SETTING REGIONAL BENCHMARKS FOR LITERACY, NUMERACY AND LIFE-SKILLS TO MONITOR THE QUALITY OF BASIC EDUCATION IN THE PACIFIC REGION

Background

For many years now there has been various concerns raised about the relevance of the formal basic education systems in Pacific Island countries. Tertiary institutions noted with concern the lack of literacy and numeracy skills and employers complained about the lack of life-long and life-skills of students completing basic education. There are also concerns that the formal education systems are alienating students from their cultures, and not providing them with appropriate livelihood and psychosocial skills. Students were being trained in a system that was biased towards academic areas and issues of personal hygiene and well-being, social and interpersonal skills were being ignored.

Thus there were many pleas to improve the quality of formal basic education. It was expected that students of formal basic education should have the skills to live happy, health and productive everyday lives. Literacy and numeracy were two of these skills areas. Over the last few years SPBEA has been supporting its member countries to develop and monitor their national levels of achievement in literacy and numeracy for basic education. Gaps in literacy and numeracy are being identified at the national levels and intervention strategies being considered.

Life-skills, livelihood and life-long skills were used interchangeably in the Pacific and are much more difficult to assess. In July, 2006, SPBEA partnered with UNESCO and UNICEF to host a week's workshop of 13 regional countries to develop regional definitions and benchmarks for literacy, numeracy and lifeskills. These definitions and benchmarks were endorsed by Ministers of Education in September, 2006. A follow-up workshop to refine the life-skills definition and indicators was held in November 2006. The regional benchmarks will now be used to develop assessment instruments to measure literacy, numeracy and life-skills.

From the experience gained when supporting countries to develop their literacy and numeracy monitoring instruments, it is crucial that special programmes be put in place to effectively support countries to develop national life-skills benchmarks and monitoring instruments. The results from these assessment instruments will highlight gaps in students' life-skills and thus enable teachers to develop intervention strategies and thereby improve the quality of formal basic education and enable the learners to cope with the various pressures of living in the Pacific Islands in these changing times.

The benchmarks are appended and have been circulated to countries for comments. Member countries may wish to use the benchmarks as the basis for measuring and/or monitoring the quality of basic education in the areas of literacy, numeracy and life-skills in their countries rather than against each other.

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(final version 22 Nov. 2006)

Monitoring is obligatory at year 4 and also at year 8. It is also recommended to have monitoring at year 2 as well so that the impact of preschool education in each country can be measured. Thus instruments could be developed and administered to students at years 2, 4, 6 and 8. One of the goals of FBEAP states: "To ensure access and equity and improve quality and outcomes." In order to improve the quality of education we need to measure it, the benchmarks developed could perform that task.

There has never been a real measure of literacy, numeracy or life-skills in the Pacific Region¹. These regional benchmarks will be applied to students between the ages of 6 and 15 for those in the formal system. The literacy and numeracy levels of those outside the formal system will also need to be measured. For persons over the age of 15, stratified sample surveys will be conducted.

The benchmarks are the first step in a three step process, where we measure quality, then develop intervention strategies, and finally measure quality again to evaluate the effectiveness of the intervention strategies. This cycle should be repeated.

The four agencies, UNESCO, UNICEF, PRIDE and SPBEA will collaborate in areas where their mandates overlap to avoid duplication and confusion in countries and to bring about better donor harmonization. This partnership is based on equal rights, authority and technical input. Aims of projects to be undertaken in such partnerships will be clearly defined with measurable outcomes resulting in quality education.

¹ A common practice is to consider those with no schooling as illiterate and those who have attended grade 5 of primary school as literate.

PACIFIC DEFINITION OF LITERACY:

"Knowledge and skills necessary to empower a person to communicate through any form of language of their society, with respect to everyday life"

A person is considered to be functionally literate if she/he has acquired the necessary knowledge and skills to be able to communicate effectively through any form of language of their society, with respect to everyday life.

