built only one new double classroom and
provided tools (see Plate 4.35).

The GTZ teacher, a German, pointed out that the competency-based syllabus (CBS) has been
written for courses in motor mechanics, plumbing, carpentry/joinery, metal fabrication and sewing
in the home economics course. Instructor 'Resource Guides' have been requested particularly for
teachers. The 'Resource Guide' for plumbing has been completed and more guides are to be
written. Apart from the full course, short courses are also offered and this is the most difficult
component to plan, as it is not easy to determine the needs of the communities. The funding for the
short courses is also not forthcoming except for church sponsored participants. The short courses
are provided in both English and Tok Pisin (Pidgin).

Although the GTZ receives positive feedback from participants, problems observed by the German
teacher include:
• All parties (NDOE and GTZ) involved are not linking well
• The program is not co-ordinated with trade standards. The setting up of Trade Testing in PNG is seen to benefit CBS
• Lack of supervision by teachers who give students work and who are then left alone to work by themselves, defeating the purpose of the syllabus
• Financial accounting where bookkeeping is not done properly. It was claimed, for instance, that orders for plumbing, welding and metal fabrication were in the vicinity of K3,000 to K4,000 but teachers do not actually see or know what money the centre has and how it is being spent

What I saw at the centre surprised me. There was the GTZ project housed in the office next door to the managers' office with a computer set up, but the manager chose to keep his files in the traditional system. When I asked if there were documents about the centre or financial reports of some kind, the manager looked inside a cane basket to find papers.

One of the dangers pointed out by the manager is that the GTZ curriculum is based on European standards and on factory concepts as demonstrated by the kinds of tools and implements donated, and this is irrelevant at Kamaliki.

Such are the conflicting views, thus preventing real progress in what seem to be a very worthwhile project.

4.2.8.4 Teachers

In 1986, there were six teachers, three being female. Twelve years later, the number of teachers had doubled to twelve but the number of the female teachers remained at three. The majority are PNG teachers with one Filipino, one Australian, and one German. The age groups are not clearly identified but the manager estimated that the ages range between 20 and 40 years except for the one faithful Australian who is about 55 years old. For the PNG teachers, the qualifications required are - as elsewhere - the certificate in teaching from the Port Moresby In-Service College for the male tradesmen and the certificate and/or diploma in teaching for the female teachers. It is assumed that the male teachers have already acquired the tradesmen certificate through the apprenticeship scheme; and the home economics teachers have completed Grade 10 in high school. The manager, who is a Filipino, has a Bachelor's Degree in Agriculture and a Master's Degree in Administration. The German teacher has a Bachelor's Degree in Plumbing and the Australian has a Diploma in
Education. The number of years of teaching experience varies from one to two years to twenty-five years.

Six teachers were interviewed separately. One teacher is from the Madang Province and another from Milne Bay, but the rest are from the Highlands. The ages vary from 21 to about 40 years, which is within the manager's estimation. They have come from varied backgrounds. Asked why they chose vocational teaching, the common response was that they wanted to teach the young people and pass on their knowledge and skills.

4.2.8.5 Curriculum

The courses taught include agriculture, auto mechanics, general mechanics, carpentry and plumbing, home economics and typing (see Plate 4.36). Trade English and mathematics are incorporated into subjects taught. The training is conducted for two years. As in the other vocational centres, the ideal is to spend more time on practical learning activities than theory. Kamaliki however, does not have the resources to do more practical teaching; hence students spend an estimated 70% to 75% of time on theory instead. This is similar to Morata even though Kamaliki is in a much more advantageous position in terms of resources. One of the ways to counteract this lack of practical training has been to send the second year students out to do 'on-the-job training' for the last six months in various business firms and government institutions, as they do at Morata and the other centres. For example, some students work in the Department of Works and Supply workshops, Ela Motors and Boroko Motors workshops, Collins and Leahy Pty. Ltd., the Goroka General Hospital kitchen, the Education Office and the pre-school. The students learn and practise skills such as typing, food skills, answering telephones, mechanical skills, plumbing, welding pricing and stocktaking, and childcare.

The Kamaliki entry requirements are "... not in the book", says the manager, Mr Dayrit, but it is most interesting. The student applicant ought to have done Grade 6 and must be 15 or older. Unique to this centre, is compulsory interview with the student applicant. The applicant is checked to make sure he or she has a height of 5 feet or more and the armpit has underarm hair to be certain the student is 15 years of age. Twelve-year-olds are considered too young, and the training is wasted. Mr Dayrit explained that since employment is limited, it is better to train those more likely to find immediate employment.

4.2.8.6 Finance

136
The Budget for the centre was set at K137,000. The government subsidy is expected to bring in about K41,250 (K250 per student subsidy x 165 students). By May 1998, Kamaliki had received two cheques valued at K13,000 and K15,000 and totalling about K28,000. The short courses in 1997 brought in about K5,000 but cost in expenses some K4,210. Each of the five sections receive K500 each term. Telephone and electricity each cost approximately K250 to K300 per month; and about K1,000 per week is spent on food for boarders, giving K4,000 per month on food alone.

4.2.8.7 Students

In 1986, there were 36 first year male students and 14 females and about 18 second year male students only. Today there are 165 students in total, 48 being females. Ages range from 14 to 27 years old.

As in other centres, the students do not have a choice as to what course they might want to study. Everyone enrolled does agriculture before shifting to auto mechanics, welding, carpentry, plumbing and home economics. The students have little or no say about the centre. However, I was fortunate to speak with 7 male and 19 female students. Some of their views and concerns, and some of their aspirations are recorded here. Except for two Grade 5 students, one Grade 8 and one Grade 9 school leavers, all the other 22 students including the 7 male students were Grade 6 school leavers.

The female students shared similar, if not the same stories. Most of them have lived in their villages after finishing school. When I asked them why they chose to do vocational training, they said that they have no other work to do to enable them to earn money in the village. At the same time, they reported stories of arranged marriages, the cost of the bride price and the price that a lot of young women had to pay - in hard work and often in being beaten up and abused physically. Most of all, it cost their freedom and the capacity to generate their own income. Many of them insisted that they wanted to learn how to type and work a computer system. They said that home economics is useful but it would not find them a job easily. One of the students, Florence Benny, said, "Nowadays we go to look for work, but are told, they (employers) are looking for people with typing/computer skills". Asked what they may want to do on completion of their training, everyone agreed that they wanted to find work first.

Others went on to register their complaints about their dormitory that it is too crowded and unhealthy (see Plate 4.37). Then the head of the female students spoke up to the shame of the girls. She said that the pit toilet is far from the dormitory and because it is not safe, the girls use plastic
bags to excrete into during the night and they place them outside the dormitory. Early the next morning they would quickly go to the pit toilet and dispose of the waste.

Quite unlike the female students, the male students were more liberal and left room for flexibility when they complete their training. If they do not find wage employment then they would consider going to their village and setting up some sort of business enterprise. A brother of one of the male students owns and manages an engineering workshop in Lae and so that student is set to join his brother.

About 50 of the students have come from the coast. One, Ngi Robert, comes from Manus Province. Since he left school about a decade ago, he has traveled between Manus, Kavieng, Mendi, Port Moresby and now Goroka. Wherever he went, he learnt several things from tradesmen along the way, for example, cutting timber to build a house, operating a boat engine and a generator. Now he is training in the welding trades. Ngi bitterly complained of the unhygienic conditions of the dormitories and about the students' manners and behaviour. He says many students do not know how to use the toilet properly or sleep in the dormitory or dress as students, sharing of food especially is poor, and some have no respect for the teachers and school property.

Other students added that the dormitory is crowded and not very safe either (see Plate 4.38). Asked about what they thought about their teachers, they reported that many teachers are not busy. The teachers go to class in the morning but in the afternoon from about 3.00 p.m. classes are over and they head for home and many times they do not check the students, let alone the students' work and behaviour especially at meal times.

**4.2.8.8 Graduates Employment**

One thing, however, is certain and that is, at the end of the students' training, the majority wants to find paid employment. However, according to Mr Dayrit, about 30% find some form of gainful employment and about 70% return to the village. There is no scheme in place to assist graduates to find employment or help set up small business enterprise.

**4.2.8.9 Security**

Security problems at Kamaliki, as seen by the manager who lives in town, are not serious. According to him there was only one rape case in 1992 and the theft of food intended for boarders in 1995. The fence around the school has helped. Many teachers and students who live on campus
reported that in the daytime and inside the centre is safe. However, nights remain unsafe in all areas (e.g. dormitories, teachers' houses, offices and classrooms).

4.2.8.10 Community Links

The Kamaliki centre has good links with the surrounding community. The centre is known for the sale of its agricultural produce and woodwork from which the students gain practical experience as part of their training. During the last year or so, the centre has helped in building a local church and a shed, and assisted with a cash donation of K60.00 for the burial of someone in the community. At the time of my visit in May 1998, the GTZ, as mentioned earlier, was attracting much business in the trade areas, hence was providing a good link with the community.

4.3 Summary of Discussion

Chapter four presented descriptions of the eight major sites of the survey on the vocational training centres. The detail is essential as the major reference material for this thesis. It is only against a knowledge of the setting, the resources and the personnel that it is possible to make an assessment of the sort of education and training that is given, and can be given, in the vocational training centres. Further, that the detail is relevant to establishing the environment for further deliberations on matters of policy and standards in the provision of skills development training at the vocational centres.

Chapter seven focuses on the analysis of this reference material.
5.0 Introduction

The remaining five centres not studied in detail and related issues pertaining to vocational training in PNG are presented in Chapter five. Comments on St Joseph's Vocational Centre will be followed by Malahang, then Kassam, Komperi and Awande. Issues will be discussed in the following order:

➢ Village Development and Community Secondary Education
➢ Vocational Secondary Schools
➢ The GTZ Project
➢ Selection of Students (married, with babies, mature-age and ex-rascals)
➢ Language of Instruction

5.1 St Joseph's Vocational Training Centre

5.1.1 Location and History

Instead of the normal thirty toea per bus ride, it cost me K2.00 to get to St Joseph's Vocational Centre. The last urban bus stop is about a kilometre away from the centre. When I explained where I was going, the driver of the PMV Bus (public motor vehicle) kindly told everyone going to the city to find another bus while he took me to the centre. St Joseph's Vocational Centre is located along the Highlands Highway, about eight kilometres from Lae City in Morobe Province (see Map on page xx). It is a Catholic mission agency centre for male students only. The centre was built in 1963 when the Catholic mission purchased the land from local owners. The area was considered quite rugged with several creeks running through the property. This meant that the first students were more or less employed (not wage employment) to establish the infrastructure of the centre such as buildings, roads and the drainage system. It was considered part of their training so that they worked hard on practical jobs during the day, then received their theoretical instruction during the evenings.

5.1.2 Goals and Objectives
St Joseph's officially comes under the vocational system but the name remains as 'St Joseph's Technical Training Centre'. According to Bishop Henry Van Lieshout (St Joseph's Technical Training Centre 1983), the name indicates that this is a centre where 'technical skills' are being taught (see Plate 5.1). In essence, the name implies more of a function rather than a level of training. The centre has several aims:

- To provide an opportunity for further education for males who have left the formal education system
- To provide further education and development in the Christian faith of the students
- To make a worthwhile contribution to the development of PNG
- To give opportunity to local government councils, private enterprise, missions, family businesses and other community organizations to sponsor students for the development of projects in their own establishments
- To provide assistance to the community by the production of certain useful items such as coconut scrapers and for certain community or family projects

Gradually the centre was built to an acceptable standard so that it was recognized as a 'Carpentry School' in 1965 with the first graduates of carpentry-joinery in 1967. During the late 1960s and early 1970s, the demand for technical tradesmen was high. The centre's buildings and facilities were extended and more courses were offered. Several overseas personnel were recruited especially from the Netherlands and Germany to start teaching the new courses as suitable buildings became available. The instructors and students as part of on-the-job training of course constructed these buildings. A steel-fabricating/welding course was introduced in 1969 followed by motor-mechanics in 1972. General subjects such as English, mathematics, science, social studies (now social science) and religious instruction have also been offered from as early as 1972. According to the manager, Mr Ernest Zikbeh, who graduated from the Vunakanau Teacher's College in Rabaul in 1972, he has been teaching general subjects since 1973. The students can also choose to do CODE (College of Distance Education) courses particularly Grade 9 and 10 while they are at the centre.

5.1.3 Teachers

There are eight teachers, seven being nationals, one of which is also female, and the eighth teacher is a male volunteer from Germany. Those from PNG have come from various provinces: New Ireland, North Solomons, Manus, Morobe and Sandaun. The female teaches general subjects only. Mr Bernadict Kalai is the only teacher I briefly spoke with while waiting for the manager. Mr Kalai
is a graduate tradesman in mechanics from the Malaguna Technical College in Rabaul. Before he became a vocational instructor, he worked with what was then Commonwealth New Guinea Timbers, which is now called 'PNG Forestry'. He was trained to become a vocational instructor in 1983 at the Port Moresby In-Service College. Since 1984, he has taught in several vocational centres before coming to St Joseph's in 1998. Mr Kalai commented that it is good at St Joseph's, it is more advanced with its buildings and facilities, teaching materials and supplies; and there is sufficient teachers' accommodation.

5.1.4 Finance

According to Mr Zikbeh, the finance for St Joseph's is adequate. The funding comes from subsidies from the National Government, fees from parents and funds raised from the centre's own commercial activities. In 1998, the centre received a K20,000 subsidy for the first quarter. The subsidies for the second quarter of 1998 and the fourth quarter of the previous year, 1997 were not received at the time of my visit. The budget for 1998 was K150,000 and spending is expected to be less, about K120,000. The government of course pays the teachers' salaries. The centre sells products and services that bring in additional income. Some examples of the products are furniture, such as school desks from the Carpentry Department; water tanks, truck canopies, drum ovens and house trusses from the metal works of the Steel-Fabricating/Welding Department; and services such as lawn mower and car engine repairs.

Since 1972, the centre has been in full operation. Workshops have been built for each of the three specialized trade courses, and classrooms, teachers' houses and boarding facilities have been built. Again, the instructors and the students did the building. The centre has specialized in the three trades (carpentry and joinery, motor-mechanics and steel-fabricating/welding) only and the training is for two years. The courses are divided into theory, practical and general subject lessons. Asked how much time is given to practical and theory lessons, the manager said, "1,000 minutes for practical and 550 minutes for theory". For a moment, I thought he was joking, as I have not heard anyone speak this way. Indeed he was serious about it. I calculated it to be about 17 hours for practical and 9 hours theory, a total of 26 hours per week. I further checked this in the centre's handbook and this confirmed the hours for direct instruction as indicated by the manager. There still remains another 9 hours of the week that is spent on work parades, sports and gardening and extra curricula activities. Sports and gardening or agriculture are included in the weekly timetable but these take place more towards the end of the week.

5.1.5 Students
There are 124 male students, 72 of them being boarders. Previously, students enrolled were from Grade 6 only, but in more recent years, Grade 8 school leavers and those who have completed Grade 10 CODE studies have been enrolled. Again in the past, admission was restricted to the Lae area due to fear of encouraging urban drift by young people. The restriction has been lifted and students from the Bulolo and Wau areas are being accepted. Preference however is biased towards urban and semi-urban areas where the students have completed their schooling. The students' ages ranged from about 15 to 18 years. The Board of Management reserves ten of the places for sponsored students. The sponsors are mainly mission agencies, local government councils, national firms and family businesses. All the applicants have to do an entrance examination, and are interviewed by members of the centre's Board of Management (St Joseph's Technical College 1983).

As the manager and I walked through the centre, I spoke briefly to a few of the students in the mechanics workshop, the dormitory and the kitchen (see Plate 5.2). The students give the impression that they are contented.

One of the special features of St Joseph's is its active social life. Three of the extra-curricula activities featured quite prominently. They are the Tulip Band, the Mobile Drama Group and the Church Choir. The Tulip Band, which is a by-product of the Mobile Drama, gained popularity in 1974 by winning the Morobe String Band Competition Award. At the Arts Festival in 1980, the Tulip Bank defeated bands from other parts of Morobe, Madang and East Sepik Provinces. Since its formation over 100 students have played in the band. The National Broadcasting Commission has recorded about three volumes of music by this band and these are on sale throughout PNG. The Mobile Drama Group features traditional dances and short plays and became quite popular too in the city and the surrounding areas. The Church Choir is made up of a band, which specializes in playing church hymns. The choir sings and plays music during Sunday worship at the centre and it is invited to perform in other parishes around Lae.

5.1.6 Community Links

St Joseph's links with the community have not only been through the sale of products and services but also in a pastoral way. The centre has established quite good relationships with schools and various groups of people in Lae. St Joseph's has many time been invited to entertain and provide assistance in the fund-raising activities of these various groups. At the same time these
opportunities present one of the best ways for the centre to gain publicity (St Joseph's Technical Training Centre 1983).

5.1.7 Security

In general, security is not a real problem at St Joseph's. However, it was unfortunate that security was taken for granted when the centre bought its first computer in 1996. As a result, the brand new computer was stolen in the same year. The real threat to security at the moment is the squatter settlement nearby. Unless the centre is fenced, the people from the settlement will continue to walk through the centre to the main Markham road and this is an inconvenience to the centre.

5.1.8 Graduates' Business Enterprise

St Joseph's has established quite a reputable profile not only in Lae itself but also throughout the country where graduates have found employment. One of the notable results has been the establishment of a co-operative building construction and furniture factory, called 'J. O. B. Builders', which stands for 'St Joseph's Old Boys'. This company was set up by a group of graduates from the centre. In the 1980s, J. O. B. Builders was also expanding into steel construction. They have their own Board of Directors and attract many shareholders (St Joseph's Technical Training Centre 1983).

Not all graduates are involved in business enterprises. Some have chosen to dedicate themselves to religious life. Others have gone on to assist in mission work and in many cases have taken over work done by overseas volunteer workers. Sponsored graduates have also returned to the communities and organizations that sponsored them (St Joseph's Technical Training Centre 1983).

When the centre closed at 4 o' clock in the afternoon of 14 May 1998, I was given a ride in the centre's brand new DINA truck back to St Therese where I was accommodated. I felt however, disadvantaged not having had the time to interview students and staff and to get a real feeling for things at the centre. I have the impression though that the centre would be one of the model centres, leading the way in vocational training. This was quite encouraging to discover.

5.2 Malahang Vocational Training Centre

5.2.1 Location and History
This is another of the centres not studied in detail. Malahang Vocational Training Centre is a Level 6, government co-educational centre catering for both day and boarding students. It is located on the northwest side of Lae, at the corner of Malahang/Busu Road and Yanga/Sipaia Road (see Map on page xx). Malahang was established near a village called Yanga and originally known as the Bowali Vocational Centre. Due to limited land for further expansion of the centre, it was relocated to its present site on 11.5 hectares of land in 1976 and renamed the Malahang Vocational Centre. By 1984 and 1985, the total size of the Malahang land had been reduced to 5.9 hectares as the Yanga village clans reclaimed 5.6 hectares for themselves.

About 1,500 students have passed through Malahang in the last 21 years of operation. In 1994, the Board of Management recommended to the Provincial Education Board (PEB) to up-grade Malahang Vocational Centre to a Technical High School in line with the National Government's education reforms. The PEB endorsed this recommendation in the same year. In pursuant of this policy, the vocational centre inspector Mr David Matavut, had to find someone who is capable of transforming the centre from a vocational to a technical high school.

Mr Matavut sought Mr Julian Say who was known to be a very good manager of the Popondetta Vocational Centre in Oro Province. He was also known for his open book policy under which he produces a quarterly report to the Board of Management and the general staff indicating how much money has been raised and how much has been spent. According to Mr Say, this was a way to avoid creating suspicion and to demonstrate accountability. Under Mr Say's leadership, the Popondetta Vocational Centre developed to a reputable standard both in infrastructure and trade practices. One of Mr Say's success stories was the establishment of a trade store that earned the Popondetta centre approximately K4,000 per month. He left Popondetta about two years ago to build and develop Malahang into a technical high school.

According to Mr Say, in 1995 Kamaliki was better than Malahang. By 1998, Malahang had been transformed. It was early Friday morning when I arrived at the centre. I saw some of the female students weeding grass along a new footpath, while near the entrance on the left hand side was a class of male students digging and putting in posts, carrying and laying bricks – they were building a new mechanics workshop (see Plate 5.3). Towards the centre to the right hand side, another group of males were digging drains and putting in water pipes. After meeting the manager and staff I was taken on a tour around the centre. I was shown the original plan where certain buildings had been erected and where changes either by renovations or additions or complete new constructions were taking place. It was quite a remarkable achievement to see the change that has taken place in the last two years, and more building and constructing continues (see Plate 5.4).
5.2.2 Teachers
There are 17 teachers, 5 being female. Except for two of the teachers, all the rest are nationals. Since the centre is in transition to a technical high school, the qualifications of the teachers vary widely from agriculture, trade and teaching certificates to diplomas in secondary teaching and home economics. About three of the teachers have diplomas. The manager himself has a Masters Degree in Engineering, Architecture and Building Construction. The concern over the varied qualifications of teachers is also shared by the centre administration. Speaking with the manager, I gained some insight into his observations about the abilities and the confidence of the teachers. He believed many of the teachers lack the self-confidence to enable them to contribute effectively to the training of the students. His comments specifically focussed on understanding today's students and society. PNG society has changed and will continue to change, but he believes the teachers are not properly equipped for adaptation to these changes. The manager suggested that the teachers should have some understanding of educational psychology and sociology. This would help when dealing with today's students in a changing society.

5.2.3 Students

There are about 300 students, 100 being female. Of the 300 students, only about 50 are boarders as boarding facilities are slowly being phased out. When the centre becomes fully operational as a technical high school, boarding facilities will be abolished. Malahang would then be open only to those "living within the vicinity of the school or those who can provide their own transport to and from the school daily" (Morobe Administration, Division of Education 1998:83). Although the students are all Grade 6 to Grade 10 school leavers, they had to do an entry test (see Appendix 4.6). Those who passed the test were then selected for training. There is no age restriction.

Friday was not convenient for interviews, it seems, but I was fortunate to interview at least five of the eleven second year catering students. Although males are allowed to do the course in catering and there had been one male graduate previously, this class had only female students. The five I spoke with all come from the Morobe Province. Their ages ranged from 17 to 19 years. I asked three general questions:

- Why did you choose to come to Malahang Vocational Centre?
- What have you learnt about catering?
- How do you plan to use what you have learnt? Or in other words,
- What are you going to do when you complete your training?
Margaret Awabo, a 19 year old said she chose Malahang because her friends were going there. Mulu Jethro who is 18, also chose Malahang because of a friend but added that her parents found out about Malahang and had advised her about it. Betsy Kamdring a 17 year old said she went to Malahang because her aunt forced her to go there. "It was an accident", she said, that brought her to the centre. But afterwards she came to like Malahang and the catering course. Ashley Kulip is 18 years old and the only one in the class who is a Grade 6 school leaver. During 1993 and 1994, Ashley went to St Therese Vocational Centre. But after her training she could not find any job so she stayed home in her village for another two years. Her parents found out about the catering course in Malahang and decided to send her there in 1997. Paula Patrom is 17 years old and came to Malahang because her parents decided for her.

With regard to the question about the value of the course, all five students said they find the catering course good and enjoyable, and that they are learning about new recipes, about cooking and actual catering. One of the most important skills they have learnt is calculating the cost of catering. Every one of these students said they have done 'costing' and that it was important that they have.

Responding to questions about what they may want to do when they complete their training, only one, Mulu Jethro, said she wanted to set up her own business with the skills she has learnt - that she would get capital from her family and start up her business in catering. All the rest said they would look for a job and two added they would also want to do further studies. In a copy of one of the entry test papers completed by a catering course applicant, the student wrote the following reason for wanting to train at Malahang:

I want to be a trainee of Malahang Vocational Centre because through my observation. I see that many student graduate out from Malahang Vocational Centre went out and get jobs. Also according to myself I don't want to stay and doing nothing in the village, I want to find job but I found out that it's difficult for me to just go in and get job so I came here to get more knowledge or upgrade my marks so that it will be easy for me to go out and find jobs (David, Bewa 1998:2).

Towards the end of the interview I asked the students about their security. Their admission of fear, of a sense of insecurity, echoes those spoken in other centres. The buses and the roads are not safe they said. That is why the centre closes at 3.00 p.m. One of the girls, Mulu Jethro, described a 'bus hold up' by rascals where bags were stolen and a knife was put to her niece's head. Another incident described by the girls took place when a group of them were travelling to Malahang and the driver stopped the bus and got out then the off-sider took over the driving. According to the girls, the off-
sider drove too fast and was overtaking every other vehicle on the road and even went past Malahang so that they began to scream and shout in fear before the driver stopped the bus and let the girls out.

5.2.9 Curriculum

The program at Malahang Vocational Centre lasts for two years. The courses taught at present include academic or core subjects, which are English, mathematics, science and social science. Then there are the enrichment subjects such as library, religious education, physical education and guidance. It was pointed out that Christian religious education is allocated one period per week as prescribed by the National Department of Education. Trade courses include carpentry and joinery, auto mechanics, panel beating and spray painting, brick laying and masonry, agriculture, catering, garments and welding. The students' attitude to agriculture in Malahang is the same as in other centres. Only two students applied to enrol in agriculture, all the rest joined due to places being filled in the other trade courses. At the moment the students do 10 weeks of practical work experience in private companies in the city, including hotels and restaurants.

The Department of Education of the Morobe Province is one of the few provincial departments that has taken the education reform idea and 'ran with it' so to speak. The Provincial Education Office and the politicians in Morobe are supporting educational initiatives and developments in the province. In supporting the conversion of Malahang Vocational Centre into a Technical High School, the Provincial Education Program Adviser, Mr Bruce Jowa, said, "The Division will ensure that appropriate funding is allocated to these important programs of education" (Morobe Administration, Division of Education 1998:iv). I also had the opportunity to meet with Mr Albert Tsika (pronounced Chika), the Senior Program Adviser in the Morobe Division of Education, who spoke highly of the Division's commitment to the reforms. He supports the view that funds must be found to ensure the success of the education programs in the Province. The paragraph below on the centre's finances confirms the commitment Morobeans are making to education.

5.2.10 Finances

The finances of the centre are neither stable nor steady but it is hoped that they will be sufficient especially in the process of transforming the school from a vocational centre to a technical high school.
The total income in the last two and a half years stands at K474,000 for the whole centre. The government subsidy at the time of the visit was K24,800 and a further grant of K36,000 totalling K60,800 has been made. Another source of income has been the parents' payment of project fees at K50 per head for 300 students and this has brought in about K15,000. A German Fisheries donation of K10,800 and local parliamentarians such as Mr Bart Philemon gave a donation of K30,000 and Mr Kennedy Wenge a further K10,000. Besides the reconstruction and erection of new buildings, general service costs of electricity (K600 per month), water (K600 per month) and telephone (K300 per month) had to be met, and then there was other expenditure on consumable goods for both boarding and instruction.

Problems, as seen through the eyes of Mr Say, include social problems of drinking alcohol and swearing by students. And mathematics pose special problem for students too. For instance, students can calculate $\frac{1}{2}$ but find, say $\frac{1}{4}$ or $\frac{1}{3}$ different to calculate. Mr Say commented strongly that the school system is geared for white collar jobs but this country is of lands and forests, yet the curriculum does not cater sufficiently for the natural resources. He also observed that the primary and secondary schools are not up to standard and that school leavers will continue to be a real problem to society because many cannot relate and apply the brain to the hands.

Mr Say further observed that local managers have a weakness in management and accountability. He cited an example of how in 1993 an order for school desks was placed with Malahang for K21,000. This money was misappropriated and the goods were never delivered. Moreover, the local manager was known to have used money belonging to the centre in entertaining his colleagues with beer drinking even at the centre itself.

Comments from outside the centre at present express approval for Malahang, confirming that the physical appearance of the centre and students' appearance and attitudes have improved a lot.

5.3 Kassam and Komperi Vocational Training Centres

Kassam and Komperi Vocational Centres are both owned and administered by the Swiss Mission - the Evangelical Brotherhood Church - in the Eastern Highlands Province (see Map on page xx). Kassam is a male boarding school and Komperi is the female boarding school. The students do not take leave until the two years of training is up. Both centres operate as permitted schools under the Education Act 1983. The language used in these centres is predominantly Pidgin or Tok Pisin. There were no detailed interviews conducted in these centres. Time was a deciding factor.
5.3.1 Kassam

5.3.1.1 Location

Kassam Vocational Training Centre is located near the Yonki Hydro Power Station along the Highlands Highway in the Eastern Highlands Province. The site of this centre is breathtaking, beautifully designed and built on a hillside. It could be mistaken for a European village. I had the privilege of having lunch with the manager's family so I had a chance to see inside one of their homes. Indeed it was very European, but in vast contrast to others observed elsewhere. The centre is well organized, orderly and beautiful.

5.3.1.2 Teachers and Students

The centre has two managers, Mr Thomas Strassler is manager for the Building Department and the School in general; and Mr Ruedi Meier is the manager for the Mechanics Workshop. They are both expatriates and the only teachers. There are 33 male students, 17 in year one and 16 in year two. The students are mostly Grades 6 and 10 school leavers. These students have come from the church circuits all over the country. They have travelled from Lae, Goroka, Banz, Kainantu, Port Moresby, Obura, Sausi, Kawaka (Kassam), Komperi and Popondetta.

5.3.1.3 Vision of Kassam

The vision of this centre is presented in Pidgin, *As bilong skul*, which says:

*Insait long taim Treni i stap long Senta bilong mipela em i mas kisim save long work (Trade) bilong em (On the Job), em i mas lainim moa long Tok belong God na Kristen pasin na em i mas kisim skul long kainkain samting helpim em long winim gut laip bilong em na stap gutpela sitisen (eg. self-discipline, perseverance, punctuality, etc)*

(The foundation of the school says:

While the student is in our centre, he must gain skills for work (trade) for himself (on-the-job), he must learn more about God's Word and Christian living, and learn other things to help him live a successful life and be a good citizen (eg. self-discipline, perseverance, punctuality, etc)

(Evangelical Brotherhood 1998).
The centre expects that their graduates can build, make furniture and can work on mechanical problems without supervision or help.

5.3.1.4 Graduands Assistance

To assist the Kassam graduands, the trainees construct a toolbox as part of their skill development project, and fill this box with basic carpentry tools. This is made possible through the construction and sale of furniture and other items to the public and by fulfilling specific client requests. This scheme helps the graduands to put their skills to good use when they complete their training.

5.3.2 Komperi

5.3.2.1 Location

Komperi Vocational Training Centre is situated in the Komperi valley between Kainantu and Hengonofi, along the Highlands Highway in the Eastern Highlands Province. The centre is also built on a hillside, surrounded by beautiful flowers and is very neat and orderly. The buildings, including staff housing, classrooms and the girls' two dormitories, have been well maintained and cared for. The girls' dormitories are impressive and very home-like (see Plate 5.5).

5.3.2.2 Teachers and Students

There are four female teachers, one being an expatriate. The three national teachers have graduated from the centre. There are 31 students together. They are a mixture of Grades 2, 3, 4, 6 and 8 school leavers. There are however, two girls about the age of 15 who have actually not been to school at all. I spoke to Catherine Peter (in Pidgin), one of the illiterate girls, and asked why she came to the centre. She said, "Stap long pies na kam long hia. Laik bilong mi, mi bihainim bikpela, mi wok long bikpela" (I was living in the village then I came here. It was my own wish to come here. I follow God, and I am working for Him). At the time I met up with her she was sitting all alone in the dormitory reading the Bible (see Plate 5.6). The Teacher, Ms Oname Marafa, explained that the teachers are helping the girls to learn to read and write. The courses offered at the centre are: bark work (handicraft), cooking, sewing and literacy, but no maths.
As I was leaving the girls to return to the vehicle, one of the Teacher Assistants, Rusita Menda, came up to me and asked me to give her my address. She wrote me a letter that I think I ought to include in this text. This letter tells of the need for literacy and for teacher training at this level.

Rusita Menda
Komperi Vocational School
Private Mail Bag No. 2
Kainantu E.H.P. 443
Papua New Guinea
13th of June 1998

Hallow Rona,

I hope you are 100% fine there at Australia. Before we proceed on lets thank our Lord for His Love, care, protection, durdence and peace during our life time up to here. We can thank our Heavenly Father for he is God and greater of all univers. Aman.

Sorry I am not good at speaking english, but if there is mistake please forgive me. First of all Am going to introduce my self first. My name is Ruseta Menda, I am single and female. I completed my two years of training at girls vocational school at Komperi. And they selected me as a teacher, the one you have been visited when we were in the classroom and the one who was making the pertsworks blanket. I come from Okapa earia in Eastern Highlands Province. And allso I am that kind of person who wants more education and knowing about different countries and at the same time seaching for some jobs.

And so I want to know about you. What is your job there, where did you come from, are you single? and I want to know more about you and Australia.

That's all from me and receive from you soon.

THANK YOU!
By RUSETA MENDA

5.3.2.3 Finances

The school fee for the centre is only K60. The centre raised funds from the bark work, handicrafts and sewing. The bark work is quite a popular product pursued by the Christian Bookshops in PNG and it has a ready market (see Plate 5.7).

5.4 Awande Vocational Training Centre

5.4.1 Location and History

Awande Vocational Centre is a government co-educational training centre located at the Okapa Government Station in the Eastern Highlands Province (see Map on page xx). The centre has its

24 To protect the privacy and the identity of the Writer, I have not used her real name.
origins in what was then the kuru research hospital. When the hospital was no longer needed in 1973, the actual hospital was given to the Lutheran Church which got burnt down in 1997. The other part of the hospital where the staff quarters were located was given over to the Department of Education and hence, the establishment of the Awande Vocational Centre. As a result, Awande has good buildings - the manager's house, four Staff houses and two dormitories for students are in good conditions (see Plate 5.8). There is also a chicken house, two workshops (one built under the manager's house) and a fish pond. The only building that really needs reconditioning is the building that is divided into three parts: one general classroom, home economics and as the student's kitchen (see Plate 5.9). There is also a 'cool room' donated by the New Zealand government for vegetables and especially strawberries for storage and marketing purposes.

I was discouraged from going to Awande. There was nothing to see and the road is real bad, someone was telling me. Indeed, crossing over 34 bridges, the road from Kainantu to Okapa is one of the worst I have experienced. It was rough and bumpy, really dangerous and there were not enough seat belts for everyone, in fact no one wore a seat belt. Two of the elementary school coordinators, Benjamin Mankly who drove the vehicle and Suita Kawavina travelled with me. Along the road to Okapa many people especially women were waiting for transport to take their garden produce to the Kainantu and Lae markets. On the way we stopped at the Tipanka Primary School which has Elementary and Top-Up Grades 7 and 8 components. We met briefly with the Headmaster then with the local men helping to built two new classrooms. On this day, Thursday 7 May 1998, the men were weaving pitpit to make walls for one of the classrooms. We learnt that another elementary school co-ordinator from the Okapa area had come and stolen the 'walkabout sawmill' from the school. He believed a politician of the area donated the sawmill and that he should have access to it as well. How they plan to resolve the situation was not known at the time. What was heartening though was that the elementary school children brought vegetables for us and almost filled the vehicle. The teacher even gave me a bilum or a string bag. They were so good hearted, for we gave nothing but a 'talk'.

Then on arrival in Awande, there was no one in sight. We drove through the tall grass and stopped outside the manager's house. Getting out of the vehicle, we were greeted by two large pigs feeding on the rubbish surrounding the centre. I checked the manager's house and found that the manager's

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25 Kuru or 'laughing sickness' is a fatal disease of the nervous system found among the Fore people of the Eastern Highlands Province. The evidence for the disease dates back to about 1920. Europeans observed the first cases of the disease in 1952 and by 1953, it was known as the major cause of death in the area. However, by the late 1960s, the disease began to wear itself out and therefore, the research hospital was no longer needed. For further reading, look up F. M. Burnet (1972). "Kuru" in Ryan, Peter (ed.). Encyclopaedia of Papua New Guinea, Vol. 1, A-K, Melbourne University Press in association with the University of Papua New Guinea. Also see Nelson, Hank (1996), "Kuru: the pursuit of the cure and the prize", given at National Academies Forum and Humanities Research Centre. Typescript and later published in the Journal of Pacific History.
brother who is partially handicapped was alone in the house. He told us that the manager had gone into Goroka town. We figured it was payday that day and left it at that. I looked inside the house, the flush toilet was in good condition and the rooms were spacious but with little furniture. The house was freshly painted like most of the other houses.

5.4.2 Management

A little later on, two young and one old men turned up. By then it was lunchtime so I made up sandwiches with the bread and corned beef from Kainantu and we ate lunch together. While we ate we talked. The two young men said that they wanted to come to school at the centre but there were no teachers. "Sampela planti i kam tasol nogat tisa" (Plenty are ready to come but there are no teachers), they said. Apparently there have been a number of manager changes in the last four or five years after the departure of the expatriate manager. According to one source, a former teacher from Awande, the expatriate left the centre with a healthy account of about K13,000 and a vehicle that was purchased with money from the sale of strawberries. In the middle of the 1990s, the new manager mismanaged the funds and crashed the vehicle on the Markham Road in Lae in 1996. The manager was then transferred to another vocational centre in the Eastern Highlands in 1997. There was no auditor's report and acquittals were said to have been thrown out as not being trustworthy.

A new manager and two teachers were appointed in 1998. However, the Provincial Education Planner decided to appoint a high school agriculture teacher who happens to come from the same area as the Planner, overruling the earlier appointment. The high school teacher appointed manager decided to take up his post in Awande, and the earlier appointed manager and the teachers fled the centre. The former manager found a teaching post in Kamaliki centre but the whereabouts of the teacher was not known.

Since the centre was unofficially closed, it was difficult to get accurate information about the centre's operations, staff, students, courses and about the community and so on. Information from a few of the former teachers I met in two of the other centres in the province confirmed that Awande was an agricultural centre. Strawberries and other vegetables do very well in Awande. As observed along the road, the land combined with the climate is well suited for agriculture and the villages in the area have benefited.

5.5 Other Vocational Training Issues
As pointed out at the beginning of this chapter, there are five issues relating to vocational training that need to be discussed separately.

- Village Development and Community Secondary Education
- Vocational Secondary Schools
- The GTZ Project
- Selection of Students (married, with babies, mature-age and ex-rascals)
- Language of Instruction

5.5.1 Village Development and Community Secondary Education

5.5.1.1 Village Development Scheme

Literature on this development project is limited except what is documented in the Education Sector Review (Department of Education 1991). Brief telephone interviews with the manager for Malahang, Mr Julian Say, and Mr John Vilivili the Project Manager for Vocational Centres on 7 September 1998 confirm the findings of the Sector Review. The Project on Village Development Centres was set up in five of the original Junior Technical Schools, namely Popondetta in Oro Province, Kamaliki and Agarabi (now moved to Basenenka) in Eastern Highlands Province, Vanimo in Sandaun Province and Malalaua in Gulf Province. This pilot project was part of the Education I funded project financed by the World Bank through the Department of Education. It was introduced in 1977 as a pilot project, and trialled for a period of five years.

The project has two specific objects: to encourage village-based training and to promote integrated rural development. The second objective has involved joint management committees that include most departments at the national, provincial and district levels. The project has been provided with a co-ordinator at headquarters, regular staff visits, consultants and evaluators, and staff-training programs (Department of Education 1991). Moreover, four-wheel drive vehicles were provided together with financial support to operate the centres.

The Village Development Centres Pilot Project (VDCPP) was set up as a result of dissatisfaction over the performance of the vocational centres soon after independence was granted in 1975. It was reasoned that many of the centres offered a one year program which was insufficient to acquire adequate trade skills and this led to ex-students not being able to contribute to village development in any significant way. The National Department of Education then decided to re-orient the vocational centres by running a variety of short courses, workshops and village-based training sessions. The target audience has been adults in the communities and villages. Therefore, when the
VDCPP was set up, it was assumed that the orientation of the project would benefit the mature adults who were presumed settled and committed to life in their village communities. The approach taken to carry out the programs and the subsequent results are explained in the Figure 5.1 presented below.

The figure below show village development centres A, B and C. Centre A illustrates what happens when trainees come to the centre but there is no follow-up on them when they completed their training and returned home or go to other destinations. This was the fashion before the VDCPP was set up. Centre B illustrates another phase of the operation of the VDCPP. The instructors went out from the centres to the villages. According to the Sector Review (Department of Education 1991), there was a time in the five-year trial when the centres stopped trainee enrolment and concentrated on the village-based training as mentioned earlier. For some of these centres, the existing infrastructures were neglected. They were under-utilized, and they were not maintained. The centre C is the ideal model for the VDCPP. One of the ideas behind this model project was for the staff to go to the villages, the catchment area, identify leaders and bring them to the centre to train. The leaders in turn would return to their villages and teach what they learned at the centre. In this way the information and skills learned would have a multiplier effect. Unfortunately the centre C model, a two-way kind of system, was not trialled.

Figure 5.1 Approach to Village Development
Even though there were a co-ordinator from headquarters, evaluators and consultants for this project, at the end of the five years it was considered a failure. The reasons for the failure according to the Education Sector Review (Department of Education 1991: 124), were: "a lack of commitment, training, supervision and mis-use of resources". The review considered that the key beneficiaries in the village-based training were the women. Though there were no explanations given for this, I think that it was due to accessibility. The women were able to attend training without having to go away from home and family. Another obvious explanation would be the visible signs of change observed in the way women care for their households. For example, they could be assessed in terms of the cleanliness of their houses, the way they were sewing clothes and doing their laundry, and how they were keeping their kitchens clean and changing the ways food was prepared and cooking using different recipes and methods as a result of their training in home economics.

By 1982, World Bank funds were exhausted and the pilot project was closed. Three of the centres reverted to being conventional vocational centres, continuing to enroll trainees with minimal extension activities in the surrounding villages. Only one of the centres became a high school and another, Agarabi (which is discussed earlier under Basenenka in point 4.2.6) has closed. Surprisingly, the Review found that the approach was revised and repeated in three other centres in the Gulf, Sandaun and Central provinces but again these too failed for the same reasons.

Other similar vocational centre and related village-based training schemes sprang up in various parts of the country particularly around the late 1970s and early 1980s. A notable one was the Anelaua Vocational Centre in the New Ireland Province. The training was geared towards teaching adults either at the centre or in the villages where workshops and short courses were provided. The training provided was in small-motor mechanics, ferro-cement water tank construction, and health and nutrition. The success of the Anelaua Vocational Centre and other centres in the New Ireland Province was due in part to the Harms Seidel Foundation (HSF) so that when HSF withdrew their support in 1989 these programs suffered.

Apart from budget constraints, one of the most common problems encountered in village-based projects is dependence on untrained teachers. They have been called 'aids' or 'helpers'. They are paid from the centre's revenue and are not included in any form of in-service or staff development program. These helpers are often unemployed Grade 8 school leavers or youths that may have had
some work experience with a church or have been recognized for some form of community service. Others may have been graduates of the program themselves but they are not properly trained as instructors. It is difficult to obtain consistent performance from the village instructors.

5.5.1.2 Community Secondary Education

The problem of out-of-school youth is so worrying that people come up with anything that looks like doing something for them. So apart from 'village-based training' is another program called 'Community Secondary Education' (CSE). Unlike the vocational secondary schools mentioned in point 5.5.3 below, this program was informal and specifically designed for 'out-of-school youth' in their own communities. It appeared rather popular in the middle of the 1970s when the growing number of Grade 6 school leavers who could not be absorbed into the secondary school system were causing concerns. Centres were set up both in the villages and in towns. The material supplied for the academic subjects was reported to have been illustrated in a 'comic book' fashion. They were sold to the students for K10.00 per book (Department of Education 1991). The programs were run by a supervisor and managed by village-based communities. The supervisor was often a volunteer whose subsistence was not subsidized at all. Organizations such as the Young Christians Association (YCA) also had CSE centres in the urban areas. The centres had a five-pronged program including:

- Academic studies (English, mathematics and general education)
- Vocational studies (practical modern skills)
- Cultural studies (local, regional and national communities)
- Community service (they helped with pre-schools, literacy, community centre or aid-post construction)
- Sports

The vocational studies involved duck raising, sheep and goat management, growing orchids, cash crop production such as tea, coffee, pyrethrum, palm oil, rubber, cocoa and coconut projects. There were also small-enterprise skills in fishing, peanut growing and processing, manufacture of charcoal, outboard motor repairs, sewing machine maintenance and the use of a mini sawmill. The program was considered progressive and exciting in the middle of the 1970s, but lasted for only three years. It was reported that the program received a positive evaluation in 1978 and was to be continued. The report recommended that the CSE be up-graded, the academic materials be re-issued and that the volunteer instructors be given training and be paid the rural minimum wage.
These recommendations unfortunately were not put into practice and the program has since been abandoned.

5.5.2 GTZ Project

GTZ is a German Agency for Technical Co-operation, often referred to, as PNG-GTZ. Its Vocational Training Project is a result of a government to government agreement between the PNG and the German Governments. A brief history as to how this project came about has one source saying that the project is a result of a PNG Government visit to Germany early in 1990s. A team of officials from the Department of Education visited and observed technical vocational establishments in Germany and asked the German Government to assist in setting up something similar in PNG. While another explanation is based on a report made by a German consultant on vocational training in PNG in 1993 (Tietze 1993). An socio-economic survey was carried out on six vocational training centres throughout the country. The centres were randomly selected from rural and semi-urban areas in the four regions. They were:

1. Highlands Region - Kamaliki
2. Momase Region - Bulolo
3. New Guinea Islands Region - Manus and Raval
4. Papua or Southern Region - Marshall Lagoon and Kiunga

These centres became the pilot project sites. All except Marshall Lagoon Vocational Centre were later abandoned due to security problems.

The survey found the following problems in the six vocational centres:

- No clear policy direction at national and provincial levels
- Low status
- Terminal (no link with further training)
- Each centre has its own program/curriculum
- Extremely poor in resources e.g. workshops, equipment
- No uniform approach
- No co-ordination
- No linkage with industry
- Poorly trained staff (refresher course/in-service)
No plan as to how to assist graduates

The focus of the project was to assist in curriculum development, which is competency based and oriented towards industry. The curriculum is also aimed at meeting the requirements for National Competency Standards.

Phase I of the project began between 1993-1995 and Phase II from 1996 to May 1998. A review of the project was undertaken in May 1998 which extended the project duration for a further three years with an addition of nine more centres to the original six. It was also agreed that the project phase was over and the concept of competency based training was to become an integral part of all vocational training. Phase III was to conclude the project at the end of March 2001. Interestingly, GTZ is continuing in another phase referred to as the 'research phase'.

The cost of the project, shared between the PNG and the German Governments, is arranged this way: PNG Government is responsible for the national staff including salaries providing a total of K652,000 and German Government provides the project with a total of K3 million. With the extension, Germany has agreed to pay another K2 million per annum for the remaining life of the project.

From my observation of the project I believe that GTZ has made a tremendous impact on creating awareness nationwide of the vocational training sector. GTZ revealed in a major way, through the media, some of the problems and programs GTZ conducted especially to assist the managers and manageresses. During 1999 and 2000 training workshops were held in Bulolo, Manus, Bwagaoea and Tinputz vocational centres on issues of management skills, competency based curriculum development and entrepreneur skills. However, some problems were observed GTZ could be creating an elite group of managers who attend more of the sessions, as each workshop theme was different. Also only a few of the vocational inspectors were involved. Therefore, while the impact was generally great in creating awareness, the majority of the centres remain unaffected.

GTZ has also assisted in providing building materials to construct workshops, classrooms, teachers' houses, workshop equipment and computers. A few of the centres that have benefited this way are the Kamaliki in Eastern Highlands, Manus in Manus Province, Bwagaoea in Misima, Milne Bay Province, Raval in East New Britain Province and Tinputz in Bougainville.

Furthermore, GTZ coordinated with the National Apprenticeship and Trade Testing Board, to assist in setting up Trade Testing Centres. GTZ equipped for example, the Raval Vocational Training
Centre for this purpose. This means that graduates can get trade tested and so get certified according to particular trade standards in motor mechanics, carpentry and plumbing.

It seems that GTZ could do more and make a real impact broadly across in the vocational sector. Unfortunately, the Department of Education, especially the Technical Vocational Education and Training Division, and GTZ management did not seem to, or want to, be integrated. As observed by the GTZ teacher mentioned earlier while discussing Kamaliki, all parties (NDOE and GTZ) involved were not well coordinated, and in the centres the supervision of students and financial accountability were seen to be areas that need improvement.

Nevertheless, GTZ can congratulate itself that indeed it has made an impact and moved the vocational sector forward. There are now three other aid donors namely, AusAID, European Union (EU) and the Asian Development Bank (ADB) interested in vocational education and providing support with finance and technical assistance. It is beyond the premises of this thesis to look further into the area of funding the sector, but it would be interesting to observe the progress and impact donor agencies will make to the vocational training sector during each donor program.

5.5.3 Vocational Secondary Schools (VSS)

Under the current reforms in the Education system, Vocational Secondary Schools have been proposed as a development arising from the existing vocational centres. This scheme will place students in two main streams, one being academic and the other skill (practical) training. It is further proposed that the academic stream will have weighting of 60% and the skill component (practical) 40%. This means that more time will be devoted to the academic subjects such as maths, science, English and social science and less to the trade skills. The idea however is not new. In the late 1950s, the junior technical schools had a curriculum that was about "equally divided between general subjects - English, social studies, arithmetic and science - and practical work" (Ryan, 1972: 1121). The practical work involved bench work and drawing to develop skills that enabled students to handle tools and equipment. Much of the time though, was spent in 'on-the-job training'.

The vocational centres moving in this direction are: Rabaraba and Kuiaro Vocational Training Centres, both in the Milne Bay Province. The other centre that will become a Vocational Secondary School is the Malahang Vocational Training Centre in Lae, Morobe Province. Malahang has been discussed in 5.2 above. At a meeting in June 1998 with the Secretary for Education, Mr Peter Baki, it was revealed that the European Union (EU) was providing K3 million to begin building and developing the infrastructure.
The comments made by teachers and managers in the centres were that: the Vocational Secondary Schools may reduce the level of skills training due to the reduction in time allocated for practical skills; and that VSS graduates may be considered second class secondary school leavers because originally the students are dropouts and failures who were not acceptable to the normal high schools (Knights 1998). It also appears rather unfair that the VSS students are expected to sit for the same Grade 10 exams as those in the normal high schools. At the same time, the financial flow for the centres is very limited and restrictive. Government subsidies owing to many of the centres have yet to be paid (Knights 1998), so it is uncertain what funds are there to actually build and renovate the centres in order to provide for the VSS.

The Project Manager, Vocational Centres, Mr John Vilivili (1998), in his report on Kuiaro made a list of needed facilities that will prove to be expensive:

- 1 x library plus books
- 1 x science block plus equipment
- 1 x staff administration and office block
- 1 x storage room
- 2 x ablution blocks
- 2 x septic toilet facilities
- 2 x 80 person dormitories
- 3 x trade buildings plus equipment
- 1 x home technology building plus equipment
- 2 x academic classrooms, plus curriculum materials for grades 9 & 20 including teachers' books
- 1 x kitchen and mess
- 1 x generator (70-75 KVA)
- 1 x water pump complete with reticulation system
- 9 teachers' houses

Perhaps the K3 million earmarked for the Kuiaro centre is enough to construct the required infrastructure, but would the EU and other donors who are now interested in the vocational sector be prepared to outlay similar funds for the remaining 100 or more centres? The list above is for Kuiaro alone, other centres have their own specific needs such as those listed for Basenenka in Appendix 4.4. For Basenenka in its current condition to move into Vocational Secondary School would mean everything listed for Kuiaro plus more because it has an agriculture component.
Kuiaro began operating as a VSS in 1999. By November 2000, a display of products made by the students was staged in the Alotau town (about 4-6 hours away by boat). It was a very good initiative to transport the 'open day' for the centre and staged it as a display in town as Kuiaro is isolated semi-urban centre. The display included items of wooden furniture, welded drum ovens and patrol boxes, garments and other clothing items, cooking and baking using the drum ovens on display and fishing gear which was not in the original list.

Crowds of people were drawn to observe the display with the assistance of music provided by the NBC (National Broadcasting Commission) in Alotau. Many of the items on sale were sold. It was an excellent way of promoting the centre for new intakes and to legitimize, in a way, the centre's existence as the optional route to gaining secondary school status. However, the quality and the range of products presented was basically a replica of that of a regular vocational centre. There was nothing outstanding to make Kuiaro Vocational Secondary School different from other vocational centres. But perhaps given time, Kuiaro might prove to be the model school option for a secondary level qualification with a vocational technical bias.

5.5.4 Selection of Students (Women with Babies, Mature-Age, Married Students, and Ex-Rascals)

There is neither uniformity nor strict guidelines in the selection of students so that the centres are open to outside manipulation. In the past, women who had babies, those who were married and anyone over the age of twenty or had been involved in criminal activities were normally not selected for training at the centres. Today that seems to have changed; though the new policy is unwritten. Women who have babies leave them at home, some in the villages; those who are married, mature-aged and with criminal records are entering the vocational centres. A teacher in Morata said, "With free education, we cannot stop anyone including the over-aged and married people". Another teacher in the Eastern Highlands explained that, "We have to be careful in refusing applicants because some of them could be rascals". So the question of security comes into play even in the selection process.

Indeed there have been rascal elements inside the centres. I had the opportunity to interview five former rascals in the centres. Brief stories are presented in the following section, the names used are fictitious and personal details are not disclosed.

The first student is called Teri. He is 21 years old and he left primary school at Grade 6 in 1991. For six years he said, "Mi stap natin long peles" ('I stayed doing nothing in the village'). "Hau na yu
bin kam long hia?" ('How did you come here?'), I asked him. Teri went on to explain: "Taim mi lusim skul, laif bilong mi ino gutpela. Pasin bilong raskol i pulap. Nogat wei long painim moni. Pasin nogut mi save mekim: blokim rot na sekim PMV [Pablik Moto Vikol], kisim moni na kago bilong olpasindia. Mi save stilim kago long stoa tu" ('When I left school, my life was not good. I was filled with the ways of rascalism. There was no way to find money. I did bad things. I blocked the roads and checked the PMVs [Public Motor Vehicle], I get money and cargo from the passengers. I steal cargo from the stores too'). In 1997 he learnt about the vocational training centre where he is now located. He realised rascal life was not good. He said, "Mi laik gudlaif, mi na femili bilong me" ('I want a good life, me and my family'). Teri is in second year doing a mechanics course and hopes to find paid employment when he completes his training.

The second is named Alex. He is about 23 years old. Alex left high school in Grade 10 in 1995 due to non-payment of the school fee of K600. As for the Grade 10 final exams he said, "Mi no mekin" ('I did not make it'). "Hau na yu kam long hia?" ('How did you come here?'), I asked. "Mi save long laif bilong edukeisen "Mi tintin mi mas pinisim edukeisen long mi long hia " ('I know what education is all about. I have been thinking that I must complete my education here'), he said. In 1996, he was involved in a break and enter and stole dried coffee beans. He was caught by the police and locked up in a police cell. His mother bailed him out for K50. After this incident he decided that, that was not the way to earn money. "Em i no gutpela laif tumas" ('That is not a very good life'), he said. He was also ashamed that people in his village said he was a 'stilman' ('thief'). Like Teri, Alex is doing second year in the mechanics course but said that he needs more depth in what he is learning. Alex also hopes to find paid employment when he completes his training.

The third is known as Bira. He is 24 years old. He left high school at Grade 7 in 1989. His parents are old and subsistence farmers. Every Christmas they had to work hard to come up with enough cash for each school year. It was a struggle and sometimes the parents had to 'dinau' or borrow money. "Olsem mi lusim skul" ('That is why I left school'), he said. After that he lived with his parents. He helped his parents by fetching firewood and water and working in the gardens. But inside the community he said his reputation (name) was not good. "Nem bilong mi i no gud. Mi raun nabaut, mi pait, polis i kisim mi tasol mi no kalabus, mi winim kot" ('My name was not good. I walked around, I fought, Police took me but I was not gaoled, I won the court'). There were no witnesses. The next thing he talked about sounds like rape but he could not say directly. He tried to explain it this way, "Pressure long body, yu hamamasim body bilong you - threaten, frighten, then give what you demand. Polis i kisim mi na putim mi long kalabus. Ol kain pasin nogut, mi askim mi yet. Laif nau i no halpim Papa na Mama bilong mi. Laif bifo i no benefitim mi" ('Pressure of body, you make your body happy – threaten, frighten, then give what you demand. Police took me and
put me in gaol. All the bad ways, I ask for them. Life now was not helping my father and mother. Life before did not benefit me either’). Bira admits that he now has better understanding of what is good and what is bad. Being a school captain also helps him realise that he has a responsibility to help his hauslaen (family), teachers and fellow students. He is in his second year of training. He likes mechanics but concentrates on carpentry and hopes to find paid employment when he completes his training.

The fourth is known as Kose. He is 21 years old and left school in Grade 6 in 1989. In 1995 he was caught by the police and gaol for one year and two months but since it was his first offense, the sentence was reduced to 9 months only. His crime was breaking and entering and stealing a radio and other things belonging to a language translation institute. His experience in prison has changed his life. He said, "Hard work in prison, fence all around, cut grass with blunt sarip (grass knife), sit, sleep, work and that's how it is in gaol". He said he had no friends to talk to or laugh and be happy with. Yet in 1996 he was caught again and placed in a town police cell. His mother and family bailed him out. In December of 1996, he was told about the vocational training centre where he now trains. His mother is supportive of him. He says he does not want to return to the past troubles but concentrate on his carpentry training and he hopes to find employment in 1999.

The fifth is named Tim. Tim is a twenty-year-old who left High School in Grade 9 in 1990. After leaving school he tried to find work in town but was unsuccessful so he stayed in his village and did subsistence farming. Then his friends from town got in touch with him and told him that working in the gardens was too much hardwork. He was told to join his friends and learn an easy way of making money. So he did, and they gave him a home-made gun to carry out an operation to make easy money. Tim was very reluctant to say when or exactly what it was that he and his friends did that imprisoned him. But it seems to have been a very serious crime. He said, "Polis kisim mi na olgeta i ranawei. Polis paitim mi olsem pik o dok" ('Police took me but all my friends have run away. Polis beat me like pig or dog’). The police beat him badly and broke his jaw but his friends had left him. He was sentenced to gaol for four years in a gaol far from home. The following year he was transferred to a gaol closer to his village and he served three years, eleven months and seven weeks. When he was released, he realised that, "Ol i girisim mi na mi kisim pen nating" ('I had been deceived and I suffered for nothing’). He said he would not want to encounter another police beating or be imprisoned again. Until 1997, he was back in his village planting corn and potatoes to make money. Tim is in his second year of carpentry training and like the others interviewed before him, Tim hopes to find employment in the new year.
The difficulties that arise from allowing 'rascals' into the centres are obvious but cannot be easily avoided. It is clearly desirable that young men recently released from prison or those trying to leave the rascal gangs should be able to enter an institution that will give them the training to find paid employment. If they do not go to the centres where can they go? But those admitting the students are not in a position to know whether the rascals are ex-rascals or still practising rascals. The centre management has to deal with the mixing of teenage students with little experience of life outside schools and men who are in their mid-twenties and have served several years in prison. Also rascal gangs outside the centres have the power to intimidate those in the centres, and this becomes all the more difficult to control if there are links between some students and the gangs.

5.5.5 Language of Instruction

The official language of instruction and language to be used by students during school hours at the centres is English. Teaching notes and students' written work is also in English. Among the centre rules for each centre is written, "Students must speak English". Yet when students have difficulty understanding, teachers turn to Pidgin or Motu to explain certain concepts. When asked if this is not against the centre rule, Badili's Deputy Manager, Mr Gordon Awantau, said, "Not really", and "No punishment is given for not speaking in English". There has been the same difficulty with both written and spoken English. Mr Aisa, a teacher at Koki, said that students' writing skills are not good. When teaching notes are dictated, students cannot write them down; they have to be written on the chalkboard. This caused further hardships when students attempt written theory tests. For this reason, oral tests become the most appropriate means of examining. Reading also presents problems. The Assistant Librarian, Ms Georgina Wakana, at St Therese found (as expected) that Grade 6 leavers have more difficulty reading then those entering with higher qualifications; but students often enter the centres unable to read basic texts in English. As a result effective instruction must be spoken and most processes demonstrated.

5.6 Summary of Discussion

This chapter completes - in the words of Butler (1995:90) "... a contextual mapping of sites" in which the thirteen vocational centres have been located and hence, the sites of this research project have been established. Thus, the inclusion of the preceding chapter in this summary. Other related issues have also been considered to give the vocational training sector a full picture within the premises of the thesis.
Although the centres were set up for the same purpose - to provide training in trade skills - this is not an adequate explanation of what they do. Only a few centres have clearly defined objectives, such as Limana and St Joseph's. Some transfer what is provided in the Department of Education's handbook (on vocational training) to a particular vocational centre without adapting that for the local site such as at Basenenka. Others like Morata have nothing in writing at all.

It appears that financial accounting presents one of the most difficult areas of operation in the centres. Due to the ad hoc nature of financing (both income and expenditure) it is not certain exactly how much money is required to run a vocational centre for a full school year. The national government school subsidies provide some guarantee of a regular supply of funds but again the experiences of the late 1990s continues to limit the centres to short term objectives. They have great difficulty just to maintain the status quo. Subsidies are calculated according to the number of students per centre therefore some centres have more than others. Again the generosity of politicians or simply vote buying cash may provide funds for certain centres but not to all. For example, Basenenka was given an extra K160,000 for 1998 yet in the same township surroundings Maria Hilf remained at about K18,000. There is no real uniformity in financing, though the minister for education says the subsidy is based on K500 per head, it varies so that some centres get K250 per head while others received K350 per head. Centres are also handicapped because they receive what are apparently irregular part payments of their funds from the government. Most of the time a manager is uncertain how much money will arrive or when it will arrive. The question is what happens to the rest of the money? Who is truly responsible, the Department of Finance and Treasury or the Department of Provincial and Local Level Governments?

The finances within the centres seemed reasonably handled. Most heads of centres do the best possible with their inadequate funds, but there have been some obvious cases of misuse of monies - as at Awande. The guidelines of appropriate expenditure, responsibility and record keeping need to be made clear, and there needs to some regular system of checking centre accounts.

Then there is the curriculum. There may not be a national curriculum and the Curriculum Unit of the Department of Education insists that there are different sets for each locality. But are they really different when mechanics, sewing, typing and computing, welding and so on are the same trades in all the centres involved in teaching these courses? The centres are rather unorganized and uncoordinated yet the very essence of what they do seems to be similar across the nation. There is much needed work to be done to make a national curriculum.
The buildings tell the history of each centre more than anything else. Badili started in an old shipyard, Basenenka was originally an agricultural extension centre, Morata is within a squatter settlement area and St Therese is a traditional girls only set up. Numbers and quality of buildings vary widely from centre to centre. St Therese and Limana, day, Catholic girls only centres would seem to have what is needed to run a vocational training. Except for Malahang Vocational Centre, none is in a condition and with the resources including trained teachers capable of mounting a high school standard curriculum.

The teachers at the centres are some of the hardest working teachers I have come across in the teaching field. Not only do they have to stretch the school resources but they must stretch themselves as well. What skills and knowledge or information they do not posses from teacher training, most of the teachers compensate for by hard work and long hours; their needs for teacher retraining and refresher courses and an up-to-date teacher curriculum is great.

The students' entry ages will continue to rise not only due to increasing numbers of Grade 10 and 12 school leavers but there are those who either leave school and stay home for a while or those who never went to school but still want to find some employable skills to gain wage employment. There is a certain harmony and unity among the students; whether or not anyone is poor or wealthy, young or mature-age, highlands or coastals, the needs for skills training is the same for everyone. Under the circumstances of vocational centre poverty, the students are generally happy and try to make great efforts to be tolerant.

There is a wide diversity of origin of both staff and students. People from other provinces work and study in most centres, and even those students from the home provinces represent towns and distant villages. Some of the vocational centres were established to meet local and immediate needs, but they now meet a broad demand.

Security is a real problem particularly for the female teachers and student population. But I have not come across anyone who has stopped going to training because of security problems. It seems that the female students take great risks to attend the centres. They are truly determined to get some training.

The large numbers of young people who leave school unskilled and unemployed are a real problem. The National Department of Education (NDOE), the Churches and individuals are trying to do something about the situation. Apart from the mainstream vocational centres, the NDOE has tried various other schemes. First the Village Development Scheme was trialled, then the Community Secondary Schools in the 1970s and 1980s. During the 1990s GTZ has been introduced and trialled
as a pilot project. As the GTZ term was extended for another three years and is still continuing, another scheme, the 'Vocational Secondary Schools' (similar to the former Community Secondary Education) have been proposed and partly implemented.

There is less rigidity about certain rules and regulations at the centres so that it is now possible to allow students with criminal records, those who are parents, married and the mature-aged and even perhaps 'first-time' learners to acquire some trade skills through the vocational system.

The language for instruction in the centres is not strictly limited to any one language even though there is a rule that in the centres English must be spoken. There seems no penalty for a student found speaking in their own mother tongue or in a lingua franca.