The literacy status of a person between the ages of 6 to 14 years will be determined nationally and regionally (if required) by referencing his/her literacy skills to the indicator outlined below. However, a person is considered to be functionally literate if he/she has completed four years of formal education and has met the indicator outlined for Year 4.

| Skill Component | Year 2 Indicators (7 – 8 yrs) | Year 4 Indicators (9 – 10 yrs) | Year 6 Indicators (11 – 12 yrs) | Year 8 Indicators (13 – 14 yrs) |
|--------------------|--|--|---|--|
| Listening | Understand and respond to texts | Listen, understand, respond and question texts | Listen, understand, respond and critically question texts/genre | Listen, understand, response and critically question an increasing variety and complexity of texts |
| Speaking | Understand, speak, question and respond to texts | Understand, speak, question and respond in various genres/texts | Understand, speak, critically question and respond in various genres/texts | Understand, speak, critically question and respond to an increasing variety of complexity and texts |
| Writing | Illustrate and write a story | Write and present ideas in a variety of genres/texts that demonstrate the basic use of writing mechanics | Writing and presenting ideas including critical analysis in a variety of genres/texts that uses writing mechanics (appropriately). | Writing and presenting ideas in a variety of genres including critical analysis Greater command of writing mechanics Using an increasing variety and complexity of texts |
| Reading | Read, understand and respond to texts | Read, understand, question and respond to a variety of genres/texts | Read, understand, question and respond critically to a variety of genres/texts | Read, understand, question and respond critically to an increasing level of complexity and variety of genres and texts |

PACIFIC DEFINITION OF NUMERACY:

"Knowledge and skills necessary to empower a person to be able to use numbers in mathematical processes, as well as the language of mathematics, for a variety of purposes, with respect to every day life"

A person considered to be functionally numerate is therefore someone who has acquired the necessary knowledge and skills to be able to use numbers effectively in mathematical processes, as well as the language of mathematics, for a variety of purposes in everyday life not only within the society he/she lives but beyond.

The numeracy status of a person between the ages of 6 to 14 years will be determined nationally and regionally (if necessary) by referencing his/her numeracy skills to the benchmarks outlined below. However, a person is considered to be functionally numerate if he/she has completed four years of formal education and has met the numeracy benchmark outlined for Year 4.

| Skill Component | Elements | Year 2 Indicators (7 – 8 yrs) | Year 4 Indicators (9 – 10 yrs) | Year 6 Indicators (11 – 12 yrs) | Year 8 Indicators (13 – 14 yrs) |
|--------------------|------------------------|--|---|--|---|
| | Counting Objects | Represent number of objects using numerals from 1 to 20; | Represent numbers using numerals from 1 to 999 | | |
| BERS | Recognizing Numbers | Identify and write numbers up to 99; | Identify and write numbers in numerals and in words up to 999; | Identify and write numbers in numerals and in words up to 9999; | Identify and write numbers in numerals and in up to 1 million; |
| NUMB | Place value | | Identify and write 3-digit whole numbers and decimal numbers up to 2 decimal places; | Identify and write 4-digit whole numbers and decimal numbers up to 3 decimal places; Round off numbers up to 2 significant figures and 2 decimal places; | Identify and write whole numbers and decimal numbers up to 3decimal places; Round off numbers up to 3significant figures & 3decimal places; |

| | Fractions & Percentages | Relate parts of an object to the whole; Identify denominator & numerator in a fraction; Illustrate part of a whole as a fraction and as a %; | Convert simple fractions to % ; | Convert fractions to decimals, decimals to fractions, fractions to % & % to fractions; |
|------------------|----------------------------|--|--|--|
| NUMBERS (cont'd) | Relations | Read and write sentences involving greater than, less than and equal to using numbers up to 999; | Read, write and compare numbers using <, > and =; Identify, write and describe simple number patterns for factors and multiples; | Identify, write and describe other number patterns; Generate subsequent numbers or objects in a pattern; |
| NUN | Measurement | Measure; length and height of objects; 2. use appropriate units in measurement above; | Measure; length, mass, area, perimeter, angle | Measure; length, volume, perimeter, mass; Calculate: perimeter, area and volume of circles and regular shapes; Construct; angles and regular shapes; |