What is heartening to see now is the international community of donor agencies working in PNG showing an interest in the vocational training sector. Partnerships between the international donors and the various levels of PNG government are obviously desirable.
6.0 Introduction

Chapter six expands the issue of the vocational teacher training expounded in chapters four and five, and expands on this very important component of the vocational training sector. The current staff-on-strength stands at 765, of these, 58 are expatriates. The discussions will cover particularly the programs conducted at the Port Moresby In-Service College, which is now known as PNGEI (Papua New Guinea Education Institute). Two separate awards are noted:

i. The Certificate in Teaching Trade and Agriculture (In-Service)

ii. The Diploma in Teaching Home Economics (Pre-Service)

The former award ceased to be offered in 1998 but to give a fuller historical perspective on the kind of programs geared towards teacher education at the vocational level, this award will be considered up to and including 1997. The latter award continues. And, of course, this is the qualification held by many of the women at present teaching in the centres.

6.1 Background

In the introductory review in Chapter two, it was noted that when the junior technical and community technical schools were set up after the Second World War, the teachers were predominantly expatriates. Only a few were trained teachers and the majority were either tradesman or farmers. Before self-government was granted to Papua New Guinea in 1973 and the eventual proclamation of independence in September 1975, one of the major areas of preparation for nationhood was teacher education and training, and not least was teachers for vocational training.

The first vocational teacher-training course of only six months was mounted in 1971 for forty teachers at the then Port Moresby Teachers' College (Shaw 1987). The literature is not clear if these forty trainees were all nationals but Shaw (1987:164) noted that it was in the 1970's that the increasing political pressure for localization of vocational teacher training “... became increasingly
clear". But courses for vocational instructors\textsuperscript{14} were not established at the Port Moresby Teachers' College until the late 1970s.

The monograph on National Education Strategy (Institute of Applied Social and Economic Research 1979) noted that the then Goroka Teachers' College also provided a course for vocational centre instructors and managers. This was a one-year course for the Diploma in Teaching Agriculture. Although not recorded, the same course was also conducted for home economics instructors. Both these courses ceased to operate in the 1980s for varied reasons from financial constraints to changes in the programs offered at the then Goroka Teachers' College. The 1980s saw Goroka develop advanced diploma courses, up-grading the two-year diploma to three years and the prospect of Goroka becoming a university offering degree program in teacher education were floated. Therefore, vocational teacher education was withdrawn to go elsewhere.

6.2 The Certificate in Teaching Trade and Agriculture

Before the Teacher Education Division of the Department of Education took control of the Certificate in Teaching Trade and Agriculture, a single individual, Mr Bob Bailey established it in the PMTC, in 1976. In addition to the course being set up specifically for vocational instructors, it also became a service course for the Non-Formal Education Division (Shaw 1987). The course was conducted over one year as pre-service training for qualified tradesman who could then become instructors in any vocational centre throughout PNG. The main objectives of the course were to develop an interest and commitment to teaching ... the trainees and to equip them to:

- teach their own trade skills at an appropriate level of technology
- teach the basic skills of other trades including mechanics, carpentry, plumbing and welding
- teach and implement practical agricultural skills at a vocational centre level
- extend technical and farming skills to village people
- keep accurate records and be accountable

It was hoped that the course would motivate the trainees to continue to learn and acquire additional skills at the end of the course (Shaw 1987:166).

\textsuperscript{14} 'Instructors' — to distinguish between the teachers for primary and secondary schools from the vocational centres, the term 'instructors' became widely used when referring to vocational teachers while the term 'staff' is used as a generic term, including cooks and clerks.
The course was made up of several modules, which were taught either in a term or two or for the whole year. The normal school calendar had two semesters and four terms. The following table 6.1 indicates courses taught and time allocations. All the modules of the course were considered equally important for the purposes of student assessment but time allocation varied considerably per term.

### Table 6.1 Course Outline – Certificate in Teaching Trade and Agriculture

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Hours Per Week</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Skills (I, II, III &amp; IV)</td>
<td>3</td>
<td>Semester I &amp; II</td>
</tr>
<tr>
<td>English Skills (I &amp; II)</td>
<td>4</td>
<td>Terms 2 &amp; 3</td>
</tr>
<tr>
<td>Mathematics Skills (I &amp; II)</td>
<td>4</td>
<td>Terms 3 &amp; 4</td>
</tr>
<tr>
<td>Agriculture (I, II, III &amp; IV)</td>
<td>6</td>
<td>Semester I &amp; II</td>
</tr>
<tr>
<td>Trade Skills (I, II, III &amp; IV)</td>
<td>4</td>
<td>Semester I &amp; II</td>
</tr>
<tr>
<td>Course Planning and Writing (I &amp; II)</td>
<td>4</td>
<td>Terms 1 &amp; 2</td>
</tr>
<tr>
<td>Non-Formal Education (I &amp; II)</td>
<td>3</td>
<td>Terms 3 &amp; 4</td>
</tr>
<tr>
<td>Business Principles</td>
<td>4</td>
<td>Term 3</td>
</tr>
<tr>
<td>Aids and Materials</td>
<td>4</td>
<td>Term 2</td>
</tr>
<tr>
<td>Extension Education (I &amp; II)</td>
<td>4</td>
<td>Terms 3 &amp; 4</td>
</tr>
<tr>
<td>Field Experience</td>
<td>Three-week blocks</td>
<td>Terms 2,3 &amp; 4</td>
</tr>
</tbody>
</table>

**Source:** Shaw, Greg (1987:168-169).

When I spoke to the current course co-ordinator, Mr Kumi Kispe, in a telephone interview in November 1998, modules and strands were emphasized in three specific areas:

1. **Instructional Skills Strand**
   - teaching methods – pedagogics
   - educational psychology (early childhood learning)
   - assessment/evaluation
   - course planning and programming
   - teaching aids/instructional resources
   - practicum (1st in the city centres and 2nd in rural centres)
   - extension education

2. **Trade Skills Strand**

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15 'Mr Kumi Kispe' had agreed that his name is mentioned in this text.
• motor mechanics
• carpentry
• welding
• sheet-metal fabrication
• panel beating and spray painting
• plumbing
• basic secretarial
• introduction to computing
• agriculture (main core – animal and crops)

3. Additional:

• mathematics
• English
• book keeping
• business principles
• religious studies
• special education – visit to centre for the handicapped for familiarity

Mr Kispe continues the training emphasis on producing a ‘Jack of all trades’. This was what Shaw (1987: 168), one of the former co-ordinators of the course, described as promoting “… the concept of a generalist tradesman”. The concept is debatable, even perhaps controversial, for the tradesmen are specialists in their own trades and to undo a specialized skill and add new skills in one year, is quite a task; not only for the trainee teacher but for the trainers too.

Perhaps it is useful here to refer to Chapters four and five where there is no evidence of a single generalist instructor in any of the centres that I have visited. In fact when there was no instructor for any of the subjects, the course was not taught. For example, when there was no agriculture teacher at the Morata centre, agriculture was not taught until an agriculture teacher was found. This is inspite of the fact that each of the trainee instructors was given a practical basic background to agriculture as part of their instructor training. The dilemma of choosing between specialist and generalist instructor training occurs as a result of two particular issues:

i. the lack of resources at training college so that individual trade lecturers cannot be appointed to meet any increase in the number of trainees, and
ii. the many varied needs of the centres and communities where the trainees are expected to serve on graduation

How much commitment and resourcefulness the students may devote to becoming instructors in the vocational centres are observed in interesting ways. Within the year-long training, students are more or less scrutinized. Though it may not be obvious, the students are given duties and projects to perform over and beyond the normal class hours. By way of an example, formal contact time per week takes up to between 25 and 26 hours. Apart from time spent on assignments, exercises and projects, students are expected to perform additional duties such as maintenance, agriculture and work in other college projects. Sometimes these duties may fall on weekends or during mid-term breaks. If the student carries out the tasks and does them well, sacrificing leisure hours, weekends and mid-term breaks, it is considered commitment to the job. According to Shaw (1987), instructors in the centres are expected to do similar tasks without any additional monetary rewards.

Teaching facilities including classrooms, workshop and block of land were provided by the Port Moresby In-Service College. A classroom and workshop area has been allocated as a 'homeroom'. This same room was furnished with desks and chairs for lectures and discussions on one side, and on the other side, which was the rear end of the room, was set up with some woodworking benches and other work areas for practical activities. For the teaching of agriculture, a small block of land was provided where each student was given a plot to practice agriculture. There was also a chicken house built on the same block for teaching theory and practical aspects of raising poultry.

Basic and limited hand tools and equipment were provided for mechanics, agriculture and carpentry. In recent years, the college has provided 15 tool kits as there were only 15 students in class each year. There was also a small electrical welder (salvaged from the dump and repaired), a small rotator, an oxyacetylene set and an electric drill.

Some of the character qualities that the course tries to instill in the trainee instructors are creativity, inventiveness and resourcefulness - this means that much of the material supplied for the courses has been discarded by others: scraps and unwanted material such as steel, off-cut timber and anything else found in the rubbish dumps of the city. I have witnessed in the centres such as Koki that indeed the instructors have taken to heart the need to be resourceful and have used material for instruction from the dump pits.

The lecturers and students also have access to the audio-visual centre, library, printing, transport and certain specialist lecture rooms. College lecturers also assist in teaching a variety of subjects in...
the course. As well, college ancillary and operational support staff help meet the requirements of boarders. Other assistance has been provided in the form of utilities such as electricity, water and telephones. Students were permitted to use the computers although computing was not part of the formal content of the course.

By 1987, the course was receiving very limited funds of up to K25 per term per student (Shaw 1987). Between 1992 and 1998, there has been somewhat an improved funding. The financing of this course was set around K50,000 per annum. Of this total, K10,000 was used for the administration cost of the course including K2,500 for consumable items each term. The remaining K40,000 is spent on the salaries of the trainees who receive K215 per fortnight; K60 goes back into the college in mess and lodging fees, leaving the trainee with K155 to spend as they wish. However, because many of them already have families, the net income goes to help provide for the subsistence of their families.

The course is co-ordinated by a senior lecturer, specifically appointed to oversee the course. The position of the co-ordinator has been localized since 1992. Mr Kumi Kispe, a graduate in agriculture from the PNG University of Technology and with a Diploma in Teaching (PVTCS), became the co-ordinator who was also given the task to begin to localize.

This course appears more or less like an appendage at the college- not quite belonging there. The only lecturer for the course was the co-ordinator himself. It is for this reason, that other lecturers from the college who were responsible for the primary school teachers in-service program, must assist in teaching the vocational instructors course.

In August every year, the college places advertisements in the Post Courier and sends pamphlets to schools throughout the country, calling for applications for both courses, the Certificate in Trade and Agriculture and the Diploma in Teaching Home Economics. The response has always been that more applications than placed available have been received - the college often receives between 120 to 15 applications. The course accepts only 15, so between 105 and 135 were usually rejected. When asked why there was such an interest in teaching in vocational schools, one of the reasons Mr Kispe simply said was that demand is high. That is not to say that everyone who applied was genuinely interested. Many were looking for an alternative. Even if working in private industry and receiving a good income of say between K500 and K700 per fortnight, "... the work is hell, the tradesman are worked like machines", said Mr Kispe. He went on to explain that teaching is more relaxing even if the pay is not as good, living conditions are poor, and the centres are under resourced.

The pre-requisite for student admission is a minimum secondary education to Grade 10, and the applicant must be a qualified tradesman with a minimum of three years of work experience in
industry. The selection procedure seems very simple – the co-ordinator receives the applications and makes a short list according to the in-service college guidelines, then the principal of the college endorses the list and the successful candidates are informed.

The ages of successful applicants range between 30 and 35 years of age. The students are predominantly male with one or two females. The females were offered a form of secretarial instructor training so they can teach computing/typing in the centres. What sort of certificate the women students received was not clearly stated, as the program has not been specifically designed for secretarial instructors.

As part of the training program, students do teaching experience in various vocational centres. The first teaching practice takes place around the city vocational centres in about second term. The second teaching practice round takes place in the rural areas about third term. The rural centres chosen were interestingly outside the Central Province such as Mt Hagen, Popondetta, Madang and Rabaul, increasing travel expenses. Nevertheless, the Staff Development Unit took care of this expenses and sent out the trainees for about K2,500 per annum (Shaw1987). According to the current co-ordinator, about 105 students have graduated from the course. It seems that the 1990s were better years than the 1980s when only about 65 students graduated in the same period (Shaw 1987). Due to the loss of the services of some of the instructor graduates, it is estimated that of those who graduated between 1980 and 1997, approximately 100 would still be in service. Even though teaching may be more relaxing as Mr Kispe noted, there are instructors who are ambitious and are seeking more than just a few basic comforts. These are the ones who are often lost back to private enterprise (The Institute of Applied Social and Economic Research 1979).

6.3 The Diploma in Teaching Home Economics

Prior to 1991, there was a Certificate in Teaching Home Economics course at the Port Moresby In-Service College. The Diploma in Teaching Home Economics was then introduced in 1991 to replace the former with a view to upgrading and improving the course. Fifteen students were enrolled in the course but only thirteen graduated in December 1993. The college has set down the purpose and specific objectives.

The purpose

The purpose of the three-year diploma program is to offer a wide range of learning opportunities which better prepares the instructor to cope with the challenges and the
diverse and demanding tasks of working in the vocational centres (Port Moresby In-Service College n/d).

Specific Objectives

• providing vocational skills and competencies which will assist the trainees to better manage their lives and be more productive in their communities
• encouraging trainees to set their sights on being useful members of their society irrespective of their employment opportunities
• providing a learning environment were the trainees can develop to a maximum potential
• to integrate the centre’s activities and its learning strategies with local relevance, parental aspirations and community development
• establishing, preserving and improving standards of education in vocational centres (Port Moresby In-Service College n/d)

The entry requirements and assessments are:

Entry Requirements

Minimum Grade 10 - credit passes in English and maths, upper passes in science and social science and a rank within the first 30% in home economics in the high school assessment.

Assessments

Assessment guidelines are referred to the college’s general policies and procedures with an emphasis that for a student to receive the award of the Diploma in Teaching Home Economics, the student must receive satisfactory assessment in:

• academic studies
• practicum and
• attitude.

The course is divided into what the college has called:

Strands
• language development
• business mathematics and basic science studies
• moral and social development
• community development
• vocational skills
• professional development

However, when the acting co-ordinator was interviewed in November 1998, she was rather critical that when the Diploma was introduced in 1991, only the name changed. The structure and the sequence of the subjects taught remained unchanged. As there were three lecturers, they have come to an agreement to review the course by allocating subject areas to each. For example, the acting coordinator examined the food and nutrition while the other lecturer reviewed textile design. The interesting thing was that in the process of reviewing the course, more subjects were being added such as:

• community development studies
• guidance and counselling
• book keeping
• principles of business management
• vocational maths 1 & 2
• communication skills
• library skills
• expressive arts
• physical education
• home management
• professional studies
• agriculture
• assessment and evaluation
• vocational centre procedures
• teaching aids/materials
• catering
• leadership
The entry requirement for this course is Grade 12 minimum qualification. About 146 applied in 1997, but only 20 secured places and 126 were rejected. It has been estimated that since 1991, between 100 and 140 have graduated.

When asked about the budget for this course, the acting co-ordinator replied, “I don’t know”. Even though government sponsors the students, the course co-ordinator has no clue as to how much her department has to spend. The procedure is to make a list and costing not exceeding K75 then take it to the registrar to check before a written cheque is given for the shopping. These procedures meant that the women involved in this program would have no experience of actually budgeting for their programs, and on how to control expenditures. Moreover, this means that they do not acquire skills that could be utilized as part of the training to benefit the centres’ financial management.

Facilities, including rooms for lectures, cooking and sewing, are very limited. At present only two sewing machines are working and just one electric and two gas stoves are able to be used, but they are without grills.

Teaching practice is conducted under the same arrangements as for the Certificate in Teaching Trades and Agriculture.

6.4 Diploma of Vocational Education and Training (DoVET)

This program was proposed in 1998 and was due to commence in early 1999. It is an in-service program with the following entry requirements, pre-requisites and assessment strategy:

**Entry Requirements**

- currently serving vocational teachers preferably those who have successfully completed a minimum of Grade 10 school education and who have a qualified trade background

- applicants should have a mature and responsible attitude with a proven satisfactory performance and behaviour consistent with the role of providing quality vocational education and training to students

- A gender balance should be achieved
One of the interesting features of the admission requirements is a consideration of the recognition of prior learning (RPL) so those students may be granted credits towards their award. For example, the course will recognize awards offered by the National Apprenticeship and Trade Testing Board, Technical Colleges, Agricultural Training Colleges, Fisheries College, Timber Industry Training College, Small Business Development Corporation and Maritime Training College.

**Assessment Strategy**

- No grades of Distinction or Credits’ will be awarded. Instead DoVET assessment will be competency-based.
- Final outcomes will be assessed as either: C = competent or NYC = not yet competent.

The structure and the actual location of an institute where this program would be offered were quite unclear in 1998. For example, the DoVET Specification paper prepared in March 1998, says:

> activities will include course work and industrial attachment. Course work may include self-training in the district or provincial centre. Depending on resources available in the local community there may be opportunities to form cluster groups. The cluster will serve as a basic reference and support group for peer evaluation, mutual support and learning. Clusters will be the main means for ensuring that vocational school teachers receive the help they need to achieve maximum success (Department of Education 1998:1).

By year 2000, the plans have materialized and the course is currently conducted at the PNGEI with the industry attachment component to be undertaken with selected industries.

**The subjects in the course include**

- foundation curriculum unit
- agriculture
- tourism and hospitality
- mechanics
- building and construction
- professional development unit
- adult matriculation
In 1998, I had thought that the DoVET course would replace the two courses at the Port Moresby In-Service College. Instead, the Diploma in Teaching Home Economics continued but the Certificate in Teaching Trades and Agriculture was made redundant. An update on the material on DoVET showed that the Department of Education has kept more or less to its plans as proposed in 1998. Apart from the on-campus and industrial attachment components, the DoVET is moving towards abolishing the home economics course and establishing a tourism and hospitality course instead.

While the PNGEI and the respective industries administer the DoVET program, the controlling and management mechanisms, including its financing, remain with the Department of Education head office in Port Moresby. However, the external component has been planned to be sponsored by a donor agency – namely the European Union under phase II of the Education Project.

The DoVET appears very promising and some vocational teachers have already been attending the course. My observation is that the Department of Education may have to consider releasing the DoVET to an institution to administer the program. The DOE ought to concentrate on managing, inspecting and maintaining the vocational centres throughout the country. At the same time, alternate funding ought to be sought to be able to maintain the total cost after the European Union completes its cycle of sponsorship.

6.5 Summary of Discussion

The vocational instructors training programs initiated at the Port Moresby In-Service College, now PNGEI, and those previously administered at the then Goroka Teachers College are certainly fulfilling a national need that no other more appropriate institute could have provided. The varied conditions and demands of the centres and communities and the under-resourced instructor training facilities, must put extra demands and hardships in the path of good quality instructors. But courses taught have provided basic qualifications necessary to give instruction at the vocational centres throughout the country. At present, there are no programs that may meet individual instructor needs other than the DoVET. Certainly, the fact that so many apply and so many are turned away is indicative of a strong desire by many to undertake the courses. It is hoped that DoVET is properly established, so that it will play a leading role in enhancing and improving the lot for vocational centre instructors. There are questions to be asked about the way students are selected: it appears that these could be more exacting and the criteria set out more clearly. Funding will probably remain a problem, but it would seem important to give instructors and students practices in managing funds in efficient and accountable ways.
Chapter Seven

Consolidating the Findings and Discussions

7.0 Introduction

This chapter analysis, discusses and brings together the findings of the thesis. The historical background information is dealt with first, then the case studies, leading to a summary of the findings.

7.1 Background

To look at vocational training in Papua New Guinea (PNG) is to raise basic and recurring questions in PNG education: what opportunities can be provided for those many students who are forced out or who drop out of the normal formal education sequence? What is the appropriate education for those who will live in rural villages? What can be done to stop all forms of education being seen as a means to leave the village? What are the skills that PNG needs in the workforce to serve the nation's economic goals and reduce unemployment? What is the best way to provide equal opportunities for city and rural, males and females?

7.1.1 The Global View

As vocational technical education and training evolved from the eighteenth to the twentieth centuries, it has gained a high profile in the world, particularly in Western industrialized countries and in progressive Asian economies. While an apprenticeship system is maintained for certain specialized trades and crafts, the countries of Europe, North America and Asia have expanded vocational technical training to include the semi-skilled to the para-professional, and also to include professional training in a wide range of occupational skills. A comparison of national education systems and vocational technical programs, in countries of the regions mentioned, reveals considerable differences. However, several outstanding features are common throughout. These include, for example:

- Practical or industry based training (on-the-job training, acquiring practical skills in industry).
- A skills or competency based curriculum.
- Training for specific employment in industry (relevance of curricula).
The industrialized governments' major policy has been to link vocational technical education and training to industry. This requires training providers to produce curricula that are oriented towards practical skills in current demand and yet do not neglect general education entirely. Trying to find the right balance between practical vocational technical and general education has been a contentious issue, as seen in Chapter 2 and section 2.2. There are also problems that are common to many of the countries mentioned in Chapter 2 but one particular problem that really stands out has been 'financing'. Governments throughout the various regions have cut budgets for higher education and because vocational technical training is undertaken as post-secondary, it suffers the most due to the nature of its programs. Because of the equipment required and the ratio of students to staff is low, vocational education is often expensive. Also vocational training is seen as less important than university education or higher technical education and has fewer advocates in positions of political and bureaucratic importance.

7.1.2 The South Pacific Region

The literature on vocational training indicates that the governments of the South Pacific Island states have no collective voice, let alone policy on vocational education and training. During the 1980s, vocational training was placed under non-formal education (NFE). Unlike the industrialized European, North Americas and Asian countries, the Pacific countries including PNG, have had Grade 6 students attending vocational centres until recent years. For example, in the United States of America, vocational education is known as post-secondary, while in the United Kingdom and Australia it is considered part of a technical and further training (TAFE). In Papua New Guinea students with just six years of primary education in a foreign language will inevitably suffer problems of basic literacy and numeracy.

In PNG the Churches have always been involved in vocational training but placing vocational training in the non-formal sector has allowed more flexibility for non-government organizations (NGOs) to participate more actively. The problems of structure, co-ordination and the relationship of vocational education and training to national development remain unresolved. But the non-formal sector may suffer most when funds are cut. Non-formal sometimes means non-essential, which may place the sector in a position of passivity.

7.1.3 Papua New Guinea (PNG)

Training in the PNG traditional setting was practical and functional; it was to equip the child to fit into adult society. However, most of the traditional skills have served their time and have been made

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12 The lack of common policy and voice on technical education did not mean that what happened in one South Pacific Territory had no influence on another. Experiments, policy debates, successes and failures on one island influenced what was happening on others, particularly those administered by English speaking governments.
redundant for the purposes of this other world, the modern cash economy dependent on advancing science and technology. Where once the colonial administrators struggled to train and civilize the native and shift his/her whole mental set towards a new horizon of work and indeed that of living; today the PNG citizen no longer runs away from school but floods the vocational centres until there is no more room and until school fees run dry. The reason is simply the demands of the ‘cash life’, that at least at the end of each day, there is adequate foot on the table. Vocational training has become eagerly sought after as a route to satisfying the demands of the case economy.

Vocational training was an import of both German and Australian (and British) colonial rule, first into German New Guinea and later into British New Guinea. The missions provided the initial vocational technical training as practical training, often for the benefit of mission expansion in both German New Guinea and Papua. The missions certainly needed their own skilled builders and tradesmen, but it is also true that some missionaries, such as Charles Abel, saw that giving the villagers skills would fit them into a new world at the level above that of low paid plantation and mine labourers.

The Governor of German New Guinea, Dr Albert Hahl, provided subsidies to the missions especially to teach the German language to the indigenous people before establishing the government school on Namanula hill in 1907 and he also introduced vocational technical training with reasonable success (Sack and Clark 1979b).

Similarly, in Papua, Sir Hubert Murray initially provided subsidies to the missions for secular education and later provided subsidies, particularly to Kwato, the London Missionary Society (LMS) and the Methodist Church on the condition that they gave instruction in technical and agricultural training. It was as early as 1882 when the LMS began training pastor-teachers also in domestic arts, and at Kwato, vocational technical training was introduced as an important part of training the indigenous people (Wetherell 1996, Smith 1987, Smith 1975).

Even though the Second World War disrupted progress in 1942, the Australian New Guinea Administrative Unit (ANGAU) "was able to provide some degree of continuity in native administration during the period of greatest crisis ..." (Legge 1956:184) in areas where the Japanese military was not in control. In fact, ANGAU, it was reported, did remarkably well in selected fields and achieved a great deal more than the administration in peacetime. For example, Stanner (1953:82) described the achievements as:
The provision of hospitals and equipment, the treatment of outpatients, the increase in medical patrols, the increase in medical staff and the training of medical orderlies. ... the cost of medical services was £300,000. Nearly 250,000 natives were admitted to ANGAU hospitals, over 300,000 outpatients were treated, and another 100,000 by 1,000 medical patrols ...

Many of those medical orderlies were Papua New Guineans, and they represented a considerable expansion of the prewar services of those two territories.

At the same time, ANGAU established an education centre at Sogeri and began experiments in indigenous agriculture in the Mekeo and Sangara Districts. In July 1945, the Minister for External Territories, Mr E. J. Ward, announced Australian's comprehensive policy for the development of the Territories of Papua and New Guinea. Yet by Independence in 1975, and after 30 years since the announcement of the policy, universal literacy and primary education for all still had not been achieved. Vocational technical education and training more or less became an appendage in the education system and was reserved for primary school dropouts and failures (as they were called). If vocational technical training was introduced in the late nineteenth and early twentieth centuries, and ANGAU could accomplish so much in two to three years among the same people, then there must be an explanation as to why vocational training has achieved so little. The key explanation seems to lie within the context of the policy on 'Gradual Development' and four related issues.

7.1.4 Gradual Development

First of all, the native in his own environment is secure in his knowledge, skills and abilities. For example, he can build a house, make a canoe, trade with his neighbour or defend his tribal territory. At the time of first contact with the whiteman, the native shifts in his mental position from his own and known environment close to that of the whiteman. In doing so, he becomes 'ignorant' or 'very primitive' in the ways of the whiteman (Nadile 1997). In this circumstance, the native needs to learn new knowledge, skills and develop new abilities and capabilities in order to operate in the new Western environment. The reverse could have happened in a similar way but the world was viewed only from one side, the Western, European perspective. Before 1942 few Papua New Guineans had skills and knowledge that made them confident in the White man's physical and mental environment. One rare exception was when a few selected Papuans and New Guineans were given command of coastal boats. Where those men knew how to repair diesel engines, knew the coasts, currents and winds, and knew the capacities of their ship, then they were in a position to over-rule the decisions of the mastas in the mastas' world.

185
The native however met two kinds of Europeans. One group opposed giving Papua New Guineans any chance to advance; but another group was genuinely interested and sympathized with the natives' 'simplicity', and were sympathetic to the welfare of the native. The policy on gradual development was beneficial in that the indigenous people were given time to consider and make adaptations not only to the social, economic and political changes, but more so to the mental processes in order to reach the point of true comprehension. Of course, the time needed would not be the same for everyone, some needing more or less than others depending on the circumstances and resources. And for every new situation with fresh information, the same mental processes had to take place. So that before people could really change in their understanding that is reflected in their behaviour and attitude, they needed time to think about things, really think them through and are able to consolidate the ideas in beneficial ways. And of course, this applies now as it did at the time of early European contact. However, due to the mobility of people and all forms of media exposure, the rate of the speed of understanding, knowing and making decisions may be quicker and perhaps more efficient.

Box Story 7.1: Beta has Finally Arrived

Beta's family owns a lot of land so they migrated a fair bit when she was growing up. But she remembered Kwalausi village well because that was where she grew to form concrete ideas about the world around her. She learned from childhood not to paddle a canoe too far out to sea especially to the end of the sea horizon. If she did, her canoe would fall over the edge of the sea and she would be no more. It has been almost forty years since she first went to school and ever since then she became fascinated by the world around her. Sheer curiosity inspired her to take the risks she has taken and travel abroad and go to school. Her family thought that she was strong and should have been a boy because only boys could travel far from home. But they do not know the risks, the troubles and sometimes the traumatic experiences she has had, her fears and the loneliness she had encountered and endured.

About ten years ago she travelled to Canada from Colorado, USA by bus. Much to her surprise the bus arrived at the border between the USA and Canada without going uphill anywhere all along the road. The bus continued along the flat plains and eventually arrived at the University of Alberta, in Edmonton. She was too embarrassed to tell anyone but she learned then that the world was really flat. According to the map of Canada and USA, she thought the bus was going to climb up from the USA to Canada.

She now understands many things about this other world, however at the same time, certain things she thought she knew but in fact she actually did not know that she 'did not know'. The 1990s have been significant for her personally, especially 1998. Something happened ... and she was led to reconcile her self to her past then come back to the present in order to face the future. It was here that she acknowledges her primitiveness, ignorance and kanakanness. After this something else happened ... the eyes of her understanding kind of opened up. She sees the same things as before but differently and with a depth of understanding as never before. Whatever this may mean, and learning will continue, only one thing she is sure about and that, 'she has finally arrived'.

In the second example:
Box Story 7.2: Claude Champion wrote:

In the Samberigi valley the natives had never seen a European before. They were so amazed at the colour of our skins. When they came down out of their stockade they licked their fingers and rubbed them against our white skins, and looked at their fingers, thinking, well, what's that? They looked at the police; the same colour as they were. They just couldn't make it out ... (Nelson 1982:133).

To illustrate the view that the policy on gradual development was beneficial, two brief stories are presented. The first one is in the Box Story 7.1 on 'Beta has finally arrived'. This is a true story presented under a fictitious name. The second in Box Story 7.2 is a piece from 'First Contact' in Nelson's "Taim Bilong Masta".

Jean Piaget's ideas about cognitive theories and development might help explain what could have gone on in that native mind in the first contact with Europeans. Piaget believed that before the mind reaches a state of equilibrium, that is a state of mental balance, "each person continually attempts to make sense of conflicting experiences and perceptions" (Berger 1988:48). This mental equilibrium is reached through mental concepts that strike a harmony between people's ideas and experiences.

Piaget also suggested, according to Berger (1988), that periods of disequilibrium can be disquieting to people when accepted beliefs or ideas no longer hold true, though they may have periods of mental stimulus and growth as well. When disequilibrium occurs, people want to know, to find out the truth and comprehend. This is the point where the natives of the New Guinea Highlands in their first contact with the Europeans licked their fingers and rubbed them against the white skin but alas, they could not understand at that point of contact. Piaget elaborated on 'active search' for truth as the 'essence of intelligence' which consisted of two interrelated processes:

... organization and adaptation. People organize their thoughts so that they make sense, separating the more important thoughts from the less important ones, as well as establishing links between one idea and another (Berger 1988:49).

In the process of learning about the presence of the Europeans, the New Guineans, it seems, tried to mentally organize the white and the black people into clusters according to what they thought could be real people and/or spirits. Piaget further suggested the following, as Berger (1988:49-50) describes:
At the same time, people adapt their thinking to include new ideas as new experiences provide additional information. This adaptation occurs in two ways, through assimilation and accommodation. In the process of assimilation, information is simply added to the cognitive organization already there. In the process of accommodation, the intellectual organization has to adjust to the new idea.

Therefore, in seeing the Europeans, the natives tried to extend their understanding of people by discovering the new kinds of people to add to the existing clusters (assimilation). At the same time, the natives probably rearranged the old or created new clusters of people through meeting the Europeans who looked like people, like the natives themselves (accommodation). They had believed that there were only people of one colour and that the range of cultures was limited to what they themselves had or whatever they had seen in neighbouring valleys but now they had to accept that the varieties of peoples were much wider and the possibilities of what people could do were much greater. These were extraordinary ideas - providing opportunities but undermining the old.

Secondly, instances of white prejudice have been cited as one of the reasons for PNG not progressing in general and for the continuing lack of technical and trade skills for almost a century. Examples can be drawn to show that this was sometimes true. When William Strong tried to train Papuan Medical Assistants in the 1930s (Nelson 1970), there was indeed a strong degree of prejudice against the progress of the indigenous people in education and particularly technical training. In 1929 the Citizen's Association in Rabaul successfully prevented seven indigenous people from travelling to Australia for education (Jinks, Biskup and Nelson 1973). But Johnson (1970:13), a former Director of Education observed that:

The whole period of the 1960s has been a period of total social revolution, a revolutionary change in attitudes both of Papuans and New Guineans and of Australians, and I think this is the dynamic factor in educational development as well as in all other developments here. There has been a complete and total change in the way people look at themselves and in the way people look at their Australian neighbours if they are Papua and New Guineans, or the way they look at Papuans and New Guineans if they are Australians. It has been a most exciting and encouraging change.

Even though Johnson did not mention the words 'prejudice' or 'racism' directly, his observation implied the change in the prejudicial and racist attitudes that may have led to a more tolerant acceptance of the different racial groups. So from the 1960s onwards people seem to have moved
on from where they were to a better understanding of what Hasluck has also referred to as 'race relationships' and of the capacities of different races.

Thirdly, there has always been a fundamental question about resources. Both German New Guinea and Papua had real difficulties with shortages of finances to actually build and administer schools. There were significant shortages because the Territories had almost no revenue to start with. Those shortages continued in the 1920s and 1930s. From 1942 to 1945 funds in unprecedented amounts were available but for limited tasks that served the needs of war. In spite of more generous funding in postwar, vocational education has always been poor. But considering the natural resources and traditional technologies that abound, the fundamental problem may have been in importing technology and resources. Finally, until the 1950s the Territories' economies were small, employment opportunities were limited, and there were racial implications regarding the wages and salaries for the educated and skilled. Employers were unable or not prepared to pay wages for any highly educated native. This was one reason why Sir Hubert Murray, in the prewar, had been concerned about educating the indigenous people. The reality was that there were not enough jobs for every educated person, a fact that is still true today.

Contrary to the natural process of change and development anticipated through the policy on gradual development, PNG encountered tidal waves of change with magnitudes far beyond expectations. The political and social changes accompanied that have the change from subsistence to the cash economy have moved the country forward to international engagement in just over a century in the term since the Whiteman first walked inland.

However, the high speed of change is like the floods that pass quickly in a wet season and leave behind a lot of debris and much damage, yet may also leave behind a refreshed atmosphere, new soils and moisture for the cultivation of seeds for new growth. Both gradual and rapid change and development have good and bad effects. As illustrated in Box Story 7.1, Beta slowly came to know this other world better than she originally knew it. But only with the help of people, information and financial resources was she able to do this. For vocational training, gradual development was far too slow and rapid change was too fast for the limited resources. As a result, vocational training has been left behind other sectors of education and training. Vocational training sector became the valley of the less fortunate. Those without resources, others who are slow and late developers and still others who have simply missed all other chances to be educated are flooding the gates of the centres in recent years.
Indeed the issue of vocational training has been revived in the 1990s so that it has caught the attention of foreign aid donors to PNG – and they now provide limited funds for the various projects in this very sector. But are the funds really channelled so that they will improve the infrastructure and courses of the centres over the long term?

Still, mixed messages are received on the actual status of the vocational training sector – I am left with the discrepancy between what the government says, and what actually goes on in the vocational centres. Some of the consequences of that difference between policy and reality are apparent in the vocational centres themselves. This is clearly illustrated in the case studies and later discussion.

### 7.2 The Case Studies

The vocational training centres studied have been representative of all centres in PNG. They represent the urban and rural, coastal and the highlands, co-educational and same-gender, Church agencies and the Government formal establishments. None of these institutions are privately owned and managed by business enterprises excepting those run by the Churches, but those still come under one national system overseen by the National Department of Education.

The findings of the case studies are generally presented in the following order:

- the staff
- teacher training
- infrastructure and buildings
- the curriculum
- finance and resources
- the students
- employment
- security
- other schemes and issues
- policy intentions
- breaking the vicious cycle of unemployment

#### 7.2.1 The Teachers
Table 7.1: Number of Vocational Teachers

<table>
<thead>
<tr>
<th>Vocational Centres</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>No. Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badili</td>
<td>18</td>
<td>4</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>Koki</td>
<td>15</td>
<td>5</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>Morata</td>
<td>12</td>
<td>3</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Limana</td>
<td>0</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>St Therese</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Basanengka</td>
<td>6</td>
<td>4</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Kamaliki</td>
<td>9</td>
<td>3</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Maria Hilf</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>St Joseph's</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Malahang</td>
<td>12</td>
<td>5</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>Awande</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Kassam</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Komperi</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>83</strong></td>
<td><strong>49</strong></td>
<td><strong>132</strong></td>
<td><strong>52</strong></td>
</tr>
</tbody>
</table>

Table 7.1 presents the total number of teachers and those who were interviewed in all the vocational centres visited and studied. There were 132 teachers, 49 being female in the 13 centres. Fifty-two teachers were interviewed. As noted in Chapter five, no one was interviewed in Awande. Female teachers remain under-represented in the vocational training sector as in other sectors of the education system. Where the number is high as in Limana and St Therese, then these are female only centres. The figures seem to show that there is no systematic way of appointing the number of teachers to each vocational centre, neither is there a benchmark to appoint people of a certain quality of characters to become vocational instructors. Moreover, it does not seem to matter where the school is located, be it in the rural or urban or semi-urban centres, even in a squatter settlement area, the manner of teacher distribution is the same right across the board. However, the data appears to indicate that there is tendency for more teachers to be in an urban centre or near enough to an urban area. There is also an indication that more of the teaching opportunities are in the urban centres. Take, for example, Badili and Koki, with the total numbers of 22 and 20 respectively, are both Port Moresby City based training centres, and Malahang with 17 teachers is a Lae City based centre. Apart from other factors, Awande a rural based centre shows the opposite with only one teacher. In Chapter three it is said that formally the staff appointments are the responsibility of the Headquarters in Port Moresby but this does not seem to be reflected in how some of the teachers have been selected. Awande clearly illustrate this trait.

The number of students does not seem to be the dominant factor in deciding the number of teachers. For example, Malahang has 300 students with 17 teachers while Morata has 304 with only 15 teachers. Further, Basanengka with 188 students has 10 teachers while Kamaliki has 12 teachers for
165 students. The three female only centres (Limana, St Therese and Maria Hilf) had 9, 7 and 5 teachers respectively. Maria Hilf has the least number of teachers yet has the same number of students as St Therese with 7 teachers.

The differences may be small in statistical terms, but these differences are an important reflection of the fragmentation of decisions and decision-making for the vocational training centres. Furthermore, the figures are demonstrative of traits of migration into urban centres where government services and modern amenities are more accessible.

Table 7.2: Teacher/Students Ratio

<table>
<thead>
<tr>
<th>Vocational Centres</th>
<th>Teacher/students ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badili</td>
<td>1:22</td>
</tr>
<tr>
<td>Koki</td>
<td>1:21</td>
</tr>
<tr>
<td>Morata</td>
<td>1:20</td>
</tr>
<tr>
<td>Limana</td>
<td>1:13</td>
</tr>
<tr>
<td>St Therese</td>
<td>1:14</td>
</tr>
<tr>
<td>Basanengka</td>
<td>1:19</td>
</tr>
<tr>
<td>Kamaliki</td>
<td>1:14</td>
</tr>
<tr>
<td>Maria Hilf</td>
<td>1:20</td>
</tr>
<tr>
<td>St Joseph's</td>
<td>1:16</td>
</tr>
<tr>
<td>Malahang</td>
<td>1:18</td>
</tr>
<tr>
<td>Awande</td>
<td>1:0</td>
</tr>
<tr>
<td>Kassam</td>
<td>1:17</td>
</tr>
<tr>
<td>Komperi</td>
<td>1:8</td>
</tr>
<tr>
<td><strong>Total Average</strong></td>
<td><strong>1:21</strong></td>
</tr>
</tbody>
</table>

Considering the number of students in each centre, the teacher/students ratios as shown in Table 7.2 are in proportion to normal size class in PNG schools. Take Badili for example, one teacher to twenty-two students for a theory lesson is quite reasonable. In fact the required class size for vocational centres is between fifteen and twenty (Department of Education 1997). However, considering the poor conditions and inadequate facilities of many of the centres: the classroom space and furniture, tools and equipment, the climatic conditions (especially high temperatures), the health and cleanliness of some of the students and the odour and atmosphere created this way make 22 students a large class; not only to teach but to properly and carefully supervise particularly in practical workshops. The Basanengka mechanics workshop (Plate 4.23) can take about ten students but as can be seen ten is still a crowd to actually gather around the old motor engine as the teacher gives instruction. The Morata mechanics workshop (Plate 4.12) is the same and so are the home economics classes in Limana (Plate 4.16) and St Therese (Plate 4.18). Sewing machines, stoves and
utensils and craft materials as observed in these centres were not adequately supplied. In these circumstances, the teachers could not adequately supervise the students.

The teacher-student ratio of 1:21 also assumes that all teachers are teaching all the time. But in the largest centres the manager may be required to do administration and most teachers would expect some time off for correction, preparation and administration. The 1:21 ratio is therefore a minimum figure.

7.2.2 Teacher Training

Apart from having acquired trade certificates with a few having done some additional short courses, the majority of the national instructors in the first eight vocational centres have attained the certificate in teaching from the Port Moresby In-Service-College. The teaching certificate is the prerequisite for male teachers wanting to teach trades and agriculture in the vocational centres. For the female teachers, the requirement was the certificate in teaching home economics, which was upgraded to a diploma in 1991. In some of the centres however, several teachers have not attained the certificate in teaching and many of the women teachers were interested in pursuing studies for the diploma. They have yet to be correctly informed of the status of the teacher training programs at the Port Moresby In-Service-College.

As seen in chapter six, the vocational teacher programs could be better. The people involved are trying to rewrite the program and make improvements but it seems like a real struggle. So much so that the male teacher program was actually completely shut down for the whole of 1998 so that the coordinator together with those responsible for vocational teacher training in the Staff Development Unit of the DOE could rewrite the program. The new program, the realization of the DoVET (Diploma of Vocational Education and Training) idea and the relocation of training, seems to be rather absurd. Instead of building on the foundations already laid, the male teacher program is to be relocated to destinations unspecified at the time of inquiry. The female program in home economics is being revised as described in chapter six by teachers with a strong home economics bias, and with no industrial experience.

The information received from those providing teacher training and from many of the graduands of these programs placed in the vocational centres indicates that the training is not satisfactory. First of all, the objectives\(^\text{26}\) of these programs are far too parochial, inward-looking and restrictive. Hence,

\(^{26}\) Refer to chapter six for details of objectives.
the duplication and multiplication of these objectives in the vocational centres where the graduates have been placed.

Secondly, the content of the program following on from the objectives is limiting. Here, the vocational training policy guideline for 'community development', for 'self-employment' come to the fore, but the objectives and the programs make no indication of such. At the same time, how can the trainees in the centres aspire to set up business enterprise - the intended destination of so many - if they do not know how to plan and manage one, or know anything about the economy, market forces and the informal markets?

Thirdly, the duration of one to two years of training is another factor that renders the program unsatisfactory. It needs to be appreciated that the teacher trainees were Grade 10 graduates and limited in their knowledge base, abilities, skills and experience (excepting the tradesmen). They need training of a longer duration to be able to organize and adapt the new thoughts and ideas (Berger 1988) and expand on those ideas; and time to experience certain work skills and practices worth taking to vocational education and training.

Finally, the programs are not satisfactory because of the lack of supervised industrial training experience (The International Bank for Reconstruction and Development/The World Bank 1991). Many private work place managers either don't realize how important it is to supervise and report on the students' performance or alternately they just do not have the time to spend on an activity not directly beneficial to the company's economic advantage.

7.2.3 Vocational Centre Inspections

One of the key problems faced by the teachers in the field is the lack of support - be it in-service courses or up-dating certain skills, or just extending moral support and encouragement and much more. There are only eleven inspectors for all 19-20 provinces (the status of North Solomons is uncertain) and the National Capital District. In some cases, one inspector looks after two to three provinces. The 1998 funding for inspection was K1,100. To visit all centres and teachers, the available funds would be sufficient for only one proper inspection trip.

7.2.4 Buildings and Infrastructure

Obviously the first thing to notice on entering a centre is its buildings. The buildings and facilities themselves often tell much about the character of the centres, and whether or not they are of good
quality. Having seen the quality of the buildings such as the offices, dormitories and the classrooms, and having then inspected the facilities such as the toilets, the kitchens and the libraries, certain expectations were raised in my mind about the kind of reception I may receive. Perhaps I ought to have stayed longer then I may have confirmed my observations but I did find the reception in all the centres very positive. The condition of the classrooms, the dormitories, the offices and the teachers' houses somehow did not seem to matter to the vocational centre population. Afterall, where else could they go? It seems that this is their only best, and perhaps the only option.

Table 7.3 gives some idea of the quality of the buildings and facilities in the centres. This assessment is based on my professional judgement and not on any specific standard measures. The buildings and facilities were judged as 'good' or 'poor' and quantified by a value between one and ten, along with the specific items as observed in Chapter four and five. It may be that measuring the quality of one individual building against another in the same centre may be a better way of taking a general view of all the buildings. But for the purpose of this research, it was thought that the most appropriate way to measure building standards was to make an assessment of all buildings in each centre.

As indicated in the table below, Limana, St Therese, Komperi and Malahang have the best buildings and facilities, followed by Kassam, St Joseph's, Maria Hilf and Badili. On the other end of the continuum, Koki, Morata, Basanengka and Kamalike have the poorest and Awande has the worst quality buildings and facilities.

<table>
<thead>
<tr>
<th>Vocational Centres</th>
<th>Good</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badili</td>
<td>√(6.5)</td>
<td></td>
</tr>
<tr>
<td>Koki</td>
<td>X (3)</td>
<td></td>
</tr>
<tr>
<td>Morata</td>
<td>X (1)</td>
<td></td>
</tr>
<tr>
<td>Limana</td>
<td>√* (9)</td>
<td></td>
</tr>
<tr>
<td>St Therese</td>
<td>√* (9)</td>
<td></td>
</tr>
<tr>
<td>Basanengka</td>
<td>X (1.5)</td>
<td></td>
</tr>
<tr>
<td>Kamaliki</td>
<td>X (2)</td>
<td></td>
</tr>
<tr>
<td>Maria Hilf</td>
<td>√ (7)</td>
<td></td>
</tr>
<tr>
<td>Awande</td>
<td>X (.5)</td>
<td></td>
</tr>
<tr>
<td>Kassam</td>
<td>√ (8)</td>
<td></td>
</tr>
<tr>
<td>Komperi</td>
<td>√* (9)</td>
<td></td>
</tr>
<tr>
<td>St Joseph's</td>
<td>√ (7)</td>
<td></td>
</tr>
<tr>
<td>Malahang</td>
<td>√* (9)</td>
<td></td>
</tr>
</tbody>
</table>
7.2.5 The Curriculum

The traditional argument that local conditions differ widely so that a common curriculum for all vocational centres cannot be written has been found to be false. The case studies reveal that there have been more trades and trade-skills in common than not. The following trades were offered for the male students in every centre surveyed (except, of course, where there are only female students in a centre):

- agriculture
- auto mechanics
- carpentry and joinery
- plumbing
- steel fabricating and welding
- panel beating and spray painting
- sheet metal
- brick-laying
- electrical

For the female students, the courses were:

- home economics (e.g. nutrition, cooking, sewing, personal hygiene, mother craft etc.)
- secretary/receptionist
- typing/computing
- clerical
- cash registrar
- handicraft
- office procedures
- gardening

The courses that were not taught widely were restricted due to either a lack of resources or the lack of suitable instructors as in the case of the agriculture teacher in Morata. Courses that differ on the grounds of location are few and include outboard motor mechanics and fishery for coastal centres only, and courses involving electricity omitted from rural centres where electricity is not available. However, not all rural centres are without electricity. Kassam, a rural vocational centre, provides its own electricity. The question I wish to raise is if a common curriculum cannot be provided on
national basis then why not provide a regional one or provide one for the highlands region and another for the coastal/islands regions? Or perhaps, a core curriculum with options to meet particular needs.

When asked about whether or not the centres had a syllabus, several of the teachers commented that they had contributed ideas to the Curriculum Unit but so far the centres continue to use what they themselves have prepared. What the teachers did not know was that the Curriculum Unit had provided only an information paper on the curriculum for vocational centres (Department of Education 1997). The committee that worked on the 11-page document had only one representative from the vocational centres. Consequently, the following example of a program comes from that particular represented centre.

Table 7.4: Example of a Vocational Centre Program for the Female Gender

<table>
<thead>
<tr>
<th>Year One</th>
<th>Year Two</th>
<th>Year Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Basic typing</td>
<td>1. Sewing</td>
<td>1. Advance sewing</td>
</tr>
<tr>
<td>2. Home management</td>
<td>2. Food and nutrition</td>
<td>2. Catering</td>
</tr>
</tbody>
</table>

Source: Adapted from Vocational Centres Curriculum, Department of Education (1997:3).

Table 7.4 provides further evidence from that which the centres have already presented in the case studies. On closer examination of the course offerings suggested by the Department it is apparent that a few new courses such as catering, computing and tourism have been added, otherwise the programs remain very traditional.

The programs proposed by the curriculum unit and undertaken by the centres do not reflect policy goals. This situation raises a question about the capacity of the curriculum unit and especially the curriculum writers. One of the greatest shortfalls observed has been a failure to take into account the numerous pilot projects, research, and consultant reports on particular circumstances, theories
on education, curricula and so on. For example, the information paper on the vocational centres curriculum published in 1997 made no mention of the GTZ project which is current and has attributes that could be integrated into the general vocational training system. Networking with other vocational training projects seems rather poor, but not taking into account certain available facts and theories is even more important. According to Berger (1988:31):

> we need some way to select significant facts and to organise them in a way that will take us deeper than our first speculations, which are probably biased by being based on our own limited experiences. ... A theory provides a framework of general ideas that permits a broad and cohesive view of the complexities that may be involved in any given human interaction. Theories can be used to organize our assumptions and guesses ...

The inwardness stagnates teachers who have not been trained in some of the courses such as tourism, and many do not have industrial experience. Furthermore, there has been no in-service or refresher courses for the teachers so that this makes it doubly hard for the teachers, but worse for the students as they cannot receive quality instruction. At the time I visited a particular centre in 1998, the above program was not effectively operational. A new manageress was appointed in early 1998 while at the same time it was announced that the centre was to move on to become one of the vocational secondary schools. Under the circumstances, the centre really did not have the capacity to implement any change.

One of the few pluses for the current vocational training has been the 'on-the-job training experience' which, it is hoped would extend and to be designated by the much preferred terminology of 'industrial training'.

The curriculum in the Asia and the Pacific project (Department of Employment, Education, Training and Youth Affairs 1993) reported certain curriculum views that may be of interest to PNG also. These views included:

- more effective and economic teacher development programs
- improved assessment and examination practices
- curriculum decision-making
- developing vocational and living skills programs
- introducing thinking skills in the curriculum
• the centrality of values in the curriculum

The overseas representatives together with Australia identified these views as being areas of mutual concern and those that would possibly benefit from co-operation. PNG could learn a lot from Australia's exchange with Europe and Asia. Instead, PNG is far too inward looking with a curriculum that continues the colonial legacy and is bound up in its social cultural mind-set. Faraclas who has been quoted in Taylor et al (1997:63) argues that the continuing economic difficulty that confronts PNG "... lies in the cultural pathologies that are assumed to characterize PNG society". That is really our biggest handicap. We Papua New Guineans want the modern Australian comforts but we still want to hold onto certain traditions of our cultures such as the critical 'communal land tenure system' that limits the spirit of progress and prosperity. This kind of traditional mentality is real, like a spirit from the past that continues to manifest itself in PNG contemporary society. It is seen in the 'wantok system'\footnote{The 'wantok system' refers to people who speak the same language or come from the same area. Today its usage has widened to include all Papua New Guineans and expatriates who identify with PNG. But here it is concerned with the way groups of people are tempted to give favours to each other.}, in nepotism in government and for the purpose of this thesis, it is in the vocational training system particularly in its curriculum development.

Another key issue is the language of instruction and students' language and literacy levels. This study shows that Grade 6 school leavers' literacy skills were very inadequate as well as their comprehension in the English language. To assist the students, the teachers use either the pidgin or motu languages. What this means is that inadequate language skill hinders students' understanding in class and own private study. For example, some Koki students cannot easily take a dictation lesson and/or do written tests. There were students who also had never had the chance of going to school for any background education at all. The teacher under these circumstances carries a load far beyond the normal requirement. And when teachers are not adequately trained, students' special situations are an added strain.

These situations become a real problem for the vocational centres in Papua New Guinea because the centres are expected to fulfill several functions. They are a last resort and/or a second chance – for those who were unable to continue in the sequence of formal schooling. If the centres set a high entrance barrier, say Grade 10, then they will have fewer problems with language and literacy, but where can those with less than Grade 10 pass go? It is a real dilemma, indeed they would have lost their second chance.
7.2.6 Finance and Resources

The financing of the vocational centres was one of the most difficult items to ask questions about. A few centres showed no difficulty in bringing out the finance and budget files, and even gave me copies of their financial records. This included St Therese, Maria Hilf and Basanengka. Female manageresses ran these centres. The male managers in the first eight centres were quite reluctant to actually show records of their centre's accounts. The manager of one centre had to look into a cane basket to find a paper that has some figures on it while in the office next door was a computer able to store the centre's accounts. Some of the managers were also reluctant to talk about their books to fellow members of staff, except Mr Say of Malahang who reported on and displayed the financial accounts once a month at staff meetings. It is uncertain whether the women were more open because they were talking to a woman and the men were constrained because a previously unknown woman was questioning them, or whether other factors were involved. As public monies largely fund the centres, there should be a standard way that their budgets are made public.

Table 7.5 presents each of the first eight vocational centres' estimated budgets, expenditures, government subsidies, project fees and the actual amount of funds received up to the months of May/June 1998. These funds were for centre spending only as the wages and salaries for the teachers were the responsibility of the DOE.

Table 7.5 Vocational Centre Finance (K) 1998

<table>
<thead>
<tr>
<th>Vocational Centre</th>
<th>Subsidy</th>
<th>Project Fee</th>
<th>Est Budget</th>
<th>Actual Rcvd</th>
<th>Est Expend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badili</td>
<td>400</td>
<td>70</td>
<td>225,130</td>
<td>17,300</td>
<td>220,000</td>
</tr>
<tr>
<td>Koki</td>
<td>400</td>
<td>70</td>
<td>197,400</td>
<td>22,400</td>
<td>101,400</td>
</tr>
<tr>
<td>Morata</td>
<td>350</td>
<td>35</td>
<td>117,040</td>
<td>16,000</td>
<td>112,000</td>
</tr>
<tr>
<td>Limana</td>
<td>350</td>
<td>50</td>
<td>46,000</td>
<td>21,113</td>
<td>42,000</td>
</tr>
<tr>
<td>St Therese</td>
<td>350</td>
<td>50</td>
<td>47,300</td>
<td>27,000</td>
<td>44,900</td>
</tr>
<tr>
<td>Basanengka</td>
<td>228.72</td>
<td>70</td>
<td>59,680</td>
<td>35,810</td>
<td>59,300</td>
</tr>
<tr>
<td>Kamaliki</td>
<td>250</td>
<td>70</td>
<td>137,000</td>
<td>28,000</td>
<td>49,710</td>
</tr>
<tr>
<td>Maria Hilf</td>
<td>250/150</td>
<td>150/100</td>
<td>56,152</td>
<td>15,372</td>
<td>52,909</td>
</tr>
</tbody>
</table>

Note: Annual subsidies and project fees are shown in this table. Other fees and grants, and self-generating incomes are not included. The Basanengka vocational centre alone was given a special funding of K160,000 not included in the table.

Badili had the highest budget estimate of K225,130 with an equally high estimate of expenditure of K220,000. The reason being that Badili had been earmarked to start as a vocational secondary
school (VSS) under the education reform program. The buildings and facilities were most inadequate and there were plans to build a new science laboratory before the 1999 school year. Limana with only a K46,000 budget income estimate and expenditure at K42,000 was also being earmarked to start as a VSS but it seems that Limana has no plans for any major development project. Badili however had 479 students compared with only 115 students in Limana. Both had received in the first half of the year K17,300 and K21,113 respectively. Badili in particular was disappointed at the low, slow rate of flow of funds from the Department of Treasury and Finance. St Therese and Maria Hilf both had 100 students each, with budgets of K47,300 and K56,152 respectively. St Therese plans to spend K44,900 and Maria Hilf K52,909. Both however have so far each received only K27,000 and K15,372, less than expected though for St Therese, it is the third highest amount received among the eight centres.

Being in the electorate of the then Minister for Education, Science and Culture, Basenenka is set to gain. Already Basanengka had received more than half of its estimated budget (K59,680) and expenditure K59,300, an amount of K35,810, more than any other centre. On top of this, Basanengka was allocated a bonus in the provincial budget appropriations to the tune of K160,000. This additional fund however, became a source of conflict between the centre and the provincial vocational co-ordinator as to how the money was to be spent. In this instance the co-ordinator wanted to get a local private company to build the two planned dormitories, but the centre preferred to get all the money and use its own students to construct the dormitories.

Kamaliki presents another interesting case. The budget estimate is K137,000 and expenditure is K49,710. Of the total expenditure, the centre had already received K28,000, the second highest received after Basenenka, both centres being in the Eastern Highlands Province. Kamaliki spends K1,000 per week on its 165 boarders' rations which adds up to K4,000 per month while | Basanengka with 188 students and Maria Hilf with 100 students both spend K2,000 and K1,000 per month respectively. For the ten school months of the year, Basanenka would have spent a total of K20,000 (which had been budgeted for) and Maria Hilf K10,000. For Kamaliki, the total will be K40,000 which leaves a surplus of only K9,710 for other centre expenses. The indication is that the management is seen to be in some form of political alliance with the top level of local government and perhaps with the private sector retail markets where the boarders' food has been regularly purchased. There is of course no harm in having an alliance (s) but where it involves public money that is limited great care needs to be exercised and the arrangement open to appropriate checks.

Koki and Morata present yet another interesting budget case. Koki's estimated budget income is K197,400, the second highest of the eight centres, and expenditure at K101,400. About K22,400,
the fourth highest, had been received. Asked what actual items were planned for this much money, the manager explained that K1,800 goes to each of four departments, that is a total of K7,200 for the whole year. Then K4,000- K5,000 is spent on exercise books for students, purchases of centre uniforms, identification cards (ID)²⁸ and a whole range of recurrent administrative costs such as telephone, transport, repairs and sporting equipment. There was also a new project, the fencing of the whole centre for security purposes. This list was conveyed to the researcher during one of the interviews.

Morata being located in a squatter settlement with the poorest of buildings and facilities charged the lowest project fee at K35. The reason is that at first the government announced that education was to be free, including the vocational centres. When the government realized it couldn't afford free education, the policy was changed to school subsidies instead. The total cost to run a vocational centre is not known (and varies from centre to centre) but 'subsidies' would mean that the government would not meet the total actual cost. When the centre's BOM decided that the project fee is charged, the students were not happy about it, but some seem not to understand that government policy had changed the centre’s policy. A compromise somehow was reached at the K35 project fee. The estimated budget income was K117,040, with planned expenditure at K112,000. Being the third largest centre of the eight centres with 304 students, it was a reasonable budget. However, Morata received only K16,000 making it the second lowest, above Maria Hilf only on the list of amounts of monies received from government.

It is clear from these observations that some centres are obviously better off than others. A few who may have some form of political alliance stand to gain from the system, while the rest have been marginalised. The researcher is suspicious of the unequal amounts of the subsidies paid to each centre. When a question was later raised with the Minister for Education, Science and Culture, regarding the amounts of the subsidies paid to the vocational centres, it was revealed that each centre should receive K500 per student. Many of the centres also have no idea as to how much subsidy they were supposed to receive therefore, no one really asks appropriate questions. There is no evidence at present that any centre will receive this higher amount, and no centre even seems to accept it as a ‘normal’ amount.

7.2.7 The Students

²⁸ Uniforms and ID cards are sold to the students at a price the students can afford.
On arrival at any of the vocational centres on a normal school day, one notices young people either standing around the school yard or sweeping and cleaning up the grounds before classes begin in the morning (see Plates 4.14 and 4.17), or sitting on a branch of a tree singing at lunch time with no lunch, or sees them in a mechanics workshop standing around a dirty old car engine trying to learn something from it (see Plate 4.23). In other instances some of the young people may be seen in an agriculture plot or at a construction site trying to build a new classroom (see Plate 5.3 and 5.4). In the highlands centres there is the smell of morning fires in the air while the Port Moresby and Lae centres are filled with the sounds of speeding trucks and cars with unhealthy smoke everywhere. Such is the introduction to the sites of vocational centres in Papua New Guinea. The students are the life-blood of the centres. Obviously, without the students the centres cease to exist. The students are the reason that teachers are recruited and housed and paid their wages. The students are the reason that finance is sought and raised.

Yet when it comes to the question of students' needs and the allocation of resources, they are mostly given a low priority. After registration the first place a student goes to in a day centre is the classroom. Some classrooms, as pointed out in 7.2.4 above, are good and well provided with basic furniture and material supplies (see Plate 4.16 and 4.35). These are comforting and welcoming to the new comers - evidence that someone cares for those centres. For those going to boarding vocational centres, the first place they are taken to, after registration, is the living quarters - the dormitories. All the vocational centres studied in the highlands had boarding facilities. Except for the two Swiss mission centres (Kassam and Komperi), the survey revealed that the three major centres inspected (Basanengka, Maria Hilf and Kamaiki), have boarding facilities that would be best categorized as disaster zones. As seen on inspection, these facilities are health hazards. The dormitories are crowded with student belongings hung up or piled up around the sleeping space (see Plates 4.22 and 4.32). In Basanengka, Maria Hilk and Kamaliki bed sheets and laplaps were hung up with pegs around each sleeping space for privacy, but at the same time preventing ventilation and creating a very unhealthy environment for everyone (see Plate 4.32). In Basanengka, for instance, ninety-nine of the male students were accommodated in a dormitory that looked like a tool shed with double bunk beds that sleep three to four male students (see Plates 4.21 and 4.22).

At several centres, the water supply, sanitation, sewage system (non-existent in some), bathroom, laundry, kitchen and dining facilities are very poor in quality and inadequate for the numbers of students (see Plates 4.28, 4.36, 5.2 and 5.9). For example, in Kamaliki, the female students often excrete in plastic bags at night and leave them outside the dormitory until the next morning to take

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29 'Laplap' is a piece of fabric measuring about 1.5 c.m. long and 1.0 c.m wide, usually worn as a covering over the lower part of the body by both male and female.
to the pit toilet because there is no septic toilet in the dormitory. Except for Maria Hilf, there were
no adequate bathrooms or shower facilities in either Basanengka or Kamaliki so that students had
to go to the river to take a bath. They do the same for their laundry. In Basanengka there are no
proper kitchen facilities so that students (especially the girls) go without food when the weather is
not favourable for cooking outside the dormitories under a tree. Although the cooking facilities are
very inadequate in all three centres, Basanengka has the worst. In Maria Hilf, the dining room is used
both as a classroom and for eating. One of these activities needs to end in order for the other to take
place.

Table 7.6 presents the number of vocational students in all the centres under study except for
Awande, which had no student at the time of visiting. It was claimed that the centre had closed. Out
of the total number of 2,359 students in the twelve centres, 1,587 (67%) were male and 772 (33%)
were females. Of the total number of students 165 (7%) were interviewed. Although only 7% had
been interviewed, more interviews would almost certainly have shown the same results as those
revealed in the case studies of vocational centres. The students, the teachers and even parents told
the same stories. My own observations and general discussions with managers, teachers, students,
vocational inspectors, education authorities, vocational teacher trainers and parents confirm the
substance of the case studies as presented. Therefore, the fact that only seven percent were
interviewed cannot detract from the significance of the information or the realities of life in the
vocational centres.

Table 7.6: Number of Students at the Thirteen Vocational Centres

<table>
<thead>
<tr>
<th>Vocational Centres</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
<th>Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badili</td>
<td>409 (85%)</td>
<td>70 (15%)</td>
<td>479</td>
<td>23</td>
</tr>
<tr>
<td>Koki</td>
<td>352 (84%)</td>
<td>68 (16%)</td>
<td>420</td>
<td>7</td>
</tr>
<tr>
<td>Morata</td>
<td>203 (67%)</td>
<td>101 (33%)</td>
<td>304</td>
<td>33</td>
</tr>
<tr>
<td>Limana</td>
<td>0</td>
<td>115 (100%)</td>
<td>115</td>
<td>8</td>
</tr>
<tr>
<td>St Therese</td>
<td>0</td>
<td>100 (100%)</td>
<td>100</td>
<td>25</td>
</tr>
<tr>
<td>Basanengka</td>
<td>149 (79%)</td>
<td>39 (21%)</td>
<td>188</td>
<td>27</td>
</tr>
<tr>
<td>Maria Hilf</td>
<td>0</td>
<td>100 (100%)</td>
<td>100</td>
<td>10</td>
</tr>
<tr>
<td>Kamaliki</td>
<td>117 (71%)</td>
<td>48 (29%)</td>
<td>165</td>
<td>26</td>
</tr>
<tr>
<td>St Joseph's</td>
<td>124</td>
<td>0</td>
<td>124</td>
<td>0</td>
</tr>
<tr>
<td>Malahang</td>
<td>200</td>
<td>100</td>
<td>300</td>
<td>6</td>
</tr>
<tr>
<td>Awande</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kassam</td>
<td>33 (100%)</td>
<td>0</td>
<td>33</td>
<td>0</td>
</tr>
<tr>
<td>Komperi</td>
<td>0</td>
<td>31 (100%)</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,587 (67%)</strong></td>
<td><strong>772 (33%)</strong></td>
<td><strong>2,359</strong></td>
<td><strong>165 (7%)</strong></td>
</tr>
</tbody>
</table>
An important point to note is the number of female students out of the total number of trainees is only 33%. However, the 33% figure is reached mostly because some centres are for females only. Most of the co-educational centres showed less than 30% of female gender attendance except Morata with 33%. Interestingly Badili and Koki both city centres have 15% and 16% of female trainees respectively. The female attendance remains constantly low compared to that of the males. One of the key issues surrounding the low attendance of women and girls will be further considered in point 7.2.9 below.

The female students in the co-educational centres appear to need more attention and care particularly in terms of developing their self-confidence. Many of them are very shy and too self-conscious to speak publicly especially in the presence of the male gender. For example, when the male and female trainees were put together for the interviews in Badili and Basanengka, the males did most of the talking. But when the girls were on their own in their dormitory in Basanengka, many of them spoke up without hesitation.

Apart from accepting candidates from across provincial boundaries, there has been no common prerequisite or criteria for student selection. Some centres restrict the age group from 14 to 18 while others admit students from 14 to 27 years old. The average age of students is between 17 and 19 years old. The level of background education again varies from centre to centre. Some strictly accept applicants who have completed Grade 6 at primary school. More recently as the primary school level has been raised to Grade 8, more of them are entering vocational training at Grade 8. There are also Grade 9 and 10 school leavers who find their way into vocational centres. Again while some restrict selection only to those who have had some educational background from Grade 6 and upwards, other centres take them from below Grade 6 including those with no formal educational background at all. Examples of this are two female students at the Komperi vocational centre (see plate 5.6). The photograph shows one of these girls trying to practise reading and the only reading material she has is the Holy Bible. However, in another centre those with no prior basic education were refused entry. A few centres had some interesting criteria such as Kamaliki where the armpit of a candidate is checked to see that the candidate is physically mature and has body hair. Other criteria involved such things as whether a student was:

- Single, not married
- Single, with no babies/children
- Single, not divorced
- Single, not living in a defacto-relationship (considered married)
and could pass an entry test (see Appendix C4.6)

The various centres choose their own selection criteria as to what may be acceptable to them. There are indeed mothers at some centres but their babies remain in the villages.

In spite of all the problems faced by the centres, and the problems, which affect the student population, the students themselves are hard working and most eager to learn. At Morata and Basenenka, whose classrooms and workshops conditions are some of the worst, students tolerate the conditions and try to do the best they can. The centres create their own cultures, their own lifestyles and ways of doing things. While the city students go into the city during the weekends, the rural students either stay at school or return to their villages. Many help each other like a family or community by sharing such items as food, clothing and soap; or they cooperate to carry out school tasks such as agricultural projects, or they simply accompany each other to the nearest shops. They do not tell their secrets to outsiders. For example, those who have been involved in criminal activities (such as the five interviewed in Chapter 4), and those who may have been married or had babies already do not tell complete stories. Most of all, the students create their own joy and happiness by being together, as they draw their strength from each other. They organize their own sporting activities and singsings or cultural shows. Such was the cultural show held in Basanengka on 5 May 1998 (see Plate 4.26). Students from Maria Hilf also participated. There was a lot of singing and dancing in fine, beautiful 'bilas' or decorations. The air was filled with so much happiness. It was good to see such an occasion in the midst of poverty.

7.2.8 Employment

Contrary to the expectations of the Department of Education and centres that advocate a return to the village, of the 165 students interviewed, only about 3% were interested in returning home to join their family businesses. The majority (97%), planned to go to town and find wage employment. Some of the centres helped their graduates to find employment, and that normally meant urban employment. But most ex-students have to struggle alone to find employment. In the search for work, the graduates in fact have not been prepared to apply for jobs, let alone know how to be interviewed or write curriculum vitae. Also not everyone knows how to make phone calls to prospective employers. The main asset they have is their vocational training certificate. If the centres were to clarify their purpose and admit that students come to them in the hope of obtaining skills to fit them into a modern economy of computers, fax machines and ATMs, then they might do more to prepare their students for such positions, and show them how to apply for those positions.
7.2.9 Security

This study has shown that security is a real problem as revealed by the experiences of the teachers and students particularly at the Basanengka, Maria Hilf, Kamaliki and the city vocational centres in Port Moresby and Lae. Finance that could best be spent on students boarding facilities or learning material supplies had been spent on security in Basanengka and Maria Hilf, yet the rascals break through and threaten teachers and students; and they even get away with cash that teachers cannot afford to lose. In other instances security guards do not appear to care much about the people that they are supposed to protect. In the case of Basanengka, female students were threatened and abused with filthy language and name-calling. In Maria Hilf, the rascal problems led to the devising of a method to signal to the female students when danger was about, while in Kamaliki an unhygienic form of toilet was devised. And in the cities an hour was lost from class every day of the week, as students have to catch a bus home before it gets dark.

Although the women and the girls showed much courage and bravery under the circumstances and should be commended for taking the risk to acquire work skills, knowledge and abilities; there is enough evidence to speculate that many young women may not attend vocational training for fear of the rascals. As noted in point 7.2.7, the low attendance of the female gender is attributed to the continuous threat of security. The female only centres as discussed boost the 33% of female attendance. The 33% of female presence in the Morata centre is particularly due to easy access to public transport. For instance, the bus stop is just outside the centre gates while in Badili (15%) and Koki (16%), there is a good walking distance from the bus stops to the centres. The concerns and fears of the teachers and students are no doubt real. I had the rare privilege to interview five former rascals in one of the centres - as presented in Chapter 4. Indeed those young men had tasted a kind of life they no longer wanted to live. As Paulo Freire once said, it is only when people become conscious of their problem from within themselves that they then resolve to take action for a lasting change. It is hoped that these young men have reached that level of awareness.

Dinnen (1998) in his discussion on 'Criminal justice reform in Papua New Guinea' has pointed out that most of the strategies for managing crime had outlived their usefulness. It was noted that the PNG has failed in not being flexible and open to "the findings of criminological research exploring alternative strategies for the management of crime" (Dinnen 1998:3). If the PNG government is not open to alternative strategies, at least there is one vocational centre that has opened its doors to welcome former criminals and give them hope for what Dinnen (1998:3) has called in his paper, "restorative justice" for both the victims and perpetrators of crime.Exiting crime is of course not easy, neither is it any safer when there is nothing useful to fall back on. More often than not, many
former criminals who left a life of crime returned because there was nothing else to do. While I agree that linking exiting a life of crime with economic opportunities and a departure from the notion of being marginalised by being provided with employment opportunities, micro-credit facilities and small scale projects, ‘education and training’ ought to be added as an important component in the restoration process (Dinnen 1998). Yala and Levantis (1998) pointed out that PNG leaders and politicians misunderstood or were confused about the effects of the law and order problem on people in PNG. People, they say, are affected not only physically but constantly harassed psychologically and emotionally. In addition, law and order problems cause fear to the extent that these affect business performance, foreign investment in PNG and hence the economy as a whole.

The security problems at the vocational centres are peculiar to PNG. Elsewhere the literature makes no mention of life threatening security situations in vocational training institutes, as is the case in PNG. This does not mean that it is a lesser problem. In fact the security problem is bigger and more important in PNG then perhaps has been acknowledged. Security is a national problem and the vocational training centres might hold some of the answers. But of course the centres can play only a minor role. Problems of law and order are national problems.

7.2.10 Other Schemes and Issues

In an effort to assist the youths, young adults and the unemployed school leavers, the DOE trialled several schemes with the help of foreign aid donors. These schemes involved the village development scheme, GTZ, and vocational secondary schools, the Churches and NGOs. Other government departments conduct schemes that also provide some sort of vocational technical training. For example, various agricultural stations and the Small Industries Centre of the Department of Trade and Industry in Port Moresby provide instructions in particular skills. Many of these schemes operate on a non-formal basis. The key deficiency found here is the lack of co-ordination and networking. There is much overlapping but very few know what others are doing in what is generally the same field.

Other issues concern teachers who want to return to college and upgrade their teaching qualification. Many with husbands or wives and children find it hard to return especially without help with finances and accommodation. Gender issues were unheard of in the vocational centres. Those who have heard of the term somehow thought it is a new word for ‘women’, so in fact to talk about gender was talking about women. The female students do have special needs. For example, those who are divorced or single mothers, or married and mature-age who need to acquire some
work skills, where do they go if they are excluded from the centres? Similarly, their security and safety is not only a fear of rascals, but difficulties arise from their customs and traditions too. What security is there to protect the girl when she reaches menarche and parents turn up at the centre and take her away to the village? It is often doubtful if the girl will be returned. Moreover, there is the issue of former rascals with criminal records who have a change of heart or simply desire work skills. How can the centres best deal with these sorts of situations, so that teachers do not get hurt in the process of trying to do good for society?

Although there are no formal agreements in place, the centres are developing more flexibility to cater for the varied needs of the students.

7.3 What is the Policy?

Policies set the guidelines for what is done in the centres and for what is planned. Without good, relevant and implementable policies, governments, and more particularly, public servants lack direction and the allocation of resources are not likely to be efficient or appropriate. The thesis has revealed that the government of PNG has had no official policy on vocational education and training for almost a century. Table 7.7 indicates policy intentions only.

Table 7.7: Vocational Training Policy Intentions

<table>
<thead>
<tr>
<th>Date/Period</th>
<th>Policy Intentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before World War I and II Papua (Late 1800s-1942)</td>
<td>Towards Civilization For village development</td>
</tr>
<tr>
<td>After World War I &amp; before World War II Mandated Territory of New Guinea (1914-1942)</td>
<td>Australian Military Rule - to maintain the German System? Australian Mandated Rule - to educate a small number of New Guineans in needed craft skills.</td>
</tr>
<tr>
<td>After World War II (1946-late 1960s)</td>
<td>Reconstruction of war damage. To provide training in skills, to improve living conditions in particular communities and to meet specific community needs.</td>
</tr>
<tr>
<td>1967-1974</td>
<td>Towards Independence - For village development</td>
</tr>
<tr>
<td>After Independence (1975-1995)</td>
<td>To fit back into community To service approx 87% of population who will either not enter the formal economy or self-help in the periphery. To improve standard of living by improving subsistence skills ... to create profitable businesses (Dept of Education 1991).</td>
</tr>
<tr>
<td>1995-2000</td>
<td>Vocational education for the individual, community and national development (Dept of Education 1997).</td>
</tr>
</tbody>
</table>
From the evidence presented in the literature surveyed, the case studies on the vocational training centres and discussions with the officials of the Department of Education, it is clear that either the government must develop policies to fit into what is happening in the vocational centres, or allow the best that is happening in the vocational centres determine and rewrite vocational education and training policy and thus dictate what policy should be.

7.4 Vocational Education and Training and Human Needs

At this point I return to Chapter 1 where the cycle of unemployment and Maslow's hierarchy of needs have been discussed. Unless the cycle of unemployment is broken people will continue to suffer the consequences of the lack of work skills for wage employment leading onto deprivation of income and ending in poverty. Every Papua New Guinean has a right to achieve and satisfy every level of human need as presented in Maslow's hierarchy of needs (Berger 1988).

Figure 7.1: Breaking the Vicious Cycle of Unemployment

Through training and education we may hope to cut the vicious cycle of unemployment and its ill effects on the economy and the lives and livelihood of all Papua New Guineans. Or, at least we may break, the cycle for more than the struggling centres now do.

7.5 Summary of Discussion

Historically vocational technical education and training have evolved over the centuries from European industrialized countries, to Asia and the Pacific regions. Vocational technical training has been shaped by national socio-economic, cultural, religious, industrial and political histories. In Europe, the North Americas and Asia, the common features have been:
practical or industry based training
skilled or competency based curricula
training for employment in industry

Therefore, the general policy guidelines in those countries have been driven and shaped by industries. Training as a policy requirement must be linked to industry.

In the South Pacific region (excluding Australia and New Zealand), it seems that the governments of the island states have not made any substantial commitment towards developing this sector of education and training. At present it appears that vocational training has been given over primarily to the Churches and to Non-Government Organizations to more or less 'run the show' (Cole 1996). The findings of various inquiries suggest that there has been poor co-ordination, monitoring and direction, particularly within in-country programs. Policy and legislation on this sector have not surfaced either. Furthermore, there seems to be no formal or informal links between island states or any forms of exchange regarding vocational training.

In Papua New Guinea, vocational education and training have come a long way over almost a century. Yet with the administrations' policies on gradual development, accompanied variously with sympathy, prejudice, lack of resources and a limited economy, vocational technical education and training has had a rather stunted growth. With a varied colonial missionary history behind PNG, this training sector has passed through a few name changes but little in the curriculum itself. While vocational training has been industry-driven in the industrialized and Asian economies, in PNG it has been driven first by aims to civilize then to provide skills in a village setting and to help establish the basis for an independent state. There has been no official government policy except policy intentions, which appear to run more or less on parallel lines to the activities of the vocational centres. It seems that after the declaration of Independence, the steam for vocational education and training has run out. An unspoken command seems to have been echoed through the vocational system, 'you either progress by your own powers or perish!'

Such has been the case for the PNG vocational centres particularly those that participated in the research. The findings indicate that the Church agency centres were much better than the majority of the government run centres. In terms of centre financing, some are better financed than others are and some degree of political linkage is probably emerging to benefit some centres. Perhaps it is too early to make this suggestion, but it seems that vocational centres may be set to gain financially when students flood the centres with numbers high enough to attract vote-buying politicians. Skills
in budgeting and management of funds are lacking in the majority of centres surveyed. Other findings show teachers’ qualifications and inspections need looking into for depth of subject knowledge and the quality of inspections.

Vocational education and training provide a second chance to gain monetary benefits by those who have tasted a little of general education, yet others for the first time want to go down the same road. Students, both male and female, have been enthusiastic, many eager to learn and tolerate the worst of dormitory and classroom/workshop conditions and the worst of resources. They look to the day when they shall defy government policy intentions, and instead of going back to the village or working mostly in agriculture, go out and compete with technical graduates for employment in industry. Indeed, the majority of vocational students want to go to town and look for a job after the completion of their training.

The PNG vocational training system has certain features that are found nowhere else. These are first of all, security problems, which are not found elsewhere in the literature surveyed. And secondly, most of the centres provide board for students. Boarding school facilities are an essential part of the education system in PNG due to the geographical conditions. In many parts of the country students cannot travel every day to and from many centres. But the centres ought to be suitable, safe, healthy, friendly and comfortable. Even if some of the students have not come from good, clean homes, at least for them this would be a learning situation. The school would provide an example of how to live in a clean and healthy environment with other people.

In all the vocational education and training literature reviewed, no one seems to have looked into student welfare in terms of provision for boarding and lodging. For example, UNESCO (1980) on vocational education and training in Europe, Asia and the Pacific, Derrick (1952) and Harlow (1953) both on the Pacific region, COSTAC (1990), the mission team on vocational education and training in Australia and the industrialized countries and Cole (1996) on non-formal education in Melanesia, all have nothing to say on student accommodation. For this reason, there are no comparable standards from overseas to measure against those of PNG. Comparing the boarding facilities within PNG itself, particularly in those three centres in the Eastern Highlands Province, (that is, Basanengka, Maria Hilf and Kamaliki) only Maria Hilf had flush toilets but the water supply remains a real problem. Also, the dormitories of Maria Hilf although crowded, are a lot cleaner and have a fresher atmosphere.

Overall, the findings of this thesis suggest that vocational education and training have many difficulties, but it has a future and it provides hope of a second chance to the more than 50,000
students who leave school every year and have nowhere else to go in the education system. That the cycle of unemployment may be broken so that the most basic human needs for food, water, shelter and clothes may be provided is essential, and effective vocational training must be part of the answer.
Chapter Eight

Conclusion: Training and Education for a Vocation

8.0 Conclusion

I return to the question posed by Matane (1968:27), "Education for what?". Others after him have raised the same question: (Bugotu 1975, Kaye 1984), and the debates of the 1960s and 70s on the relevance and appropriateness of education and training in Papua New Guinea (Tololo 1975, Forster 1975, Cleland 1975, Geoffrey Smith 1975). The debates on 'education' - whether for the youths, young adults or the unemployed members of society - all pointed to the desire of developing the 'society', the 'community' and the 'nation'. To the nationals (citizens) it was in the sense of political pride and nationalism. To the non-citizen, it was in the sense of doing good for PNG society. The intention to develop communities, to improve the villages and to build the country has been the dominant argument for the creation of vocational training since its introduction.

In the foregoing pages, I have tried to demonstrate that the priority of governments, including the PNG Government, for vocational training and education has been on what I have just mentioned 'nation building'. The European industrialized countries and the Asian economies for instance, have established policies in their vocational technical systems to link into industries which in turn are expected to benefit their national economies, while the Pacific and PNG direct their efforts more at the community level. The outlook for the development of technical education, including vocational, in PNG in the twentieth century, have been quite optimistic, and with good reason. Vocational technical graduates and trainees served a real need in assisting local government councils, the administration and the missions to build a modern infrastructure as well as bringing improvements to village living conditions and mission stations in terms of housing, agriculture and health, all geared towards national development.

But do all parents send their children to school for these reasons? According to Foster (1975:19), "... people do not send their children to school for the good of the nation: they send them there for their own good". Foster spoke these words 25 years ago at the Eighth Waigani Seminar in 1974 yet it seems no one took them seriously. He strongly argued for parent and children 'centred' educational policy. Foster (1975:19) stressed that:
Papua New Guineans have seen and will continue to see schooling as an instrumental mechanism for the enhancement of their own income and status or that of their children and acceptance of this all too obvious fact must become the starting point for all educational policy.

As mentioned in Chapter seven it seems the enthusiasm for national development ran out of steam after independence. Subsequently there has been more individual focus, 'what can I do to better myself and/or my family' not 'what can I do to better my country?' which is more of a secondary matter.

I am not suggesting that national development policies should be set aside, far from it. But I am advocating that the position of priority be switched around to make 'people centred' policy as the 'number one' priority, and capitalize on the selfish motivation of individuals for the ultimate benefit of all (Foster 1975). The communities and the nation even as second priority, should gain more as people increase in their knowledge, skills and abilities through education to return benefits to society. A German philosopher Friedrich Schiller believed that people could investigate and comprehend only with the resources of the human mind (Bridgewater and Sherwood 1959). But when the mind is malnourished and unhealthy, how can a nation benefit? Therefore, vocational education and training policies must be guided by an awareness of widely understood human needs.

The general thrust of the argument in this thesis has been concerned with the provision of an effective, resourced 'vocational education and training' as a point of entry into consideration of the provision for 'basic human needs'.

Indeed, as pointed out in Chapter one and seven, unless the cycle of unemployment is broken, the potential of people in terms of the value of knowledge they hold, the skills and abilities they may possess may not be fully realized. And as traditional skills of survival are fast diminishing and may not be as relevant and appropriate especially in urban centres, I am suggesting alternatives must be provided.

Historically, vocational education and training as seen in the preceding pages was the one sector of training favoured by Sir Hubert Murray's administration and many of the missions who provided practical training. It was perceived in the beginning, at the raw stage of modernization, as the most practical approach to changing the village societies and civilizing the people. However, it was unjustly neglected in favour of formal academic schooling and higher education particularly in the 1960s.
The case studies show that vocational training centres are very important point of entry for training in skills development for the vast majority of school leavers, the unemployed, re-skilling for new trades and professional careers; and a learning institution for first and second chance learners. The centres are community based and less intimidating for the ordinary folks. Indeed, the vocational training sector has great potential to skill the people: first for their own welfare and livelihood and secondly to benefit nation building.

However, as clearly demonstrated by the case studies and related issues, skills development and professional training in the vocational system has been hindered by the shortfall in human, finance and material resources. Clearly, the teachers are the key to either the success or the failure of the vocational system. The careers of the teachers need noting. Many have followed the regular path – for females: from Grade 10 in high school to Port Moresby In-Service College and straight on to vocational centres. For males: from Grade 10 to apprenticeship then to Port Moresby In-Service College before going to the vocational centres. In this way the male teacher has an advantage because industrial work experience has been gained.

Some have followed different paths. For example, the late Mrs Helen Faunt, the then manageress for St Therese, was originally trained for secondary teaching, and specialized in maths and expressive arts. She chose to shift from secondary where the pay and employment conditions were better to vocational teaching. Others have moved from primary school to vocational such as Mrs Marina Arere, manageress at Limana. She gave up a career of 13 years teaching in primary school and joined vocational teaching, which requires more hard work but she found it satisfying.

Another teacher who gave up primary school teaching was Mrs Fiona Sudan of Limana. Her story tells not only of teaching but also of her family obligations. She began her career as a primary school teacher then her marriage derailed her career as she had to raise a family before sponsoring herself to gain typing skills. This move gave her an opportunity to work for a private firm, but again not for long, because she gave up her job to join her husband on his long service leave in the village. Fortunately, typing teachers are in demand and she was able to return to teaching but in the vocational system.

Catholic nuns are an interesting addition to the vocational teaching force. Sister Mary Angela was a Grade 6 leaver who studied her way through CODE and completed Grade 10 even though she was not awarded the certificate. She is one of those who could be identified as being called to a vocation (as defined in Chapter two) in teaching and helping young women. She readily travels wherever she is sent to teach by her superiors.
Mr Latima Gelenawa of Koki is another interesting but ambitious teacher and a qualified tradesman. He gave up his employment with the Department of Works and opted to teach in vocational centres. Since joining vocational training, he has attended four short courses with one being self-sponsored. This is indicative perhaps of teachers not been aware of funds being available for training if they make an official application.

Another qualified tradesman, Mr Asuviya Kuma of Basenenka, could be earning more money outside vocational system, but again opted for vocational.

Some wantoks might also be influential as in the case of Mr Aisa whose nephew assisted in his recruitment and subsequent appointment. Mr Aisa has thorough experience of the trades system, and working knowledge of industry where he was involved before joining the Department of Education. Being senior in age, Mr Aisa has come through the colonial system and noted that the skill level was then higher and the quality better than now.

Staff appointments are a national function but as noted in Awande Vocational Centre’s case the provincial education office had a hand in the selection process. The National Department of Education would appear to be often less informed of what is happening in the vocational centres than is desirable. This is clearly demonstrated in the case studies.

Promotional opportunities are very limited. There are only three rungs on the promotional ladder:

i. teacher
ii. senior teacher
iii. manager /manageress

Most managers have been instructors before being promoted to a manager’s position. Very rarely, an outsider is appointed manager. In Awande Vocational Centre’s case, it may have been a case of nepotism and the negative aspect of the ‘wantok system’. This case also shows a weakness in the system that has been condoned by authorities.

Under the reform, the new base salary for a starting vocational teacher appointees is at Level 2, upgraded to be the same as primary schools. The base annual salaries are as follows:
i. Level 2 - vocational and primary: K8,624 (fortnight K330.63)
ii. Level 3 - secondary schools: K9,599 (fortnight K368.01)
iii. Level 4 - national high schools: K10,589 (fortnight K405.97)
iv. Level 5 - technical/business colleges: K11,774 (fortnight K451.40)

The fortnightly pays are given in gross amounts, so that after deductions are made, the teachers are left with a very minimum net income to last until the next fortnight. In comparison to the general public service, the teachers' salary rates for new appointees are better. This takes into account that teachers' work does not begin at least at 7.45 a.m. and end at 4.06 p.m. as does the general public service. For example, a clerical officer beginning at base salary point 1.1 receives an annual income of K4,128 (fortnight K158.26) at the lowest end while at the top of the range at point 1.7 it is K5,046 (fortnight K193.46).

However, educational qualifications determine the actual Levels where teachers are placed. Adjustments are made whenever teachers gain additional qualifications. Therefore, the DoVET course is an incentive not only to improve instruction in the centres but also for teachers who may gain a pay rise.

Some teachers remain in one centre for a long time, such as Mr Rosales who has taught in Badili for 19 years. Others are easily shifted around as in Mrs Cauthilda Koriwa's case. She, like many others, has been moved around to different centres quite frequently. In eight years, Mrs Koriwa has taught in five different centres.

One of the strengths of the vocational system is the unity that teachers create by being able to come together from different provinces, and live and work together for a common purpose. Even the fifty-eight non-citizens easily fit in with the centre communities. This is also reflected among the students where many have gone away from their own provinces looking for training. This is an important aspect of nation building and should be encouraged. It seems that this (spirit of unity) is one of those qualities that helps centres get through the months of hardships and still have a graduation at the end of the year.

Clearly, individuals can make a difference as in the case of Mr Julian Say. Mr Say can be seen as a model teacher and manager. He has a solid educational background and vast experience in the trades, business and professional skills and know-how. He set an example of good financial accountability and a small business enterprise that generates income. Mr Say looks after the welfare of his staff, knowing that he cannot go it alone. When teachers are housed and happy, training at the
centre may progress. Mr Say’s is a success story on how to transform a vocational centre into an enterprise generating its own income while providing an effective training to school leavers and the unemployed.

However, the centres fail most of all to meet the aspirations of the girls and young women. As evidenced by the case studies the girls do not want to go back to the village. Compared with boys in the villages, the girls have less control over their lives, fewer chances to earn cash, fewer chances to travel, and they are more vulnerable to violence and security risks. And in the centres the girls have fewer opportunities to get the training that will enable them to obtain interesting jobs in interesting surroundings with reasonable wages. The girls have seen enough films and videos, television and magazines to know a little of the modern world. They want to enter that world of air conditioning and electronics, fashionable clothes and hairstyles. They realise that they have to be able to use the machines of this world – the key boards, telephones, facsimiles, photocopiers and cash registers. But they get home economics. Except for the slight chance of entering the food and catering industries or by learning dress making and repairing, they have fewer chances of getting into the cash economy at more than the lowest level.

Two of the major problems identified at the education sector study in 199 were:

i. an irrelevant curriculum that did not meet the needs of the local communities

ii. inequality in gender participation and distribution of education services

Almost a decade has gone by since these findings have been made known, yet the vocational training curriculum remains the same. Again the inequality in gender participation in training has not changed much since 1991 (Department of Education 1991).

I am convinced that a shift in policy to focus on people, the consumers of vocational training, might bring about the relevancy in curriculum and equality in gender participation, thus fulfilling the human needs, not only in relation to basic survival needs of shelter, clothing, nutrition and good health but also for the finer essences of life such as security, love, and belonging, self-esteem and self-actualization as Maslow discovered (Berger 1988).

I call this point in life as the point of reaching an understanding, both in the spiritual and in the material. Where one is at peace and in harmony within and with the world around, so when there is conflict, for instance, no one reaches first for the axe and bows and arrows instantly, but calls on the
people to come together, and as a community find a way to resolve the crisis. At the same time the future of the next generation of children may be assured.

For a good working mind, adequate nutrition is most important even before a mother conceives, her body particularly her womb and uterus must be well nourished (Ritchie, Jean S. 1983; Berger, Kathleen Stassen 1988; Tinker, Ann et al. 1994; Earland, Jane et al. 1995). All nutrients are important for normal growth and the maintenance of good health. But for the human mind, the brain, the nutrient 'proteins' are very important for development. To ensure the brain gets the essential building materials, the mother must be supplied with food containing proteins such as meat, chicken, fish, eggs and dairy products. But what is observed among PNG mothers and children is that their diet is essentially bulky with food that provides the nutrient 'carbohydrate'. Examples of carbohydrate foods are sweet potatoes, sago, rice, bread, flour, bananas, yams and taros.

The important question to ask is: Why are protein foods lacking in the diet? Traditional diets of rural PNG have always been concentrated on carbohydrates, not only because of certain food taboos but also because other foods were often difficult to find. In the urban areas, food is costly, but protein foods as a single food item are expensive.

Why am I interested in protein cost and vocational education and training? I want to reinforce the points raised in Chapter one, that people with skills and a well nourished mind might well break the cycle of unemployment not only in the one person but the cycle in generations of families.

Overall, current policy intentions on vocational education and training are centred on government plans for national development. The needs and aspirations of the consumers of vocational training are secondary. Therefore, neither is benefiting satisfactorily from this sector of education and training.

8.1 Recommendations

One of the questions that inevitably get asked about education is about jobs. Where are the jobs? And how many? I am inclined to consider 'entrepreneurship' and the 'industrialization' of the PNG economy. McGavin and Millett (1992) have considered the unrealized potential for industrialization in PNG. There are also lessons that could be learnt from other countries on entrepreneurship, such as Pakistan beginning with a history of an agricultural economy (Altaf 1988), but while I accept that the future of vocational education – the most practical of education –
needs to be related to employment, this thesis will not provide any analysis of the probable job market. In these recommendations, then, I have decided to concentrate on policy, restructuring and teacher education.

8.1.1 Policy Statement

It is helpful to provide a guide for policy makers in the Ministry and the Department of Education, and the National Training Council under the Ministry of Labour and Employment may consider elaborating from this guide.

Vocational education and training should be open to all citizens of Papua New Guinea from age 13 and above regardless of civil status or special physical circumstance. Educational background should not be used to select trainees, but vocational guidance should be given in order to place learners in appropriate programs and courses. The programs should last for three years with one year of industrial work experience to be negotiated with industries. The program should comprise courses in trade skills, liberal or core units, and options or electives. The funding for each centre should be included in the normal, regular department or training institute annual budget. Where there are boarding centres, special provision needs to be made.

The specific objectives for vocational education and training should be to:

- prepare graduates for wage employment in any chosen trade or occupation requiring specific skills
- prepare graduates for further education
- prepare graduates for entrepreneurship

These objectives reflect the need to make the vocational training and education policy 'people centred' as a primary goal and nation building as secondary.

A system of certificates should be recognized nationally and be transferable between provinces. Teachers' qualifications must be at a diploma level or higher in specific trades and a teacher should have a certificate or diploma in teaching and education.

Following the format used in the PNG Public Service for formulating policy, the following suggested policy guide has been prepared and presented in Appendix F in 'The Seed of my Thesis'.
8.1.2 Restructure and Amalgamation

Diagram 8.1 presents a proposal to restructure the current vocational education and training system by first, amalgamating all the centres in each province under one umbrella of a 'Provincial Institute of Technology' linking all vocational centres. The centres become more or less campuses providing a range of courses. For funding purposes, uniformity in curricula standards, trade testing standards and maintaining teacher quality, the provincial institutes need to be linked to a national body, such as the current National Skills Development Authority (NSDA) under consideration. In this way the interests of the vocational sector can be effectively monitored and sustained.

As observed in the case studies, vocational centres are community based. Under the new organic laws on provincial governments, vocational training becomes the function of the provincial governments. This legitimizes the powers of provincial governments over vocational training in the provinces.

The second feature to restructuring and amalgamating is that instead of teaching many courses in one centre, there should be rationalization of the range of courses and a concentration on a few in each centre. This should lead to a rationalization of resources as well. For example, Kamaliki does not have to teach agriculture when the land is not as fertile as at Basenenka. And Basenenka does not have the facilities to teach tourism so rather than struggling to teach tourism with limited resources; Maria Hilf should be left to run the course.

It is also recommended that libraries and counselling services be part of the vocational system.
Diagram 8.1: A Suggested Structure for the Amalgamation and Rationalization of Vocational Centres

Core Units
- study skills (including library skills)
- literacy & numeracy skills
- civics (citizenship) - rights and responsibilities e.g. traffic courtesies
- business entrepreneurship & management
- religious instruction

Options
- recreation and leisure
- driving

8.1.3 The Curriculum

It is imperative that a national vocational education and training curricula be written. There are more common local conditions than not. And the way to get around the differences in localities would be to write national curricula for all courses, and centres would only get sent the ones appropriate to those centres. At the same time, there is a need to consider both vertical and horizontal curriculum development designs.
'Vertical' is used in the sense to deepen foundation knowledge, the cognitive aspects of subject matter, and the content of topics and issues. For example, from the basics and simple to the difficult and complex ideas and theories, and similarly with skills as the students progress through from year one to two or three. This may also lead to suggesting that the terminal point that prevented vocational graduates from proceeding with further education be made flexible. It would also mean a clear link from vocational training centres or institutions to the technical colleges and other professional training institutions, be they public or private. This will contribute to more of success of certification of tradesmen and tradeswomen through the trade testing system.

'Horizontal' is used in the sense of broadening the curriculum base to give wider educational experiences and provide more occupational choices. For example, the range of technical and trade courses should be enlarged to include courses such as forestry and marine related courses, add-on agriculture related courses such as food processing and other agricultural manufacturing aspects, and properly established tourism and hospitality courses; and hair dressing and tailoring apprenticeships should be set up in the same way as other trade skills. These are some of the key areas where PNG has the needs and resources to consider as relevant and appropriate. This takes into consideration the changing needs of society in the face of socio-economic and political change. Moreover, it takes into account the need for jobs, job creation and employment. There is a need to expand the job options and employment and entrepreneurship opportunities. For example, the following course options should be added to the curriculum, particularly for short term courses:

- Fresh water fish farming, e.g. trout farming
- Hair dressing
- Watch/shoe repairs
- Driving vehicles
- Salesmanship
- Forestry/timber & chainsaw
- Pottery
- Seamanship (local shipping)
- Leather craft
- Bilum making
- Computer technology
- Fashion design and tailoring
- Weaving, e.g. baskets, mats & rugs
- Jewelry/mine byproducts
- Marine foods
- Catering/hospitality
- Tourism
- Entrepreneurship
- Horticulture
- Landscaping
- Civil etiquette
- Leisure and recreation
- Music & painting
- Literacy/numeracy
- Writing skills
- Project proposals
Other areas of curricula plan and design should consider the inclusion of liberal studies or ‘core units’ and ‘options’ or electives as suggested in the diagram 8.1. Furthermore, open and distance modes of training through ‘projects’ should be considered as an option for those unable to attend on-site training (Henry 1994). This should greatly assist those mature-age, married and others with babies even - the former-rascals.

A suggested example of a tourism and hospitality curriculum is provided in Appendix F: The Seed of my Thesis.

8.1.4 Vocational Teacher Education

Policy on vocational teacher education ought to be established which should take into account entry requirements, award level, type and design of curricula, inspections, students' assessments and in-service requirements. Again as in 8.1.1 above, some policy guideline are given.

Opportunities for those wanting to be vocational centre teachers should be offered to candidates who had completed Grade 12 (matriculation) or equivalent. The duration of the program should be for three years with six months internship or industry work experience in the second year, and twelve weeks of classroom teaching experience in the senior year. A competency-based curricula model is recommended. The curriculum should include the following components:

a.) A Specialist trade component

b.) Educational studies including educational principles or methodology, educational psychology, sociology and philosophy

   c.) Industrial work and classroom teaching experience

A teacher-trainee appraisal is recommended during the duration of the training so that those considered unsuitable to be teachers should be redirected into other fields.
At the same time, the location of a vocational teacher training institute should be considered. The University of Goroka would be an ideal place. However, the DoVET course has begun at the PNGEI and rather than uprooting the establishment, should be fully supported. DoVET course should be resourced, not only with finance but also with quality teaching staff, facilities, equipment and materials. Moreover, the Port Moresby City as the centre of commerce and industry should be in a position to offer and support industry-based training and internships.

For the long term, the Department of Education may have to let go, and allow the PNGEI to take full control of the teaching and administration of the DoVET course. This would free DOE to concentrate more on the vocational centres – to support and sustain the growth and development of the vocational training sector.

In closing, I repeat a portion of a speech on the future of Papua New Guinea given by Paul Hasluck in May 1951\(^\text{17}\) after he was appointed Minister for External Territories, at the Sir William MacGregor Club at the Australian School of the Pacific Administration:

The question we, therefore ask ourselves is, “What will happen if we succeed in what we are trying to do?” If we succeed, we will see, on the one hand, an increasing native population. Health measures will reduce infantile mortality and the toll of disease, and better nutrition will give a healthier population. We will see a better educated native people, a more politically conscious and politically active population who, very gradually, over a number of generations, will take an increasing interest both in running their own enterprises and in taking a share in their own government. If we succeed in what we are trying to do, we may have in New Guinea as many as 10,000,000 active, healthy, enterprising people with ideas of their own about the world. We will also see a transformation of Territory production and the economic life of the country–simple subsistence varied by exports; new products, new methods, new industries. There are risks in such changes but, on the whole there will be material benefit. …” (Jinks, Biskup and Nelson 1973:347; Hasluck 1976:69; Porter 1993:105).

In the same way, I posed this question, “What will happen if we succeed in what we are trying to do for vocational education and training in Papua New Guinea?”

\(^{17}\) Hasluck’s (1976) own autobiography had the date of the address at Sir William MacGregor Club as the 20 November 1951.
I foresee all of the above and more with qualified teachers, people in authority speaking the same
language about priorities, vocational policy, and people-centred vocational training policy, a more
educated and skilled politically conscious population to fit not only back in the village, but all of
society. At the same time, through international relations – trade, education and training and
electronic links - the global divide will diminish, and there will be a growing consciousness of our
place and responsibility in the international arena.

| EPISODE |

My interest and belief in vocational education and training has grown over the period of writing this
thesis. As a result, I am convinced that it is desirable to plan to establish a vocational type school
with a difference. The project school will be called, ‘Kabi Taumana’. The location will be the
Samarai District Township, my hometown in Milne Bay Province, Papua New Guinea.

Land has been secured for this purpose. Kabi Taumana would offer a two-year certificate course in
tourism and hospitality for the local market around the Samarai area. It will be a residential private
school starting with about 20 trainees and 4 staff (director, teacher, administrator and
janitor/gardener)

Financing has been sought through the Wedama Development Association Ltd in Milne Bay Province. Pending finance becoming available, the project should start in year 2002.

The tourism and hospitality curriculum guide in Appendix F would be an invaluable help to begin
the Kabi Taumana training year.

18 ‘Kabi Taumana’ in the Saliba language means the ‘way to entertain and shower hospitality on guests and
visitors’.
Bibliography


233


Appendix A: The Questionnaire
Survey on Vocational Training in PNG

A: About the Centre: (Speak to Manager & Deputy Manager)

1. Name of the Vocational Training Centre: ..................................................

2. The location of the training centre: ..............................................................

3. When the training centre started? ............................................................... 

4. What was done then?
   - Building?....................................................................................................
   - Courses?....................................................................................................
   - Staffing?....................................................................................................
   - Curriculum?................................................................................................

5. What buildings or facilities have the centre? (e.g. workshop, classrooms, offices, staff housing).

6. What do the buildings look (appearance) like in terms of maintenance and repairs?
   (Observe local opinion about current buildings for present and future needs) .........

7. What has changed since the training centre began?
   - Buildings?..................................................................................................
   - Courses? ....................................................................................................
   - Staffing? ...................................................................................................
   - Curriculum? ............................................................................................
   - Student Population? .............................................................................

8. What is the total income that the centre has to spend in a year? (not wages of staff)
   K..........................

9. Where does this income come from?
   Fees K.............. Government Funds K.......... Other K...............

10. How is the budget broken down?
    - What percentage goes to: capital works?.............................................
    - curriculum?............................................
    - students accommodation? .......... equipment? ........

11. Is funding adequate? If not, what impact does the current funding arrangement have on the administration and
    service delivery of centre? ............................................................... 

12. What sort of budget has the Centre? (e.g. request sample budget allocations) .......

13. What are the Centre’s main goals? e.g. to train for employment in town or return to the village?
    a. Who identifies these goals?
       - Centre Admin/Staff?............... - Government funding body?.............
    b. What is considered a successful outcome for the student of vocational
       training?...................................................
    c. What type of students do the centre wish to attract? ...........................
    d. Does the centre actively try to recruit students?...............................
    e. Does the centre try to advertise its courses in some way? If so, in what ways?

14. Does the centre put out any published statement about courses or its
    mission/goals?..............

B. About the Staff: (Speak to Manager & Staff)

1. How many staff members altogether? ....................................................... 

2. How many are males?................................. and females?....................

3. What is the criterion for staff selection? (how are staff selected?) ............
   a. If there is a staff vacancy, do many apply? (is it easy to get staff?) .......

4. What nationality are the teachers? ............................................................

5. What age group are they? e.g. how many are in the 20-25 year olds....; 26-30 year olds....; 31-35 year olds ...; 36-40
   year olds ...; 40-45 year olds...; 46-50 year olds ...; 51-55 year olds....; other (specify)...........

6. What are the current required Staff qualifications?
   a. Do all teachers meet these qualifications?...........................................

7. State awards and how many? (e.g. How many with certificates in Primary School Teaching or Home Economics or
   Agriculture Teaching or other?)............................................................... 

8. How many years of teaching experience in vocational training have the teachers had? (what promotional opportunities
   exist), [record for all staff]

9. What facilities and programs are available for vocational teacher training? (Check with Port Moresby In-Service
   College and Goroka University).................................................................

10. What in-service training programs are available for the teachers?..............
11. Why did the teachers choose a career path in vocational training? (speak to as many teachers as possible)...

12. Are there security threats at the Centre? If so:
   a. How many times has the centre been broken into in the last 6 months? ....
   b. How many teachers have been attacked in the last 6 months?.............
   c. How many students have been attacked in the last 6 years? ..............
   d. What has been done to reduce the security problems? 

13. Where are the teachers accommodated? (e.g. at the centre or outside) ....

C. About the Courses Taught (Curriculum): (Speak to the Centre Manager & D/Manager)
1. What courses are taught: a. In the past?......... b. Currently being taught? ....
2. Are all courses open to both males and females? 

3. Why are these particular courses taught? (what are benefits?)
   a. What are the most popular courses?
   b. What subjects are taught in the course?
   c. Which courses lead to what employment?

4. How long is the course? 

5. How much theory is taught? 

6. How practical is the course?
   a. What is the emphasis in the curriculum – i.e. a mixture of theoretical and practical knowledge....

7. What practical work experience do the students do during the period of their training? 

8. How much is the tuition fee? K ............ How much is the boarding fee? K............ 

9. Which is your home province? 

10. What community links are there?
   a. What are the aims of establishing community links?
   b. How and by whom are community links established?

11. How relevant is the course to the needs of the trainees in terms of employment and business enterprise?

12. Apart from studying the courses, in what ways are the trainees being prepared to resettle back in their villages and set up a business enterprise.

13. How is the Centre structured? (e.g. Agarabi Centre 1974) .................
    (Observe differences between co-ed and non co-ed centres and between rural and urban centres)

D. About the Students: (Speak to both gender trainees, at least 10 in each centre, also to Manager and Staff).
1. Why did you choose to attend this vocational training centre? 

2. Can you read? Yes ( ) No ( )

3. Can you write? Yes ( ) No ( )

4. How could vocational training be improved? 
   (Observe personal and perceived family expectations).

E. About Gender Training (Speak to female students – combine with point D. 4 e.g. females & male trainees)
1. How safe is it to travel to and from the Centre, and study at the centre? ......

2. Can you read? Yes ( ) No ( )

3. Can you write? Yes ( ) No ( )

4. In what ways is the vocational training course relevant to your employment needs?

5. Is there a gender division of trades such as those occupied by technical trades and non-technical such as secretarial, clerical and home economics? If so, how is this division experienced? E.g. In title/designation? in promotion? .......

Other? .......

240
a. Can men and women apply for the same level of positions? .........................
6. In terms of security, how do the women keep safe? What strategies are used? ...
7. Do you have any children? If so, who looks after them while you are training? ...
8. Given the current village living conditions, how would you want the village to change?
   a. Abandon traditional cultural practices ......................................................
   b. Eat more canned foods .............................................................................
   c. Build a permanent house .........................................................................
   d. Build water tanks and good sanitation ...................................................
   e. Wear European clothing ...........................................................................
   f. Trained nurse/medical orderly ...................................................................
   g. Develop income generating activities.......................................................
9. What are the different expectations of females to the male counterpart and vice versa? e.g. are women still expected to make gardens? .........................................................
10. What are some of the gender issues at the centre? ............................................
    a. Is there preference given to women for employment after graduation? .......
11. Why is it that vocational training is given such a low status? .........................
12. What is your vision for the future in terms of your relationship with your village and a marriage preference 

F. About Parents' Views/Expectations (speak to parents-via students interviewed)
1. What is your occupation? (parents background) ...............................................
2. How much money do you pay for your daughter/son's training? K ..............
3. What are some of the things (books, equipment) you pay for, and how much extra money have you had to pay?
   K........................................ Additional items ........................................
4. What is your daughter/son training for? ...........................................................
5. In what ways do you help in your daughter/son's training (apart from finances)?
6. What would you like your daughter/son to do? (expectation) .........................
7. Why do you send or not send your daughter to vocational training? ..............
8. Why do you send or not send your son to vocational training? ....................
9. What can you suggest to help improve vocational training? .........................
10. What kind of job would you like your daughter/son to do? ............................

G. About Employment (Speak to graduate employees).
1. Did your training help you find job? If so, in what ways? ............................
2. What trade skills are appropriate for the kind of work you do? ......................
3. If you had a child, would you send her/him to vocational training? ...............  
4. If you had the choice to return to the rural areas, what would you do with the trade skills you have learnt at the vocational centre? .................................
5. With the training you have received, how would you propose to set up and run a business enterprise? .................................................................

H. Female Employee (work history)
Name: ....................................................... 2. Home Province .........................
3. Marital Status (i) married (ii) single (iii) divorced (iv) seprated ....................
4. Number of dependent children .....................................................................
5. School Grade left at: ...................................................................................
6. What work do you do to earn a living? .......................................................  
7. Have you had any form of training? Yes () No ()  
   If you answered "yes" what skills have helped you in your work? If you answered "No" what skills would you wish you had learnt? .................................................................
8. How much money do you earn each fortnight? K .................................
9. What kind of things do you buy with your money? (do you make a list of things to buy) ..................................................................................................................
10. What are the biggest problems encountered when looking for a job ...............
11. How do you search for a job? (answer advertisement in writing, door knocking, other etc.) .................................................................
12. If you have young children, what child care arrangements do you have? ...
13. What rights do you know you have as a worker? (e.g. work conditions) .......
Appendix B: Vocational Training - Chronological Data 1960 to 1976

Before 1960 there was no documented record of vocational training though both the administration and the missions at the village community level provided similar activities.

<table>
<thead>
<tr>
<th>Period (Years)</th>
<th>Admin</th>
<th>Mission</th>
<th>Admission</th>
<th>Duration</th>
<th>Enrolment</th>
<th>Course Offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/7/59 to 30/6/60</td>
<td>2 CTS</td>
<td>1 JTS</td>
<td>Standard 5</td>
<td>1-2 years</td>
<td>Data not available.</td>
<td>Boys: CIS-technical skills related to local economic development. JTS-woodwork trades, roof plumbing, and simple concrete work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not entered High School.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/60 to 30/6/61</td>
<td>3 CTS</td>
<td>1 CTS</td>
<td>Standard 5</td>
<td>2 years</td>
<td>Data not available.</td>
<td>Same as above.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not entered high school</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/61 to 30/6/62</td>
<td>4 CTS</td>
<td>5 JTS</td>
<td>Standard 5</td>
<td>1-2 years</td>
<td>Data not available</td>
<td>Boys: CIS-technical skills to improve village conditions. JTS-brick making and laying, carpentry and building, plumbing, painting, elementary mechanics, auto servicing, driving and boat building.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not entered high school</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/62 to 30/6/63</td>
<td>3 CTS</td>
<td>7 JTS</td>
<td>Standard 5</td>
<td>1-2 years</td>
<td>Data not available.</td>
<td>Boys: CIS-skills to improve living conditions. JTS-as for 1961-62</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not entered high school</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/63 to 30/6/64</td>
<td>12 for both CTS &amp; JTS</td>
<td>2 JTS</td>
<td>Standard 5</td>
<td>2 years</td>
<td>349 Admin Mission - data not avail</td>
<td>Boys: JTS-as for 1962-63. CIS-as above</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Not entered high school</td>
<td></td>
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<td>20 for both CTS &amp; JTS</td>
<td>Data not available</td>
<td>Standard 5</td>
<td>JTS-2 years</td>
<td>693 Admin Mission - data not avail</td>
<td>Boys: JTS-same as above. CIS-as above.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not entered high school</td>
<td>2 months to 1-2 years. 12 months regular</td>
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<td></td>
</tr>
<tr>
<td>1/7/65 to 30/6/66</td>
<td>22 for both CTS &amp; JTS</td>
<td>Data not available</td>
<td>Standard 5 or 6</td>
<td>JTS-2 years</td>
<td>1,153 Admin Mission - data not avail</td>
<td>Boys: JTS-brickmaking &amp; laying, carpentry &amp; building, painting, elementary mechanics &amp; boat building. CIS-technical skills to improve living conditions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not entered high school</td>
<td>CTS-2 months to 1 year. 6 months regular</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/66</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Standard 5 or 6</td>
<td>1-2 years</td>
<td></td>
<td>Boys: -brickmaking &amp; laying, carpentry &amp; joinery</td>
</tr>
<tr>
<td>Date Range</td>
<td>Boys</td>
<td>Girls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/67 to 30/6/68</td>
<td>Data not available</td>
<td>Data not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/68 to 30/6/69</td>
<td>&lt; 50</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/69 to 30/6/70</td>
<td>47</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/70 to 30/6/71</td>
<td>50</td>
<td>Data not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/71 to 30/6/72</td>
<td>48</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/72 to 30/6/73</td>
<td>53</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/73 to 30/6/74</td>
<td>Data not available</td>
<td>Data not available</td>
<td></td>
<td></td>
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<td>1/7/74 to 30/6/75</td>
<td>Data not available</td>
<td>Data not available</td>
<td></td>
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</tr>
</tbody>
</table>

- **1/7/67 to 30/6/67** 30/6/67
- **Not entered high school**
- **880 - All vocational centres**
- **Boys**: Same as for 1966-67
- **Courses offered same as 1967-68 with emphasis for relevance to communities.**
- **Girls**: -Skills to become better wives & mothers.
  -Skills in traditional arts & crafts.

- **1/7/68 to 30/6/68**< 50
- **1-2 years**
- **1,046 Admin Mission - data not avail**
  -Courses offered same as 1967-68 with emphasis for relevance to communities.
  -Skills to become better wives & mothers.
  -Skills in traditional arts & crafts.

- **1/7/69 to 30/6/69** 47
- **Standard 6**
- **2,550 Admin 757 Mission**
  -Cooking, nutrition, baby care, community studies, traditional arts & crafts.
  -Urban Girls: Skills to get paid employment.

- **1/7/70 to 30/6/70** 50
- **standard 6** 1-2 years
- **3,940 Both Admin & Mission**
  -Skills to assist in elevating living standards & to gain paid employment.

- **1/7/71 to 30/6/71** 48
- **Standard 6** 1-2 years
- **3,244 Admin 1,225 Mission**
  -Boys & Girls: Same courses as for 1970-71
  -Same as 1968-69 plus driving & trade store management.
  -Part time courses on management, supervision, institutional cooking, storemanship, commerce & vehicle maintenance.

- **1/7/72 to 30/6/72** 53
- **Standard 6** 1-2 years
- **4,000 All agencies**
  -Boys & Girls: Courses remain same with addition of driving, outboard motor & vehicle maintenance classes.
Appendix C: SUPPORTING MATERIALS

Appendix C 4.1: Aims of the Basenenka Vocational centre

(Taken from the handbook for Vocational Centre Managers and Manageresses)

1. To provide the form of education that will prepare the student to return to his/her home environment and contribute to its development.
2. To train those school leavers to become self-reliant by becoming self-employed as the final result of their training in the centre.
3. To teach Grade 6 and 8 school leavers semi-skilled and skilled vocations that would be applied in their own home villages.
4. Practical self-help skills which may come in handy when they enter the workforce or return to their villages.
5. Develop an interest in the above mentioned aims as that will motivate them to learn and acquire additional skills through the course.

Appendix C 4.2: Duty Statement

(For Teacher - Mr Jackson McGovafa of Besenenka)

1. A senior teacher of the centre.
2. Assist the manageress to supervise and administer the overall operations of the centre.
3. Perform teaching duties related to allocated trade skills, i.e. Agriculture.
4. Be responsible for the agriculture department.
5. Undertake financial responsibilities of the trade departments.
6. Keep record of students' assessments.
7. Initiate ways of generating income for the centre.
8. Carry out extension program.
9. Keep records of sectional tools/equipment and do quarterly stock takes.
10. Carry out other related duties, which is in line with the centre's goal and objectives.
11. Attend to disciplinary matters.
12. Assist in organizing sports/entertainment within the school and outside if necessary.
14. Secretary for the Board of Management.

Appendix C 4.3: Basenenka Budget for 1998

(There are no explanatory notes)

<table>
<thead>
<tr>
<th>Income Sources</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>School subsidy</td>
<td>K43,000.00</td>
</tr>
<tr>
<td>Project fees</td>
<td>K13,160.00</td>
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<tr>
<td>1997 School fees outstanding</td>
<td>K 1,450.00</td>
</tr>
<tr>
<td>Income generating</td>
<td>K 2,000.00</td>
</tr>
<tr>
<td>Provincial Government grants (?)</td>
<td>K ?</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>K59,610.00</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rations</td>
<td>K20,000.00</td>
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<tr>
<td>Stationery</td>
<td>K 800.00</td>
</tr>
<tr>
<td>Electricity</td>
<td>K 500.00</td>
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<tr>
<td>Telephone</td>
<td>K 500.00</td>
</tr>
<tr>
<td>Teaching aids (all 5 trades)</td>
<td>K 4,000.00</td>
</tr>
<tr>
<td>Petty cash</td>
<td>K 2,000.00</td>
</tr>
<tr>
<td>Vehicle/transport</td>
<td>K 2,000.00</td>
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<tr>
<td>Office equipment/supplies</td>
<td>K 1,000.00</td>
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<tr>
<td>Maintenance</td>
<td>K 1,000.00</td>
</tr>
<tr>
<td>Classrooms (new)</td>
<td>K 1,000.00</td>
</tr>
<tr>
<td>Item</td>
<td>Cost</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Staff house (new)</td>
<td>K 9,000.00</td>
</tr>
<tr>
<td>Students Dining Hall</td>
<td>K13,000.00</td>
</tr>
<tr>
<td>Sports equipment</td>
<td>K 500.00</td>
</tr>
<tr>
<td>Dormitory</td>
<td>K 2,000.00</td>
</tr>
<tr>
<td>Ancillary staff</td>
<td>K 2,000.00</td>
</tr>
</tbody>
</table>

**TOTAL = K59,300.00**

**Note:**
K160,000 allocated to Basenenka in the 1998 Eastern Highlands Provincial budget is not reflected in this budget. The news of this allocation was made known to the Centre in 1998 from the Ministry of Education in Port Moresby.

**Appendix C 4.4: Proposed Projects - Basenenka**
(This was addressed to the Researcher, undated but presented in May 1998).

This Centre was established in 1983 and it was known as Village Development Centre. A year later it was converted into Vocational Centre. Although this is one of those very old schools, all infrastructure required are not in place due to insufficient funds each year. We would like to bring to your attention of some of the Projects, Equipment and Tools that the Centre needs badly but cannot be afforded.

1. **Dining Hall** - The students cook and eat in an open space since the establishment of this centre. We have just started the foundation of this project.
2. **Staff Houses** - The centre has only 8 houses and there's 10 teachers. We need 2 more staff accommodation. The existing houses are just the bare houses without the basic furniture, stove, etc required.
3. **Boys Dormitory** - The current temporary dormitory accommodates 99 boys and the rooms are overcrowded and unhygienic. We need to build a new decent dormitory.
4. **Administration Block** - The present room accommodates small number of it teachers. A separate admin block is required.
5. **Water Supply** - This is a very big problem. We already have a WELL but we need a storage tank, electric pump, taps, p.v.c. pipes, etc to have a complete water supply to all the buildings and houses.
6. **Fencing School Boundary** - Break and enter becomes more common every year at this school. We desperately need fencing around the school boundary to safe guard the state property and to ensure the safety of teachers and students.

**Tools and Equipment Required**
1. **Mechanical Department** - Piston ring compressor, torc wrench, value compressor
2. **Home Economics Department** - Gas stove x 2, Cashier (register) x 1, bolt of material (fabric) 1, kerosene primus x 4, sewing equipment.
3. **Plumbing Department** - Pipe bender, grinder, 1 set thread & dice.
4. **Carpentry Department** - Over head planner, press drill, table saw, concrete mixer.
5. **Agriculture Department** - Classroom, equipment, tractor.
6. **Administration** - Lawn mower, storage cupboard, refrigerator, 20 chairs.

Thank you for your attention.

Carolyn Yabai
Manageress

**Appendix C 4.5: Maria Hilf Vocational Centre - Proposed Courses**

1. **Computer Training**
2. **Typing (Office Procedure)**
3. **Tailoring**
4. **Catering**
5. **Hotel Management**
6. **Hospitality/Tourism**
7. **Handicraft**
8. **Small Scale Business Management (Cash Register)**
9. **Hair Salon**
10. **Beauty Therapy**
11. **Basic English and Maths**
12. **Expressive Arts**
13. **Other - Family Living**
   - **Health and Hygiene**
Appendix C 4.6 Entry Test - Malahang

Addition
1.) 5 + 10 + = 115 = ................................... 2.) K13.50 + 09 = ......................................
Subtraction
3.) 61 - 29 = ........................................... 4.) 150 - 18 = ...........................................
Multiplication
5.) 5 x 7 = ............................................... 6.) 43 x 10 = ............................................
Division
7.) 36 6 = ............................................. 8.) 50 10 = .............................................

Multiple Choice
9.) Another way to write 100 cm is:
   A. 100.0 m   B. 0.100 m   C. 1m

10.) Work out the area of this shape

Area = Length x Width = ..............................................

Appendix D: List of Vocational Centres

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APPENDIX E: PLATES OF PHOTOGRAPHS

Plate 4.1 Badili: an old boat shed used as workshop (original building)

Plate 4.2 Badili: girls showing completed sewing craft

Plate 4.3 Badili: crowded staff house
Plate 4.4 Badili: reclaimed water front - environmentally unhealthy.

Plate 4.5 Koki: main entrance gate

Plate 4.6 Koki: stairs to find main office
Plate 4.7 Koki: garments on display

Plate 4.8 Koki: matching colours and patterns - missed match!

Plate 4.9 Morata: Lions International project
Plate 4.10 Morata: morning assembly

Plate 4.11 Morata: teacher's house over panel beating workshop

Plate 4.12 Morata: mechanics workshop
Plate 4.13 Limana: teachers at morning tea

Plate 4.14 Limana: Students morning clean up

Plate 4.15 Limana: outdoor students' locker - hanging bilums
Plate 4.16 Limana: "I want to learn computer, but I want to do sewing too"

Plate 4.17 St Therese: cookery lesson

Plate 4.18 St Therese: morning clean up session
Plate 4.19 Basenenka: happy crowd of trainees

Plate 4.20 Basenenka: mechanics workshop - one engine main resource

Plate 4.21 Basenenka: Male tin-shed dormitory
Plate 4.22 Basenenka: crowded bed in male dormitory
(\textit{em i paspas} - it is too crowded)

Plate 4.23 Basenenka: female tin-shed dormitory

Plate 4.24 Basenenka: teacher's house
Plate 4.25 Basenenka: poultry lacking security

Plate 4.26 Basenenka: female student dressed for singsing

Plate 4.27 Maria Hilf: all female teachers
Plate 4.28 Maria Hilf: female trainees

Plate 4.29 Maria Hilf: inside female dormitory

Plate 4.30 Maria Hilf: students' kitchen-copper boilers for rice/kaukau, meat/fish and tea
Plate 4.31 Maria Hilf: teacher's house with all facilities

Plate 4.32 Maria Hilf: one of two security guards

Plate 4.33 Kamaliki vocational centre
Plate 4.34 Kamaliki: students' kitchen - rice & fish for dinner

Plate 4.35 Kamaliki: tools donated by GTZ

Plate 4.36 Kamaliki: female students at the front of home economics building
Plate 4.37 Kamaliki: inside female dormitory - bare, unpainted walls dressed with pretty bilums

Plate 4.38 Kamaliki: inside male dormitory - crowded rooms divided with clothing lines

Plate 5.1 St Joseph's vocational centre.
Plate 5.2 St Joseph's: students' kitchen - fuelled by wood

Plate 5.3 Malahang: transforming - building a new mechanics workshop

Plate 5.4 Malahang: transforming - a new teacher's house
Plate 5.5 Komperi: female students

Plate 5.6 Komperi: illiterate student practising to read

Plate 5.7 Komperi: display of handicraft
Plate 5.8 Awande vocational centre: teacher's house overgrown with grass

Plate 5.9 Awande: students' damaged kitchen lying lifeless

Plate 6.1 Vocational Home Economics Teacher Training Centre, Port Moresby Inservice College (Now PNG Education Institute)
Appendix F: The Seed of my Thesis
Appendix F: THE SEED OF MY THESIS

Introduction

Appendix F: ‘The Seed of my Thesis’ contains suggestions for a policy for vocational training, a curriculum guide for teaching tourism and hospitality at the vocational training level, and a guide to national competency standards for Papua New Guinea.

During the years of my thesis writing, I often wondered what would become of the thesis after it was submitted. The seed that had been planted in my thoughts was curriculum development. But over the course of time I came to appreciate the importance of policy and its role and function, and position of power that policy occupies in governing. For this reason, I felt I ought to be pragmatic about policy for vocational training. And as reflected in the thesis that policy becomes the guiding light for government action. I decided then to use the results of the thesis to assist in policy formulations and implementation procedures. Hence, the inclusion of policy as the key to the ‘Seed’ proposals. The ideas for policy and curriculum were already in place at the completion of the first draft of the thesis but needed to be set out in detail.

Although I had some thoughts on standards, it was an area not pursued extensively in the field research. On visits made to the Office of the Apprenticeship Board in the Department of Labour and Employment, the National Training Council and GTZ in 1996 I was given some information on competency standards. However, it was rather a new concept to me and did not quite comprehend its significance at the time. I picked up some more material on the subject in 1998, my second and final visit for my field work. I liked the idea but was not sure how to incorporate it into policy and curriculum, until 1999 when I was speaking with Didiya Bani of the PNG Investment Promotion Authority about international standards in the hotel industry. This led me to the realization that PNG as a nation, over the last twenty-five years, has had no common standard guide of service to the tourism industry, let alone national standards for customer service.

1.1 Rationale

I am convinced that the three items: policy, standards and curriculum should be combined and presented in a way that the thesis may have a multiplying effect in a practical way.

The rationale for the Seed is to establish:

1. a practical guide to policy makers, standards developers and curriculum written for the vocational training sector
2. the seriousness of the need for vocational training in terms of these three components.

Whether or not the Department of Education agrees and accepts the recommendations is secondary to the intentions of the author. The primary objective is to document these thoughts in a scholarly fashion. I plan to establish a school of tourism and hospitality as indicated in chapter eight of the thesis where I would put the curriculum into practice. However, should anyone find the Seed useful, then I hope they can adapt it for their specific needs.
Appendix F1: Policy Statement

The vocational training system is for all Papua New Guineans who want to make a change in their living standards and find fulfillment in their chosen occupation or vocation. The need and/or desire to change requires that they have access to training in vocational training institution provided by public, private and informal sector of the economy and recognized by the National Training Council and the Department of Education.

The graduands of vocational training have the liberty to choose their career-path with the guidance and counselling of the institution. They are free to live and work anywhere in PNG where they can best provide for themselves in order to serve their country.

Vocational institutions are accessible community based centres and they are administered by Local Level Governments with the new National Skills Development Authority as the overall overseer.

1. Rationale
1.1 Vocational training occupies a unique position in the economy providing skills for employment and entrepreneurship
1.2 The catchment area in the population is the majority young active and energetic people that can be utilized for greater rewards for the nation
1.3 The catchment area in the social strata is that majority with a low low income or no cash income at all. There is a need to totally reduce dependency through this policy
1.4 Current practices do not favour access, quality instruction, a conducive learning environment, and the liberty to choose a career path anywhere in PNG

2. Scope
2.1 Beneficiaries
2.1.1 Anyone requiring training for employment and entrepreneurship
2.1.2 Anyone requiring life skills including civics and recreational pursuits
2.2 Program
2.2.1 Short-term i.e. weekend training workshops, seminars of one to six weeks training sessions
2.2.2 Long-term i.e. certificates in trade and professional courses
2.2.3 Distance by correspondence i.e. especially through selected projects
2.2.4 Action-learning by those who cannot get away from current jobs i.e. fits category 2.2.3 above
2.2.5 Industrial internships i.e. on-the-job work experience or apprenticeships
2.3 Admission
2.3.1 No restriction on educational background
2.3.2 Handicapped are encouraged and welcome to vocational training

3. Authority
3.1 The vocational training policy would come under the authority of the new National Skills Development Authority when approved by the National Executive Council

4. Objectives
4.1 Prepare graduates for wage employment in any chosen trade or occupation
4.2 Prepare graduates for further education and training in their chosen field
4.3 Prepare graduates for entrepreneurship

5. Policy Guidelines

5.1 All vocational training providers need to make annual budget preparations and submit to appropriate authorities or raise own revenue
5.2 Financial accounts are the property of the institutes and must be audited and statements must be presented to Boards of Management on regular basis
5.3 National Competency Standards need to be consulted and incorporated into institute curricula
5.4 National Competency Based Curricula to be used as a guide to develop a local and community based syllabus
5.5 Disadvantaged students to be considered for financial assistance where essential
5.6 Course fees must be affordable
5.7 Awards of certificates to be nationally recognized
5.8 Vocational graduates can feed back into secondary schools system or technical and business colleges
5.9 Entry tests may be used for class or trade placing but not for admission
5.10 English, Motu, Tok Pisin and local vernaculars may be used in the instruction of students

6. Implementation

6.1 Instruction on training site and distance, action mode of learning by qualified teachers with teaching and trade certificates and diplomas
6.2 Internship supervision and reporting on candidates provided by experienced senior officers or managers

7. Monitoring

7.1 Policy monitoring will be undertaken by vocational inspectorate when doing normal rounds of inspections
7.2 Training providers and industry in the normal execution of their duties to provide support to the inspectorate

8. Reporting and Reviewing

8.1 Public hearings will need to be conducted where beneficiaries of the policy give their views at the provincial and local governments levels
8.2 Inspectors and training providers, and the industry will come together to report and review the policy after the first year of implementation

9. Amendments

9.1 Amendments are a necessary requirement of this policy to ensure it is real instrument it a real instrument to make vocational training effective and the best available option for the majority of Papua New Guineans.
Appendix F2: PNG National Competency Standards for Eco-Tourism and Hospitality

Acknowledgement

I convey my gratitude and appreciation to Didiya Bani, Manager for National Standards, for initial discussions held with her about International Standards; and especially the awareness that currently Papua New Guinea (PNG) has no documented national standards for the services area. I also thank the Office of PNG/German Technical Corporation on the Promotion of Vocational Training (GTZ) in this country for this work to have been undertaken within the scheme. Particular mention is made for the initial discussion with Horst Hansel, Principal Advisor for GTZ Office, on standards for vocational training curricula. This work has also benefited from the use of the Carpentry Construction Draft Competency Standards (1998) as a guide, for its clarity and ease of following.

Rona N. Nadile
November 1999

1. Introduction

In the absence of apprenticeship training in the service area, these competency standards have been designed and documented for vocational training and trade testing for people working in the services industry within Papua New Guinea. These standards form the basis for the minimum required level of competence to gain the *(Certificate in Tourism and Hospitality/Home Economics/Professional Housekeeping or other).

The procedure for writing competency standards requires the ‘Standards’ written before the curriculum. In this instance however, I had written the curriculum guide first and found that it was helpful to do both concurrently.

* Which ever is appropriate?

1.1 Trade Testing

The competency standards will form the basis for the minimum required level of competence for a person who undertakes the service trade test to gain the services trade certificate. From these competency standards, knowledge, skills and attitude tests will be developed. Candidates will be certified to either level one (basic) or two (intermediate or semi-skilled) or three (advanced or skilled) depending on the level of competence attained.

1.2 Expected Outcomes for Service Training

Apart from developing the broad based skills required for the service industry, the competency standards are expected to bring about three important outcomes:

1.2.1 Character: To cause a change in the individual towards a positive outlook on life, to encourage the growth of a self-confident and self-supportive character who can cope with present and future trends in the social, cultural, spiritual, environments, political and economic, and the technology and work situations inherent within a changing industry and society as a whole.

This expected outcome should be supported by:

a. Providing a ‘trainee centred’ environment where trainees will be cared for and assisted in a way that they may experience freedom and responsibility for their own and others learning.
b. Providing a relevant curriculum and appropriate resources such as infrastructure, equipment and materials; and library sources where trainees may have easy access to build their knowledge base and develop their skills.

c. Encouraging an individualized life-long learning approach yet be corporative and sharing in group-work learning situations.

1.2.2 Entrepreneurship: To develop entrepreneurial skills to competent levels where individuals can make informed decisions and take calculated risks.

This expected outcome should be supported by:

a. Providing opportunities for experiential learning both internal and external to the training centres. For example, by producing products such as baked bread and providing services such as accommodating guests that involve cash transactions.

b. Creating in-house market and marketing strategies to assist the trainees to develop decision making skills and experiment in taking risks. For example, establish a regular market day either once a month or once a term when trainees may practice their entrepreneurial skills.

c. Assisting and encouraging effective reading and research into relevant information through a variety of accessible means such as local libraries, newspapers, journals and interviews with local people. Ideally this should include access to websites and other on-line and screen-based learning facilities.

d. Encouraging participation at local festivals, visits to local business establishments and attendance at relevant seminars and workshops.

1.2.3 Employment: To integrate training with employment by supplying the employment sector with adequately skilled service providers.

This expected outcome could be supported by:

a. Providing the trainees ... as stated in point 1.2.1 b above.

b. Providing opportunities for 'hands-on' training situations. For example, catering for business conferences or Church or women's activities.

c. Establishing with the service industry a regular internship program where trainees may gain work experience and an introduction to the real workplace.

1.3 Assessment

Assessment is required for each unit and should be based on the trainee’s ability to perform at the minimum level of competency described in each competency standard. The assessment will vary according to actual competency under assessment and may include written, verbal or practical tests. Assessment outcomes will be stated as competent or not yet competent. To gain the Certificate of Training, a candidate needs to attain an assessment as competent for each of the competency standards at levels one, two and three.

1.4 Review of Industry Competency Standards

The Trade Testing Panel (TTP) is responsible for reviewing the industry competency standards every three years, or sooner if the need arises. Panel members may request a review at any time.

Service industry competency standards review date - _________ (date).
Approved and endorsed by the NTTB on ___________ (date).
2. Themes for each Level

These themes recur at each level of competency with increasing complexity and should be observed throughout the established set of competency standards. The themes are:

- PROTECTION [safety and security]
- HEALTH [hygiene and cleanliness]
- MEASUREMENT [measures and scales]
- MANAGEMENT [managing human and non-human resources]
- RELATIONSHIPS [elements relating to each other]
- TIME [timing of task completion]
- ATTITUDE [behavioral qualities]

3. Explanation of Terms

Components of a Competency Standard

Each competency standard is made up of several standard parts. The components of these competency standards are:

- **LEVELS** These signify major steps of trade knowledge and skills acquisition, not years of work. They are groups of skills deemed by industry as appropriate for the level of employment.

- **COMPETENCY STANDARD** This is a set of statements which describe exactly, in outcome terms, the skills and knowledge which are needed to perform important tasks or roles in the workplace.

- **UNIT OF COMPETENCE** Describes one component or group of skills and knowledge.

- **RANGE OF STATEMENT** Defines the boundaries of the unit, and links any equipment and reference material that may be used.

- **ELEMENT OF COMPETENCE** Elements of competence are the basic building blocks of the unit of competence. The elements of competence:
  - May vary in number between units of competence.
  - Are expressed as things an employee or service provider can do as an action or outcome.
  - Must be able to be demonstrated and assessed.
  - Are the key activities or elements of the skills and knowledge covered in the unit.

- **PERFORMANCE CRITERIA** Show the required level of performance expected in employment. These statements include the outcomes to be assessed to show if competency has been achieved. Performance criteria relate directly to each element of competency.

- **RANKING** Shows the level and the assessment outcome. To gain the certificate of training, candidates need to attain an assessment ranking as competent.

- **EVIDENCE GUIDE** Specifies how evidence is gained to determine if the required competency has been achieved.
LEVEL ONE

(BASIC or INTRODUCTORY)

4.1 Basic Level 1:

Performance at the Basic Level requires the demonstration of basic skills and basic understanding of knowledge in providing certain services. This involves routine tasks and working under supervisory and instructional arrangements. Level one also sets the prerequisites for levels two and three. The basic level establishes the parameters and themes under which the three levels of standards in service provision may be measured and standardized.

The basic level sets the minimum requirements for certification at Grade 1. There are nine units of competency in level one:

TH:101 Work Safety
TH:102 Health and Hygiene
TH:103 Measuring Equipment
TH:104 Food Preparation 1
TH:105 Food Service
TH:106 Baking
TH:107 Handicrafts
TH:108 Sewing for Tourism
TH:109 House Keeping

4.2 UNIT OF COMPETENCE: TH-101 WORK SAFETY

Range statement

This unit applies to work safety, as it needs to be demonstrated that observation of safety regulations and requirements are important aspects of being a safe worker in the services industry. Certain precautions and procedures must necessarily be identified and demonstrated in order to comply with national competency standards. This tasks will be carried out either by individuals or in small groups where necessary given all essential resources (e.g. equipment, materials). Some safe working practices are a matter of law, and students are to be informed of relevant laws at appropriate points.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| TH-101.1. Safe work environment | • Describe a safe work environment.  
• Explain basic safe work practices.  
• Demonstrate the wearing of appropriate safe work clothing and footwear. |
| TH-101.2. Major workplace hazards | • Describe major workplace hazards.  
• Explain common causes of accidents.  
• Describe symptoms of bodily injury due to lack of observation of safe work practices. |
| TH-101.3. Maintenance of safe work conditions | • Explain elements of safe housekeeping arrangements.  
• Demonstrate safe working practices.  
• Demonstrate procedures to maintaining safe work conditions. |
| TH-101.4. First Aid | • Define 'First Aid'.  
• Explain aims of First Aid. |
Demonstrate the application of basic First Aid techniques in an accident.

TH-101.5. Medical aid

- Recognize the symptoms that require immediate medical aid.
- Explain ways to obtain professional help in an emergency or an accident.
- Give clear and short messages on details of accident to emergency services.

EVIDENCE GUIDE

The following evidence of competence is required:

- Observation of safe practices and procedures, particular tasks and activities as these are performed.
- Written or verbal answers to written or verbal questions on:
  - Identification of safe work environment.
  - Identification of major workplace hazards.
  - Identification of the maintenance of safe work conditions.
  - Recognition of the need for First Aid.
  - Recognition of the need to seek medical assistance.
  - Application of basic First Aid techniques.
- Demonstrate basic First Aid techniques.
- Demonstrate giving clear and precise messages on the details of an accident to emergency services.

4.3 UNIT OF COMPETENCE: TH–102 Health and Hygiene

Range Statement

This unit applies to those health and hygiene practices that are needed to be demonstrated in order to be a healthy worker within the services industry. Health and hygiene practices require both personal and environmental cleanliness. These practices will be carried out either individually or in small groups dependent on the tasks and the equipment, material and facilities.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| TH-102.1. Personal health and hygiene practices | • Describe basic personal health care practices (e.g. washing with soap, brushing teeth, cleaning nails, combing hair, cleaning dress/clothing, no picking nose or spitting and appropriate use of deodorant).  
  • Correctly fit and wear appropriate clothing (e.g. apron and cap) and footwear. |
| TH-102.2. Workplace hygiene and cleanliness | • Identify common disease breeding conditions.  
  • Describe and demonstrate procedures for cleaning and maintaining health care in the workplace.  
  • Apply correct cleaning detergents.  
  • Correctly dispose of rubbish and wastewater.  
  • Demonstrate that PNG workplace health and welfare Act have been observed. |
EVIDENCE GUIDE

The following evidence of competency is required:

- Observation of safety and health practices and procedures as all tasks are being carried out.
- Written or verbal answers to written or verbal questions on:
  
  > Personal health care and practices.
  > Workplace hygiene and cleanliness.
  > Observation that the candidate is keenly aware of PNG health standards and regulations.

4.4 UNIT OF COMPETENCE: TH–103 MEASURING EQUIPMENT

Range Statement

This unit applies to common measuring equipment as needed to transfer required amounts of dry and fluid ingredients in recipes to food and beverage products, and in dress making and other clothing tasks. Other measuring equipment as may be needed is included. The tasks involved will be carried out either individually or in small groups given all the necessary equipment and materials.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH–103.1. Kitchen measuring equipment</td>
<td>• Correctly identify measuring cups, jars, spoons and kitchen scales.</td>
</tr>
<tr>
<td></td>
<td>• Explain function of each.</td>
</tr>
<tr>
<td></td>
<td>• Correctly use measuring equipment to transfer information from recipes to food and beverages.</td>
</tr>
<tr>
<td>TH–103.2. Sewing measuring equipment</td>
<td>• Correctly identify rolled tape measure and square set rulers.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate correct application of measuring instruments and apply them to clothing products.</td>
</tr>
<tr>
<td>TH–103.3. Bathroom scale</td>
<td>• Correctly identify bathroom scales.</td>
</tr>
<tr>
<td></td>
<td>• Explain function of bathroom scales.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate correct use of bathroom scales.</td>
</tr>
<tr>
<td>TH–103.4. Calculations</td>
<td>• Correctly calculate measurements in standard metric units using any of the measuring equipment.</td>
</tr>
<tr>
<td>TH–103.5. Care and maintenance</td>
<td>• Describe the care and maintenance required for each item of equipment equipment.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate correct way for care, storage and maintenance of each measuring instrument.</td>
</tr>
</tbody>
</table>

EVIDENCE GUIDE

The following evidence of competence is required:

- Observation of safety and health practices and procedures as all tasks are being carried out.
- Written or verbal answers to written or verbal questions on:
  
  > Kitchen and sewing measuring equipment.
  > Function and care of measuring equipment.
  > Demonstrate correct use, care and storage.
4.5 UNIT OF COMPETENCE: TH–104 FOOD PREPARATION 1

Range Statement
This unit applies to basic skills and knowledge required in preparing and cooking food. An on-site kitchen or cooking place is required with all appropriate facilities, equipment, utensils, materials, ingredients and resources. The tasks will be carried out either individually or in small groups.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
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</thead>
</table>
| TH-104.1. Food and nutrients | • Define food nutrients.  
• Define ‘nutritious meal’.  
• List and explain the 7 different types of nutrients (carbohydrates, fats and oils, proteins, minerals, vitamins, fibre, water).  
• Explain the function of nutrients in the human body correctly.  
• Prepare a meal that is adequately nutritious. |
| TH-104.2. Cooking methods | • Correctly define cooking methods (e.g. boiling, steaming, frying, baking, mumu, roasting).  
• Explain suitable cooking methods for the different types of food and nutrients.  
• Demonstrate correct use of methods and time to minimize loss of food nutrients and energy (e.g. electricity, gas, wood). |
| TH-104.3. Kitchen equipment and utensils | • Correctly identify kitchen equipment and utensils.  
• Describe correctly safe use, care and storage.  
• Use correct type of dishwashing detergent. |
| TH-104.4. Recipes | • Read and correctly explain parts of a recipe.  
• Correctly measure dry and wet/fluid ingredients.  
• Correctly follow recipe instructions and cook a meal. |

EVIDENCE GUIDE
The following evidence of competency is required:
• Observation of safety and health practices and procedures as all tasks are being carried out.
• Written or verbal answers to written or verbal questions on:
  ➢ Food and nutrients, and function in the human body.  
  ➢ Recipes, ingredients and procedures of preparation.  
  ➢ Cooking methods and preservation of nutrients.  
  ➢ Kitchen equipment and utensils.  
• Demonstrate an actual food preparation at an on-site kitchen set up or cooking place.

4.6 UNIT OF COMPETENCE: TH–105 FOOD SERVICE

Range Statement
This unit applies to skills and knowledge required providing food service in a restaurant or dining room situation. Observation of attitude and manner are important elements here. The tasks involved will be either carried out individually or in small groups given all facilities, equipment, utensils, cutlery, materials and resources.
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| TH-105.1. Table setting     | • Correctly set table for sit-down and buffet meals, mid-morning and afternoon tea/coffee.  
|                             | • Fold serviettes in variety of styles.                                                
|                             | • Observe cleanliness and maintain pleasant surroundings.                               
|                             | • Demonstrate table setting for a special occasion.                                   |
| TH-105-2. Stewardship and  | • Correctly attend to guests in serving food and beverages and removing used utensils,  
| waitressing                | cutlery and glasses.                                                                   
|                             | • Demonstrate appropriate friendly manner in serving guests.                           |
| TH-105.3. Table manners     | • Explain table manners in various cultural settings                                  
|                             | • Respond to common signs used by guests to call attention                              
|                             | • Demonstrate appropriate table manners at an actual dinner table or restaurant situation. |

**EVIDENCE GUIDE**

The following evidence of competence is required:
- Observation of safety and health practices and procedures as particular tasks and activities are performed.
- Written or verbal answers to written or verbal questions on:
  - Table setting.
  - Characteristics of good stewardship and waitressing.
  - Table manners and common signs of call for attention.
- Demonstrate an actual food service in a restaurant or dining room set up.

**4.7 UNIT OF COMPETENCE: TH–106 BAKING 1**

**Range Statement**
This unit applies to skills and knowledge required making a range of breads, pastries and yeast products. The tasks involved require either individual or small groups, given all the equipment, ingredients and facilities.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| TH-106.1. Ingredients                    | • Identify and list all ingredients required for breads, pastries and yeast products.  
|                                          | • Explain the role of each ingredient.                                                
|                                          | • Describe characteristics of good quality baked products.                            |
| TH-106.2. Equipment and facilities       | • Correctly identify equipment and facilities required for baking.                    
|                                          | • Discuss care, storage and maintenance of equipment and facilities.                  
|                                          | • Correctly use timer and set temperatures as required.                                |
| TH-106.3. Making breads, pastries and    | • Measure and weigh ingredients correctly.                                            
| yeast products                          | • Following recipe procedures correctly, demonstrate making breads, pastries and      |
EVIDENCE GUIDE

The following evidence of competence is required:

• Observation of safety and health practices and procedures as particular tasks are being performed.

• Written or verbal answers to written or verbal questions on:
  ➢ Bread making, pastries and yeast product ingredients and their role.
  ➢ Appropriate equipment and facilities.
  ➢ Care and maintenance of equipment and facilities.

• Demonstration of making breads, pastries and yeast products.

4.8 UNIT OF COMPETENCE: TH-107 HANDICRAFTS

Range Statement
This unit applies to skills required to be demonstrated in making handicrafts useful for commercial purposes. An individual given all essential equipment, materials and resources will carry out the tasks involved.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH-107.1. Traditional and contemporary crafts</td>
<td>• Describe crafts and their role in the tourist market.</td>
</tr>
<tr>
<td></td>
<td>• Explain the economic and cultural value of crafts.</td>
</tr>
<tr>
<td>TH-107.2. Equipment</td>
<td>• Identify relevant equipment for handicraft work.</td>
</tr>
<tr>
<td></td>
<td>• Describe proper care and storage of equipment.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate the making of useful handicrafts of commercial value.</td>
</tr>
</tbody>
</table>

EVIDENCE GUIDE

The following evidence of competence is required:

• Observation of safety and health practices and procedures as particular tasks and activities are being performed.

• Written or verbal report on:
  ➢ Completed handicrafts.

• Demonstrate the making of useful handicrafts.

4.9 UNIT OF COMPETENCE: TH-108 SEWING FOR TOURISM

Range Statement
This unit applies to skills and knowledge required for sewing items relevant for the tourist market, and repairs. The tasks involved will be carried out individually given all materials, fabrics, equipment and facilities.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH-108.1. Basic and embroidery stitches</td>
<td>• Explain the three (3) basic stitches and five (5) embroidery stitches and their uses.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate these stitches on items (small) of commercial value for the</td>
</tr>
</tbody>
</table>
EVIDENCE GUIDE

The following evidence of competence is required:

- Observation of safety and cleanliness practices and procedures as particular tasks are being performed.
- Written or verbal report on:
  - New items sewn and repairs made.
  - Demonstration and display of items sewn.

4.10 UNIT OF COMPETENCE: TH–109 HOUSE KEEPING 1

Range Statement
This unit applies to basic skills required to providing quality laundering and ironing service. The tasks involved will need an established laundry unit and be carried out by an individual candidate given all facilities, equipment, laundry detergent, iron and materials.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| TH-109.1. Laundry detergents | • Correctly identify detergents for specific uses.  
                                • Explain correctly the function of bleaches and starches.  
                                • Use correct amount of detergent per load in washing machine or hand wash. |
| TH-109.2. Process of laundry | • Correctly separate whites from coloured clothes.  
                                • Use correct quantity of clothes per machine load.  
                                • Correctly set timer for washing cycle on machine per load.  
                                • Correctly demonstrate laundry process from sorting to drying. |
| TH-109.3. Ironing            | • Identify correct temperature setting per fabric type.  
                                • Set steam or non-steam iron correctly.  
                                • Correctly iron parts of garments.  
                                • Either fold or hang garments on coat hangers correctly.  
                                • Observe safety requirements in the process of ironing. |

EVIDENCE GUIDE

The following evidence of competence is required:

- Observation of safety practices and procedures as particular tasks are being carried out.
- Written or verbal answers to written or verbal questions on:
> Laundry detergents and specific functions.
> Laundry process from sorting to drying.
> Ironing process.

- Demonstration of laundry and ironing process.

LEVEL TWO

(INTERMEDIATE or SEMI-SKILLED)

5.1 Level Two

Level Two is the intermediate or semi-skilled level of the three levels of competency standards. The candidate at this level is expected to have mastered the basic level one. Performance at Level Two requires the demonstration of a very good understanding of the knowledge and skills and the appropriate behaviour needed in providing certain services. This involves working under less supervisory and instructional arrangements and the student will be expected to work towards being more independent. Level two also sets the pre-requisites for level three.

Level two sets the minimum requirements for certification at Grade 2.

There are seven units of competency in level two:

TH:201 Travel and Tour Operations
TH:202 Money and Banking
TH:203 Baking 2
TH:204 Food preparation 2
TH:205 Accommodation Services
TH:206 Bookkeeping
TH:207 Housekeeping 2

5.2 UNIT OF COMPETENCE: TH-201 TRAVEL AND TOUR OPERATIONS

Range Statement

This unit applies to skills and information required in organizing and managing travel and touring operations. The tasks and activities involved will be carried out either individually or in small groups given all essential materials and resources.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| TH-201.1. Travels and tours | • Define the terms ‘travel’ and ‘tours’.
| | • Explain the function of travelling and touring.
| | • Describe types of travels and tours. |
| TH-201.1. Operations | • Explain procedures for operating tours.
| | • Give details of arranged tours (e.g. costs, time and schedules, locations/sites).
| | • Arrange a packaged group tour. |
| TH-201.1. Festivities | • Describe festivities.
| | • Plan tours to coincide with local festivities. |

EVIDENCE GUIDE

The following evidence of competence is required:
• Observation of safety and health practices and procedures as particular tasks and activities are being performed.
• Written or verbal answers to written or verbal questions on:
  ➢ Travelling and touring.
  ➢ Tour operations.
  ➢ Local festivities.
• Do a written tour plan that coincides with local festivities.
• Organize and operate a local tour.

5.3 UNIT OF COMPETENCE: TH–202 MONEY AND BANKING
Range Statement
This unit applies to skills and knowledge required to be demonstrated in order to show value of money in the cash economy in contrast to the traditional subsistence economy. Individuals given all equipment, materials and facilities will carry out the tasks involved.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH-202.1. Money</td>
<td>• Define the term ‘money’.</td>
</tr>
<tr>
<td></td>
<td>• Explain the value of money.</td>
</tr>
<tr>
<td></td>
<td>• Describe the banking system.</td>
</tr>
<tr>
<td></td>
<td>• Explain the role of banks.</td>
</tr>
<tr>
<td></td>
<td>• Explain types of bank accounts and services available to customers.</td>
</tr>
<tr>
<td>TH-202.2. Banking system</td>
<td>• Explain the concepts of liabilities, debts, savings and profit making.</td>
</tr>
<tr>
<td></td>
<td>• Give an explanation of foreign currency exchange.</td>
</tr>
<tr>
<td>TH-202.3. Investments</td>
<td>• Describe types of investments.</td>
</tr>
<tr>
<td></td>
<td>• Explain the role of investments.</td>
</tr>
<tr>
<td></td>
<td>• Explain risks involved in investments.</td>
</tr>
</tbody>
</table>

EVIDENCE GUIDE

The following evidence of competence is required:
• Observation of safety practices and procedures as particular tasks and activities are being performed.
• Written or verbal answers to written or verbal questions on:
  ➢ The value of money.
  ➢ The banking system.
  ➢ Investment planning.
• Operate a bank account.
• Written report on profits and loses, interests and risks in banking and investments.

5.4 UNIT OF COMPETENCE: TH–203 BAKING 2
Range Statement
This unit applies to improving skills and knowledge acquired in level one (Baking 1) with additional skills and knowledge of sweet baked products and icing and decorating cakes. Individuals given all the essential equipment, ingredients, materials and facilities, will carry out the tasks involved.
ELEMENT OF COMPETENCE PERFORMANCE CRITERIA

TH-203.1. Ingredients
- Identify and list ingredients for making biscuits and cakes.
- Correctly weigh and measure ingredients.

TH-203.2. Icing equipment
- Identify items of icing equipment and explain function of each.
- Correctly state care and storage of equipment.

TH-203.3. Icing and decorating
- Describe different types of icing and decoration for various occasions.
- Correctly demonstrate icing and decoration of cakes and biscuits.

EVIDENCE GUIDE

The following evidence of competence is required:

- Observation of safety and health practices and procedures as particular tasks and activities are being performed.
- Written or verbal answers to written or verbal questions on:
  - Baked sweet products and icing ingredients.
  - Icing and decorating equipment.
- Demonstrate icing and decoration of baked sweet products.

5.5 UNIT OF COMPETENCE: TH-204 FOOD PREPARATION 2

Range Statement
This unit is designed to advance skills and knowledge gained in level one (Food Preparation 1) to what is required to plan meals and menus, and to do relevant costing and food purchasing. Either individuals or small groups given all essential equipment, ingredients, materials and facilities will perform the tasks and activities involved.

ELEMENT OF COMPETENCE PERFORMANCE CRITERIA

TH-204.1. Meal planning
- Explain meal planning.
- Give factors contributing to a good meal plan.
- Plan a meal suitable for breakfast, lunch or dinner.

TH-204.2. Designing menus
- Explain the function of a menu plan.
- Correctly design a menu with all required information.

TH-204.3. Budgeting and purchasing
- Define the term 'budgeting'.
- Calculate cost of a meal.
- Purchase ingredients required for a meal and prepare the meal.

EVIDENCE GUIDE

The following evidence of competence is required:
- Observation of safety and health practices and procedures as particular tasks and activities are being performed.
5.6 UNIT OF COMPETENCE: TH-205 ACCOMMODATION SERVICES

Range Statement
This unit applies to guest services in hotels, motels, guesthouses and resort accommodation. While skills and information on the duties of room attendant, front office telephonist, receptionist, cashier, accounts clerk, clerical assistant and night auditor are important; attitude is a very important element to be observed in the execution of duties. A front office situation is required given all facilities and resources. The tasks will be performed individually.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
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</thead>
<tbody>
<tr>
<td>TH-205.1. Guest services</td>
<td>• Describe types of guest accommodation.</td>
</tr>
<tr>
<td></td>
<td>• Explain procedures and record keeping on guest movement.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate correctly the recording of guest check-in and out.</td>
</tr>
<tr>
<td>TH-205.2. Roles and</td>
<td>• Explain the duties and responsibilities for each worker in the accommodation services.</td>
</tr>
<tr>
<td>responsibilities</td>
<td>• Demonstrate tasks specific to each job in providing accommodation.</td>
</tr>
<tr>
<td>TH-205.3. Customer service</td>
<td>• Describe the manner in which to serve guests or customers properly.</td>
</tr>
<tr>
<td></td>
<td>• Explain code of ethics towards customers.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate friendly and welcoming manner in attending to customers in person, by telephone and in writing.</td>
</tr>
</tbody>
</table>

EVIDENCE GUIDE

The following evidence of competence is required:

• Observation of safe and healthy practices, and good customer service as particular tasks and activities are performed.
• Written or verbal answers to written or verbal questions on:
  ➢ Types of guest accommodation.
  ➢ Guest movement.
  ➢ Roles and responsibilities.
  ➢ Customer relationship code of ethics.
• On-site examination of performance in executing duties.
• Demonstrate correctly that specific tasks in guest services are being carried out and in the manner that is appropriate and friendly.
5.7 UNIT OF COMPETENCE: TH–206 BOOKKEEPING

Range Statement
This unit applies to basic bookkeeping skills where computer is not available, manual bookkeeping systems and operations are used. The tasks involved will require an individual to work by himself/herself, given all equipment, materials and facilities provided.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH-206.1. Record keeping</td>
<td>• Correctly define record keeping.</td>
</tr>
<tr>
<td></td>
<td>• Explain a manual bookkeeping system.</td>
</tr>
<tr>
<td></td>
<td>• Describe characteristics of a good bookkeeping system.</td>
</tr>
<tr>
<td></td>
<td>• Correctly demonstrate bookkeeping by recording daily intakes and payments for a selected period of time.</td>
</tr>
<tr>
<td>TH-206.2. Capital assets and liabilities</td>
<td>• Describe capital assets and liabilities.</td>
</tr>
<tr>
<td></td>
<td>• Correctly record account of assets and liabilities.</td>
</tr>
</tbody>
</table>

EVIDENCE GUIDE
The following evidence of competency is required:

- Written or verbal answers to written or verbal questions on:
  - Bookkeeping systems and characteristics of good record keeping.
  - Capital assets and liabilities.

- Demonstration of good bookkeeping by keeping a journal of daily in-coming and out-going transactions.

5.8 UNIT OF COMPETENCE: TH–207 HOUSE KEEPING 2

Range Statement
This unit applies to skills and knowledge concerning bedroom service, specifically on bed making, cleaning room, showers and toilets. An individual given all materials, cleaning agents, bed linens and bathroom essentials, will carry out the tasks involved in an established bedroom unit.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH-207.1. Bed room</td>
<td>• Explain the function of bedroom and the need for comfort.</td>
</tr>
<tr>
<td></td>
<td>• Correctly make the bed with clean bed linens.</td>
</tr>
<tr>
<td></td>
<td>• Describe essential items such as supplies for fridge and hot drinks.</td>
</tr>
<tr>
<td>TH-207.2. Shower and toilet</td>
<td>• Explain the function of shower and toilet and the need for hygiene and cleanliness.</td>
</tr>
<tr>
<td></td>
<td>• Correctly clean shower walls, floors and toilet bowl.</td>
</tr>
<tr>
<td></td>
<td>• Describe essential supplies for the shower and the toilet.</td>
</tr>
</tbody>
</table>
Identify correct cleaning materials and detergents for each required task.

Demonstrate correctly the procedure for cleaning bedroom, shower and toilet and other items (e.g. walls, ceilings, windows/louvres, floors, mirrors, tables/benches, coffee mugs and drinking glasses).

EVIDENCE GUIDE

The following evidence of competence is required:

- Observation of safety and health practices and procedures as particular tasks and activities are being performed.
- Written or verbal answers to written or verbal questions on:
  - Function of bedroom and the need to maintain its cleanliness and comfort.
  - Function of shower and toilet and need for hygiene.
  - Cleaning agents.
- Demonstrate order of work required to service guestroom.

LEVEL THREE

(ADVANCED or SKILLED)

6.1 Level Three

Level Three is an advanced or skilled level, which is the top range of the three levels of competency standards in the service area. Performance at level three requires that the candidate demonstrate that levels one and two have been mastered and ranked as competent. At this level, tasks involved require interpretation, and diagnostic and problem solving with very little or with no supervision. At level three, candidates should perform most tasks independently.

Level three sets the minimum requirements for certification at Grade 3.

There are five units of competency in level three:

TH:301 Food Preparation 3
TH:302 Computing
TH:303 Tourism Legislation
TH:304 Communication
TH:305 Promoting Tourism

6.2 UNIT OF COMPETENCE: TH–301 FOOD PREPARATION 3

Range Statement

This unit applies to advanced skills and knowledge in food preparation. The preparation is to take place in a kitchen, bistro-type set up. Students will work either individually or in small groups given all equipment, ingredients, utensils, cutlery, materials and facilities.
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| TH-301.1. Special occasions | - Describe types of special occasions.  
- Create and plan a special occasion. |
| TH-301.2. Bar functions | - Differentiate and explain alcohol and non-alcohol beverages.  
- Mix and measure amounts of drinks correctly.  
- Carefully read and correctly interpret meaning of the liquor-licensing Act. |
| TH-301.3. Bistros functions | - Describe dining room procedures.  
- Explain bistro functions.  
- Set up a simulated bistro that is attractive, feels good and welcoming.  
- Diagnose space problems and provide solutions. |
| TH-301.4. Food poisoning, laws and liabilities | - Correctly identify causes and symptoms of food poisoning.  
- Provide possible solutions.  
- Carefully read and interpret PNG food laws and liabilities.  
- Discuss tourist operator’s responsibility. |
| TH-301.5. Recipe collection and development | - Identify components of a recipe.  
- Collect and make up a recipe book.  
- Create and develop local recipes.  
- Experiment on new recipes. |

**EVIDENCE GUIDE**

The following evidence of competence is required:

- Observation of safety and health practices and procedures as particular tasks and activities are being performed.  
- Written or verbal answers to written or verbal questions on:
  - Special occasions.  
  - Bar functions.  
  - Bistros functions.  
  - Food poisoning laws and liabilities.  
  - Diagnosing and solving problems related to foods and beverages, and bistros.  
- Create, plan and prepare a special occasion activity.  
- Visual examination of the plans and implementation of this occasion.

**6.3 UNIT OF COMPETENCE: TH–302 Computing**

**Range Statement**

This unit applies to computer literacy skills and knowledge to be able to do touch-typing, word processing and obtain entry into the Internet. Working individually given all facilities, computer and printer with all essential accessories and materials.
<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| TH-302.1. Touch-typing | • Read and carefully interpret manual on touch-typing.  
                          • Demonstrate touch-typing with speed and accuracy. |
| TH-302.2. Word processing | • Describe word processing functions.  
                             • Produce an assignment or correspondence using word processing.  
                             • Print the paper using a printer.  
                             • Demonstrate accurately word processing functions. |
| TH-302.3. Internet | • Establish internet access.  
                           • Carefully demonstrate a variety of internet functions (e.g. receiving, sending and forwarding email messages).  
                           • Access information from the internet. |

**EVIDENCE GUIDE**

The following evidence of competence is required:
- Observation of safety and health practices and procedures as particular tasks and activities are being performed.
- Written or verbal answers to written or verbal questions on:
  - Touch-typing.
  - Word-processing.
  - Internet.
- Produce a document using the computer.

### 6.4 UNIT OF COMPETENCE: TH-303 TOURISM LEGISLATION

**Range Statement**

This unit applies to the understanding of and interpretation of laws and regulations within the tourism industry. Working as individuals given all materials and resources.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
</table>
| TH-303.1. Public health regulations | • Verbally discuss regulations concerning foods, beverages, food poisoning and liabilities.  
                                          • Diagnose accurately public health problems and seek solutions.  
                                          • Create awareness of the problem of HIV/AIDS and tourism. |
| TH-303.2. Regulations for business operators | • Read accurately and carefully interpret regulations for business operators in tourism.  
                                              • Discuss liabilities for business operators. |
| TH-303.3. Insurance cover | • Describe ‘insurance cover’.  
                            • Explain types and benefits. |

**EVIDENCE GUIDE**

The following evidence of competence is required:
• Observation of safety and health practices and procedures as particular tasks and activities are being performed.
• Written or verbal answers to written or verbal questions on:
  ➢ Public health regulations.
  ➢ Regulations for business operators in tourism.
  ➢ Insurance cover.

• Verbal presentation of a public health issue regarding tourism.

6.5 UNIT OF COMPETENCE: TH-304 COMMUNICATION

Range Statement
This unit applies to skills and knowledge of communicating verbally, in writing and other forms of communication. Communication is expected to be carried out with appropriate professionalism and a friendly attitude. Forms of communication involved will be carried out and demonstrated individually given all the equipment, materials, facilities and resources.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH-304.1. Verbal communication</td>
<td>• Speak clearly and accurately either in English, Tok Pisin, Motu or Tokples – whichever is appropriate.</td>
</tr>
<tr>
<td></td>
<td>• Speak in a manner that is friendly towards tourist guests.</td>
</tr>
<tr>
<td></td>
<td>• Diagnose communication problems and seek solutions.</td>
</tr>
<tr>
<td>TH-304.2. Written communication</td>
<td>• Explain difference between personal and business/professional correspondence.</td>
</tr>
<tr>
<td></td>
<td>• Write a business letter, memorandum and minute.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate report writing and minutes of meeting.</td>
</tr>
<tr>
<td>TH-304.3. Telephone</td>
<td>• Describe the function of a telephone.</td>
</tr>
<tr>
<td></td>
<td>• Explain distance phone calls (local, national or international) and the cost of each call.</td>
</tr>
<tr>
<td></td>
<td>• Promptly receive phone calls and take messages accurately.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate telephone etiquette.</td>
</tr>
<tr>
<td>TH-304.4. Facsimile</td>
<td>• Explain the function of a facsimile machine.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate use and care of facsimile machine.</td>
</tr>
<tr>
<td>TH-304.5. Other medium of communication</td>
<td>• Use accurately the computer; photocopying machine, video and television set.</td>
</tr>
</tbody>
</table>

EVIDENCE GUIDE

The following evidence of competence is required:
• Observation of safety and health practices and procedures as particular tasks and activities are being performed.
• Written or verbal answers to written or verbal questions on:
  ➢ Verbal and oral communication.
  ➢ Telephone, facsimile and other media of communication.

  ➢ Visual examination of the skills of communication to be demonstrated in various settings.
• Observation of proper manner – professional yet friendly in the use of the telephone.
6.6 UNIT OF COMPETENCE: TH-305 PROMOTING TOURISM

Range Statement
This unit applies to the skills and knowledge required for the promotion or marketing of tourism in PNG and overseas. The work involved will be carried out either by individuals or in small groups given all equipment, materials, facilities and resources.

<table>
<thead>
<tr>
<th>ELEMENT OF COMPETENCE</th>
<th>PERFORMANCE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH-305.1. Marketing strategies</td>
<td>• Describe the role of marketing.</td>
</tr>
<tr>
<td></td>
<td>• Interpret accurately messages on current tourism promotional materials (e.g. pamphlets, brochures, and posters).</td>
</tr>
<tr>
<td></td>
<td>• Diagnose a problem in the promotional materials and suggest a remedy.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate one idea of promoting tourism in any medium.</td>
</tr>
</tbody>
</table>

EVIDENCE GUIDE

The following evidence of competence is required:

- Observation of safety and health practices and procedures as particular tasks and activities are being performed.
- Visual examination of promotional materials created, designed and displayed.
Appendix F3: MANAGING ECO - TOURISM AND HOSPITALITY

Course Structure for Vocational Training
Papua New Guinea

Rona Nibeta Nadile

The Australian National University

September 1999
# Table of Contents

Page

1. Introductory Notes for Teachers .............................................. 1
2. Curriculum Concepts .............................................................. 1
3. Teaching Methodology ............................................................. 2
4. Format of Syllabus ................................................................. 2
5. Duration of Program ............................................................... 2
6. Mission Statement ................................................................. 3
7. Rationale ............................................................................. 3
8. Goals and Objectives ............................................................ 4
9. Assessment Criteria .............................................................. 4
10. Program Summary ............................................................... 5
11. Course Structure ................................................................. 6
12. Curriculum Support Resources ............................................. 18
1. Introductory Notes for Teachers

The twentieth century saw Papua New Guinea in transition from the traditions and practices of its subsistence economy into Western civilization embracing the cash economy and all its costs and benefits. The end of this century witnessed a shift in government thinking to reform government systems and institutions due to political, economic and social problems. According to government policy giving top priority to human resource development, the National Department of Education has made a commitment to reform the national education system in order to make education more accessible and relevant to the needs and aspirations of the population at large. Among the priorities, the reform highlighted the need for relevant curriculum development for schools, colleges and training centres.

The course on managing eco-tourism and hospitality is designed to meet gender employment and entrepreneurship needs in the growing wage and informal sectors. This course provides a thorough grounding in theoretical and practical knowledge, skills and abilities. It is designed to give students quality training that employers and entrepreneurs may need in the service industries of tourism and hospitality.

1.1 The Formula for Success

Make eco-tourism and hospitality a "TRAINEE CENTRED, PEOPLE CENTRED" course. Take care of the students during their studies in the centres. Keep records of trainee needs and of the assistance and resources provided to help establish eco-tourism and hospitality as one of the key courses in the vocational sector. Provide knowledge and skills for the future, promote future contacts, understand Papua New Guinea as a nation and a people with a diversity of cultures, languages and histories both oral and written. And most of all understand the service industry and customer, client service requirements. When developing annual, semester and term programs and planning lessons – read and understand the background to the subject and add or delete concepts, experiences and examples, and very important – write them down! At the same time, keep records of accomplishments and progress for each student throughout the entire course. On graduation, send the graduands forth, and where possible help the graduands to make contacts for either employment or help set up entrepreneurs in the service industry.
1.2 Entry Requirement

Completion of Grade 8 with literacy and numerical skills will be the standard requirement. There are however, people with education and training needs who come from before and after Grade 8 level. These needs may be considered in the light of the resources and capacity of the course to accommodate on first come first serve bases. Further to these requirement will be that half the trainees will be females.

1.3 Career Opportunities

After completion of this course, certain service areas offer opportunities for professional careers. Many of the graduands may need assistance in their job search and should be helped accordingly. Some possible jobs and places of employment in the formal and private sectors are listed below. Many opportunities are also available in the informal sector and staff and should encourage and support those interested in entrepreneurship. The list of types of places of employment in the services industry is given as a guide and is by no means complete.

1.3.1: Possible Jobs

- Accounting
- Bakers
- Barman/barmaid
- Book keeping
- Cashiers
- Chefs
- Child/elderly/invalid carers
- Cleaning/janitors
- Clerks
- Computing
- Cooks
- Domestic workers
- Entertainers
- Handicrafts
- Laundry/ironing
- Motor vehicle drivers
- Outboard motor operators
- Pastry makers
- Professional domestic workers
- Receptionists
- Seamstress
- Shop/canteen assistants
- Stewards
- Stewards
- Switchboard operators
- Telephonist
- Tour guides
- Tour operators
- Waitress

OR

- Entrepreneurship (set up own business enterprise).

1.3.2 Possible Places of Employment

1.3.2.1 Public Sector

- Child care centres
- Elementary schools
- Government hostels
- Homes for special needs people
- Hospitals and rural health centres
- Orphanage homes
- Public restrooms
- Public transportation
- Residential dormitories
- Schools
- School canteens
- School kitchens

1.3.2.2 Private Sector

- Catering services
- Child care centres
- Church guest houses
- Flower shops
- Hotels and restaurants
- Landscaping
- Petrol service stations
- Preschools
- Supermarkets
- Tour operators
- Travel agents
- Women's refugee centres
- Youth hostels

1.3.2.3 Informal Sector

- Arts/crafts
- Catering services
- Child care/baby sitting
- Clothing repairs/production
- Home bakery
- Kai haus
- Local markets
- Professional haus meri
- Tradestores/canteens
- Village guest houses
1.4 Duration of Program

Two-year program of four semesters and eight terms from January to December per annum. Taking into account public and school holidays, the centres may be in actual operation for a total of 40 weeks per annum.

1.5 Teaching Methodology and Language of Instruction

Teaching or lecture methods are employed together with tutorials, demonstrations, dramatizations, guest speakers, seminars, displays, group work and discussions, where necessary field excursions, projects and workshops. Local traditions of story telling and other ways of passing on knowledge and skills to the young may be explored and utilised. Language of instruction will be English, Motu, Tok Pisin and local vernaculars where necessary so that the trainees may have clear and accurate understanding.

1.6 Assessment Criteria

The quality of performance by trainees in given tasks in practice and theory is an important component of this course. Each trainee's level of achievement will be measured by an individual or group work performance to determine the mastery of skills in literacy and demonstrations of knowledge and practical skills. An assessment instrument such as written, oral, practical or demonstrative tests or assignments and projects may be used. The trainees may be given the opportunity to evaluate their own performance for each topic studied.

The instructors should also be encouraged to have their own performance evaluated both by themselves and their trainees for self-improvement purposes.

2. Mission Statement

A long-term vision is to make Papua New Guinea a friendly world tourist destination. Catch phrases such as 'PNG land of desire', ‘the island of paradise’ where holiday makers and other travellers come to relax, rest and reenergize, be encouraged by making PNG environmentally friendly, hospitable, safe and secure. The vocational centres open doors of opportunity to provide the necessary training for this great global service industry. Through this the law and order problems may be reduced and the poverty of the people alleviated and quality of life is improved.

3. Rationale

Papua New Guinea has been known for its rich natural resources but the results are intangible. There is another resource – the human resource. Human resources may be complimented by the culture and traditions of the people. The humble and lowly vocational centres are encouraged to capitalize on these and create employment and entrepreneurship.

4. Goals and Objectives

4.1 Goals

The tourism and hospitality course in the vocational centres throughout Papua New Guinea will serve to bring about change by the way that the service industry operates, and provides an opening for many of the unemployed school leavers and others to acquire skills (including literacy and numerical), knowledge and develop abilities and attitudes for employment and entrepreneurship.

4.2 Objectives
The expected outcome of this course will be:

4.2.1 Graduates will be competent to gain employment in the service industries.

4.2.2 Graduates will be competent to enter into entrepreneurship either alone or in partnerships in the service industries.

5. Course Summary

Year One

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Term 1 Subjects</strong></td>
<td><strong>Term 2 Subjects</strong></td>
</tr>
<tr>
<td>7.1 About PNG</td>
<td>7.5 Professional House Keeping</td>
</tr>
<tr>
<td>7.2 What is Hospitality</td>
<td>7.6 Catering 1</td>
</tr>
<tr>
<td>7.3 Training Skills</td>
<td>7.9 Baking 1</td>
</tr>
<tr>
<td>7.4 Work Safety</td>
<td>7.23 Computing</td>
</tr>
</tbody>
</table>

Year Two

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Term 1 Subjects</strong></td>
<td><strong>Term 2 Subjects</strong></td>
</tr>
<tr>
<td>7.16 Money and Banking</td>
<td>7.8 Catering 3</td>
</tr>
<tr>
<td>7.10 Baking 2</td>
<td>7.18 Sewing for Tourism</td>
</tr>
<tr>
<td>7.19 Handicrafts</td>
<td></td>
</tr>
</tbody>
</table>

6. Format of Syllabus

The syllabus is designed in such a way that teachers get the big picture in order to provide a holistic approach to teaching and advancing the tourism and hospitality industry in this country. A general description is outlined about the subject, followed by unit titles and topics where details of expected learning outcomes, instructional aids, learning activities and assessment criteria are given for each topic.
7. Course Outline

An outline of the course in Managing Tourism and Hospitality is described in the subjects offered with units and topics following. Short courses of two to six weeks or six months duration may be extracted from the main course to cater for specific client needs.

7.1 About Papua New Guinea (who is PNG?)

This subject introduces Papua New Guinea (PNG) people identity and the land through questions such as: What do we know about the local area? Local history, culture, customs and traditions, languages, dances, stories, legends? What do we know about our national history? National geography, the rural and urban settings, government, infrastructure, communications, services. Why believe PNG is a significant tourist destination? Why is it often referred to as 'land of the unexpected'? Trainees need to know about their country in order to prepare to meet the world of tourism. Emphasis is on being able to speak of the beauty, positive and encouraging aspects of PNG. Methods of teaching include teaching, guest speakers, demonstrations, drama and group work. Assessment is based on written assignments, tests and seminar presentations.

Units and Topics

- Who is a Papua New Guinean?
  - People, culture and languages.
  - Local and national history.

- Geography of PNG.
  - The land (geography) and land ownership.
  - Infrastructure and communications.

- Why is PNG known as the 'land of the unexpected'?
  - PNG contemporary lifestyles.

7.2 Hospitality

This is an introductory subject which provides the setting for teaching the whole concept of tourism and hospitality. What is tourism? What is hospitality? Preparations before the arrivals, welcoming and farewells. The cost of tourism and hospitality (expected and unexpected) in terms of economic and social values and the environment. Capitalise on PNG's cultural qualities and natural friendliness and generosity towards the reception of guests, visitors or strangers. Basic etiquette – conventional rules of social behaviour, the manner of making tourists feel welcome, utilising local customs; first impressions important, table manners (local and others), presentations, body odour, dress standards, appearance, speech and body language are covered. Awareness will also be raised about the care of tourists (charges/fees/fores for boats, PMVs, accommodation, food etc). Methods of instruction include teaching, demonstrations, drama, and local guest speakers. Assessment is based on written tests and assignments, and group project report.

Units and Topics

- What is tourism and hospitality?
  - Conceptualizing (getting the idea, knowing and understanding) tourism and hospitality.
  - The cost of tourism to PNG (Expected and unexpected).
  - Economic and social values.
7.3 Training Skills

Because of the nature of vocational training, this subject introduces students to become successful trainees. A friendly environment is created to accept trainees of all backgrounds and education or no education levels to show them how to learn or train in a vocational centre. The five senses of hearing, seeing, touching, tasting and doing are included. Skills of how to listen effectively, take notes, ask questions, do simple research and writing assignments are taught. An added bonus in this course is the introduction to the professional communication skills needed to use the facsimile machine, telephone etiquette; business and other types of letter writing and other media of communication. The use and care of equipment and facilities. Methods of teaching include teaching, discussions, group work, video shows, guest speakers and demonstrations. Assessment is focussed on how well students learn to learn by written assignments, oral presentations and group project displays.

Note: Professional communication skills may be separated and taught as a short course. Communication through the use of computer is covered separately in point 7.23.

Units and Topics

- How to complete the course successfully.
  - Why the five senses?
  - The five training skills.
- Communication skills.
  - Equipment, facilities and their use and care.
  - Telephone use

7.4 Work Safety

This subject is about a safe working environment inside and outside the training facilities including the kitchen, sewing and craft workshops, computer rooms, when operating tours, and tourist and worker safety. Government legislation on work place safety requirements, employer and employee costs and compensations. First Aid, and occupational health safety are also covered. Instruction methods include teaching, demonstrations and practical workshops. Assessment is based on written and demonstrative tests and seminar presentations.

Units and Topics

- Why talk work safety?
  - Government legislation.
  - Employer and employee costs.
  - Compensations.
- Locations of risk.
  - Internal and external locations.
High and low risk places and activities.

- First Aid.
  - Attending to accidents.
  - Common sense equipment and materials use and care.
- Occupational health safety.
  - Computer use.
  - Workplace furniture and equipment.
  - Personal posture and exercise.

7.5 Professional Housekeeping

The aim of this subject is to create an environment that may demonstrate a professional outlook on cleaning jobs as noble undertakings, thus making cleaning jobs socially and economically acceptable forms of employment. The course content will cover germs that cause disease, carriers of disease and the need for hygiene and cleanliness, indoors and surroundings. The methods of cleaning such as washing, scrubbing, bleaching; specific areas of house such as kitchen, bedroom, showers, toilets (public and private), ceilings, floors; louvers; different surfaces such as unpainted and painted wood, bricks and cleaning agents such as powdered and bar soaps, detergents, bleach, dettol, steelwool, agex, and all purpose cleaners are covered. Laundry and ironing, use of polish, varnish, brass and silver ware care, and basic flower arrangements are included. Methods of teaching include teaching, demonstration and practical applications. Assessment is based on written and practical instruction tests and project assignments.

Units and Topics

- Hygiene and health.
  - Conditions for good health.
  - Causes of sickness and disease.
  - Public health regulations and liabilities.
- Preventing infections and contamination.
  - Suitable cleaning agents and methods.
  - Environmental cleanliness.
  - Use, care and storage of equipment and materials.
- Laundering and ironing.
  - Process of laundry and ironing.
  - Laundry detergents.

7.6 Catering 1

This subject provides the first in a series of three catering subjects. This subject aims to teach the trainees the basics to food preparation. The content include cleanliness and hygiene, wearing of aprons, washing hands, and keeping hair neat and tidy, measuring and other equipment and utensils, food nutrients, cooking methods, recipes and instructions, food service, table setting, folding and displaying serviettes, table manners, type of meals (breakfast, lunch, dinner and morning and afternoon teas or snacks), timing and scheduling with reference to course No. 7.18. Methods of teaching involves teaching, demonstrations, discussions, displays and practical exercises. Assessment is based on written and practical tests, and assignments.

Units and Topics
7.7 Catering 2

The second in the series of catering teaches an intermediate level of catering. This provides the trainees the opportunity to improve on the skills acquired in Catering 1. The subject looks at planning meals, menus, budgeting, shopping lists, expiry dates of food items and purchasing. Advertising and consumer education are also covered. Methods of teaching include teaching, demonstrations, practical exercises and research project on local advertising. Assessment is based on written and practical tests and assignments and project report.

Units and Topics

- Planning meals, organising and conducting functions.
- Meal planning.
- Budgeting and purchasing.
- Advertising and consumer training.
- Government legislations.
- Advertising.
- Value for money.

7.8 Catering 3

Catering 3 brings the trainees to an advanced level of catering where they are able to view catering in a broader perspective within the PNG cuisine and the hospitality industry. Types of occasions, suitable foods and beverages are covered. A special feature at this stage will be recipe development where trainees learn to develop new recipes and/or adapt traditional PNG recipes and other recipe collections. Methods of teaching will include teaching, demonstrations, practical cooking and developing recipe exercises. Assessment is based on written and practical tests and recipe project assignments.

Units and Topics
PNG cuisine and hospitality industry.
- Special occasions.
- Cocktail and wine service.

Bar functions.
- Alcohol and non-alcohol beverages.
- Mix and measure.

Bistros functions (small restaurant).
- Dinning room procedures.

Food laws and liabilities.
- Tourist operators responsibilities.

Recipe development.
- PNG traditional recipes.
- International collections.
- Original recipe ideas.

7.9 Baking 1

The aim of this subject is to teach the trainees to make a range of breads, pastries and yeast products. The trainees will also learn how to use and care for equipment and facilities such as measuring, weighing scales, electric, gas and wood ovens; mixing bowls and baking trays. Instruction methods include teaching, demonstrations and practical baking exercises. Assessment is based on written and practical tests.

Units and Topics

- Baking
  - Bread making.
  - Pastries and yeast goods.
  - Equipment and facilities

7.10 Baking 2

Baking 2 is designed to improve skills acquired in Baking 1 and introduce the trainees to baking sweet products such as cakes and biscuits, and icing and decorating cakes. The trainees will also learn about specialized icing equipment and how to take care of it. Teaching methods include teaching, demonstrations and practical exercises. Assessment is based on written and practical tests, and written assignments.

Units and Topics

- Cake making.
  - Types of cakes.
  - Specialized icing equipment.
  - Cake icing and decorating

7.11 Accommodation
This subject prepares trainees for work servicing guests in guesthouses, hotels, motels and resorts or where entrepreneurs run tourist ventures is concerned. It teaches the duties of a room attendant, valet (gentleman's personal attendant who looks after his clothes), front office telephonist, clerical assistant, and receptionist, cashier, accounts clerk, night auditor and concierge (porter). Methods of instruction include teaching, demonstrations, workshops and practical applications. Assessment is based on written and practical tests and project assignments.

Units and Topics

- Guest services.
  - Roles and responsibilities.
- Other guest service skills.

7.12 Entertainment

The aim of this subject is to introduce the concept of recreation, leisure and relaxation, not in opposition to work but in providing a positive, energising spirit towards working smarter. Training in providing entertainment activities is geared towards this end. Forms of entertainment such as singing, dancing, village games, story telling or poetry reading, bushwalking, canoeing, caving, diving and snorkeling are covered. Methods of instruction includes teaching, demonstrations, workshops and discussions. Assessment is based on written assignments and oral presentations in terms of short seminars or demonstrations by trainees. This course leads to the staging of a cultural show in the training centre.

Units and Topics

- Why take time off from work?
  - Types of recreation and leisure activities.
  - Working smarter.
- Why entertain?
  - Types of entertainments.
  - Other activities (e.g. festivities and traditional ceremonies).

7.13 Travel and Tour Operations (journey through country)

The aim of this subject is to introduce the trainee to the organization and management of travel and tour operations. To do this with efficiency and effectiveness, students would need to review their knowledge about the geography and people of PNG as taught in point 7.0. Details of this subject cover general and arranged travel and tours in PNG, times and schedules of departures and arrivals, pick up and drop off points, packaged group tours; contacts and networking with travel and tour guides, agencies and operators. Types and duration of tours, location/places of tours (historical, memorial, sacred, village, and scenic views); festivity, singsing and ceremonial (e.g. Trobriands yam festivals and Highlands cultural shows) tours. Where appropriate, trainees need to acquire driving skills, training in civil traffic courtesies, and canoeing and boating operational skills. Methods of instruction include teaching, guest speakers, excursions to local travel agencies and operations, site visits, participate in local festivities and students organize own day tour. Assessment is based on written tests and assignments, seminar presentation and participation in local festivities.

Units and Topics

- Travel and tour operations.
- How to organize and manage travels and tours.
- Networking with tour operators.
- Knowledge about local happenings.
- Festivities, cultural shows etc.

7.14 Health Skills

The aim of this subject is to introduce the trainees to the concept of living healthy lifestyles that influence their work, workplace and the environment. The focus is on 'healthy workers and healthy tourists'. Instruction on tourists' health care is a special feature. Students will be introduced to basic health science in biology and help them develop necessary theoretical and practical skills in personal health, healthy food, fitness, rest and exercise. Discussions and group projects will be introduced on first aid, AIDS/HIV virus, sexually transmitted diseases, safe water, and sanitation. Health of the community and environmental issues are covered. Students will learn to construct water wells and VIP (improved ventilated latrines) pit latrines. Teaching methods include teaching, demonstrations, discussions, debates, practical exercises and guest speakers. Assessment is based on written tests, seminar presentations and project report.

Units and Topics

- Concept of healthy lifestyles.
- The importance of living organisms.
- Traditional beliefs and health.
- Tourists’ health.

- Personal health cares.
- Adequate nutrition, rest and exercise.
- Common sense and habits/addictions.
- Sexual health and AIDS/HIV virus.

- Workplace, community and environmental health issues.
- First Aid.
- Safe water supply.
- Sanitation.

- Other health skills.
- Constructions – wells and VIP latrines.

7.15 Bookkeeping

The aim of this subject is to teach trainees bookkeeping skills. Students will learn basic manual and computer bookkeeping systems and operations, capital assets and liabilities, record keeping of daily intakes and payments, and general management of accounts. Methods of teaching include teaching, demonstrations, guest speakers and practical exercises. Assessment is based on written tests and project assignment.

Units and Topics

- Bookkeeping systems and operations.
- Computer.
- Computer literacy.
Managing accounts.
- Record keeping.

7.16 Money and Banking

This subject teaches the trainees about the value of money and its importance in the cash economy in contrast to the traditional subsistence economy. The trainees are introduced to the role of banks, types of accounts, foreign currency exchange and the concept of liabilities, debts, savings and profit making, investments and risks involved. Methods of instruction include teaching and demonstrations, guest speakers and excursion to a commercial bank. Assessment is based on written tests and assignments, and excursion reports.

Units and Topics

- Traditional subsistence and cash economy.
  - The dichotomy of traditional and modern cash systems.
  - Wealth value systems.
  - The value of money.

- The banking system.
  - The role of banks.
  - Services available to customers.

- Investment planning.
  - Types of investments.
  - Risks involved.

7.17 Introduction to Tourism Legislation

The aim of this subject is to introduce trainees to laws and regulations within the tourism and hospitality industry. Topics covered include PNG public health regulations on food and beverages, and liabilities, regulations for business operations by tourist operators such as hoteliers, travel agencies and passenger/cargo transport operators. Insurance coverage for local, national and international travellers and operators are also covered. Methods of instruction include teaching, guest speakers and excursions. Assessment is based on written tests and assignments.

Units and Topics

- Public health regulations.
  - Types of health laws and liabilities.

- Insurance coverage.
  - Types and benefits.

7.18 Sewing for Tourism

The aim of this subject is for the trainees to acquire basic stitching skills for sewing and repairing items such as bedsheets, curtains, pillowcases, teatowels, cushions, aprons, potholders, uniforms, handkerchiefs and patching and repairing damaged, torn clothing items. Sewing basic stitches, use of the sewing machine, care and repairs are covered. Methods of teaching may include teacher presentations, discussions and workshops on actual stitching. Assessment will be based on finished sewn articles and assignments on sewing machine and stitches.
Units and Topics

- Basic stitching skills.
  - Types of hand stitching.
  - Stitches using the sewing machine.

- Sewing machines.
  - Use, care and storage.

- Creative sewing for tourists.
  - What do tourists like?
  - Types of articles.
  - Designing patterns, styles, size and colours.

7.19 Handicrafts

The aim of this subject is for trainees to revive, recreate, design and develop PNG handicrafts suitable for the tourism market. The students will learn about types of traditional crafts, their functions, materials and instruments used to making them, size, designs and colours, durability, quality and pricing of items. Methods of teaching include teaching, demonstrations, local guest speakers/trainers and visit to a craft market where possible. Assessment is based on handicraft projects and presentations.

Units and Topics

- PNG handicrafts.
  - Types of articles.
  - The value of crafts.

- Ideal handicrafts for tourists.
  - Types of articles.
  - Quality of items.

7.20 Managing Tourism Resources

This subject aims to train the trainees to be able to manage both human and natural resources as they relate to the tourism and hospitality industry. Resources such as people, time, energy, effort, food, fuel, kitchen and sewing equipment and facilities, petrol, firewood, water, electricity, telephone, boats, vehicles, computers, television, VCR, films, slides and film/slides projectors. Methods of instruction include teaching, demonstrations and simulation games. Assessment is based on written tests and project report.

Units and Topics

- Human resources.
  - The value of people.

- Natural resources.
  - Types and uses.

- Why manage resources?
  - The benefits.
7.21 Project 1: Promotion of Tourism

In the First Year Semester 2 and Term 2, individual students are given an opportunity to demonstrate an innovative idea promoting or marketing tourism in PNG. Although supervised and guided students must develop their own practical component to illustrate or visualize the idea. Teaching methods may engage teaching, discussions and workshops. Assessment includes a typed report of progressive development of idea (with illustrations), seminar presentation and actual finished product.

7.22 Project 2: Promotion Tourism

Following on from Project 1, Project 2 involves group work. This leads to an ‘open-day’ to be organised by the advanced students once a year to display and demonstrate their creativity. At the same time it will promote vocational training as a worthwhile training option. This course will be taught in the Second Year Semester 2, Term 2. Teaching methods include teaching, discussions, and group work in the form of workshops. Assessment will be based on a typed report of progressive development of idea, its eventual application (including pictures or illustrated diagrams), oral and practical participation in the form of the ‘open-day’.

7.23 Basic Computing

Introduction to basic computer touch-typing and word processing will be taught as an elective and there will be a short course to meet specific client needs. Computer procedures and basic skills are covered. Methods of teaching focus on touch-typing and computer applications, exercises, and teaching and on one-to-one instruction. Assessment will be based on typing assignment exercises and tests.

Units and Topics

- Computer touch-typing.
  - Keyboarding.

- Microsoft word processing.
  - Accessing.
  - Applications.

- Other computer skills.

7.24 Internship

Advanced trainees will have the privilege to choose to work as assistants in the training centre and/or other similar establishments. The internship takes place in the final year in term one during the second semester. This provides hands-on work experience enhancing and reinforcing acquired skills and knowledge. At the same time the advanced student interacts with the work environment hence allowing staff to check appropriate behaviour and social skills. A daily journal of activities will be kept by the advanced student throughout the entire internship period. This will be translated into a typed, one to two page summary report on the experience to be included as part of the final assessment.

8. Curriculum Support Resources
The resources required to promote tourism in PNG are many. The following is a list of resources suggested for the effective training of tourism and hospitality trainees. The list is by no means exhaustive. Others may be added or deleted depending on the situation of vocational centres and other training establishments. The details of cost of items, brand names and quantities required are not given at the time of writing. Again, the costs will depend on each centre’s existing resources and the need to acquire new ones.

Table 8.1 Resource Inventory

<table>
<thead>
<tr>
<th>Name of Item</th>
<th>Brand Name</th>
<th>No Required</th>
<th>Cost Per Unit</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resource</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers, trainees and other staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration &amp; Maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure, PNG flag, offices, telephone, water, garbage collection, maintenance tools &amp; supplies</td>
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</tr>
<tr>
<td>Building and Facilities</td>
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<tr>
<td>Dormitories, toilets, classrooms, staff house, recreation</td>
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<td></td>
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<tr>
<td>Transportation</td>
<td></td>
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<tr>
<td>Vehicles, boats, bicycles, roads</td>
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<tr>
<td>Furniture and Equipment</td>
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<tr>
<td>Chairs, tables, desks, filing cabinets, beds</td>
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<tr>
<td>Library</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Books, posters, pamphlets</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching Equipment &amp; Materials</td>
<td></td>
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</tr>
<tr>
<td>Chalkboard, facsimile, whiteboard, typewriter, printer, xerox, computers, Television, video, camera, cassette/CD player, radio, guitar, slide projector, kitchen supplies, apron, costume, uniform, handicrafts</td>
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<tr>
<td>Food</td>
<td></td>
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<tr>
<td>Food &amp; beverage supplies</td>
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<td></td>
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<tr>
<td>Recreation/Entertainment</td>
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<tr>
<td>Sports equipment &amp; facilities, play field, cultural performance gear</td>
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</tbody>
</table>