| Skill | Flamanta | Year 2 | Year 4 | Year 6 | Year 8 |
|------------|-----------------|--|---|--|---|
| Component | Elements | Indicators (7 – 8 yrs) | Indicators (9 – 10 yrs) | Indicators (11 – 12 yrs) | Indicators (13 – 14 yrs) |
| TIONS | Addition | Know the symbols;+, - ,=; Add two 1-digit whole numbers between 1-9; | Add up to three 1- to 2- digit whole numbers with multiple regroup; Solve simple problems on everyday use of addition; | Add up to three 1- to 4- digit whole numbers with and without regroup; Add proper fractions with 1- or 2-digit denominators that are equal or are multiples; Add decimal numbers with up to 2 decimal places; Know how to add '0' in both whole and decimal numbers Solve simple problems on everyday use of addition; | Add up to 4-digit whole numbers with and without regroup; Add proper and improper fractions with same and different 1- or 2-digit denominators; Add decimal numbers with up to 3 decimal places; Solve problems on everyday use of addition to the level indicated above; |
| OPERATIONS | Subtraction | Subtract two 1-digit whole numbers between 1 and 9; | Subtract up to 2-digit from up to 3-digit whole numbers with and without regroup; Solve simple problems on everyday use of subtraction; | Subtract two 1- to 4-digit whole numbers with multiple regroup; Subtract proper fractions with 1- or 2-digit denominators that are equal or are multiples; Subtract decimal numbers with up to 2 decimal places Subtract numbers involving '0' in both whole and decimal numbers with 2 decimal places; Solve simple problems on | Subtract two numbers up to 4-digits whole numbers with multiple regroup; Subtract proper and improper fractions with up to 3-digit denominators; Subtract decimal numbers with up to 3 decimal places. 4. subtract numbers involving '0' in both whole and decimal numbers with 3 decimal places; Solve problems on everyday use of |

| | | | | everyday use of | subtraction; |
|----------------|----------------|----|---|--|--|
| | | | | subtraction; | |
| (cont'd) | Multiplication | di | ultiply 2-digit by 1- git whole numbers ith and without group, | Multiply up to 3-digit by or 2-digit whole numbers with and without regroup | 3-digit whole numbers with |
| OPERATIONS (co | Division | | | Divide 2-digit whole numbers by 1-digit factor Use order of operations to simplify expressions involving 2 operations; 3. solve simple problems everyday use of the four operations; | whole numbers with and without remainder; Divide up to 2 decimal numbers by up to 2-digit |

| | | | | | (Jindi version 22 Nov. 2000) |
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| | | Recognize the | Recognize the money | Calculate total costs of | Calculate total costs of |
| | | face and | value of items in | shopping with 3 different | shopping with up to 4 |
| | | relative value of | shops, market, etc; | items (include decimals); | different items (include |
| | | common | _ | | decimals); |
| MONEY | Recognize and use money | denominations; | Calculate costs of shopping with 2 items (in whole value only); Calculate changes from shopping; | Calculate the change from shopping; Calculate the unit cost of items in shopping; | Calculate the change from shopping; Calculate the unit cost of items in shopping given bulk cost; |
| | | | | | Solve simple everyday |
| | | | | | problems involving 2 |
| | | | | | operations; |

| Skill | Elements | Year 2 | Year 4 | Year 6 | Year 8 |
|-----------|----------|--|---|--|---|
| Component | | Indicators (7 – 8yrs) | Indicators (9 – 10 yrs) | Indicators (11 – 12 yrs) | Indicators (13 – 14 yrs) |
| TIME | Time | Associate daily activities with part of day e.g. morning, afternoon, evening, night with breakfast, end of school, dinner and sleep; | Identify short/long hand or 1 st /2 nd number (digital) with hour/minute; Understand am/pm in relation to time of day; Tell time from clock face or diagram (but limit to o'clock, quarter past/to and half past); | Tell time from clock face or diagram; Calculate time difference from clock; Solve simple everyday problems on time and duration; | Tell time from clock face or diagram (no limit); Identify start/finish time of events and calculate duration; Solve simple everyday problems on time and duration; |

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| | | Tally given sets of discrete | Represent data on graph |
| | | data; | (bar, pie, column, picture); |
| ATA | Data | Represent data on graph (bar or picture); Interpret data on graph based on heights of bars | Interpret data on graph based on heights of bars (bar graph), area of sector and number of pictures (pictograph); |
| | | (bar graph) and number of pictures (pictograph); | Calculate the mean, |
| | | Know and calculate the | median, mode and range of |
| | | average of discrete data; | a set of discrete data; |

PACIFIC DEFINITION FOR LIFE SKILLS

Knowledge, skills, attitudes, values and behaviours embedded in the local (and embracing the global) context which empower an individual to improve and sustain suitable quality of life in their community and beyond.

| | Life Skills Indicators for years 4 and 8 | | | | | |
|-----------------|---|--|---|--|--|--|
| Components | Elements | Year 4 Indicators (9 – 10 yrs) | Year 8 Indicators (13 – 14 yrs) | | | |
| N AND SKILLS | 1.Interpersonal communication skills | Express verbally by using the correct and appropriate forms of language i.e. respect, vocabulary, etc. Use appropriate gestures i.e. signs Respond accordingly to the situation involved | Respond appropriately to a variety of different audiences Use verbal and non-verbal features appropriately when participating in different situations | | | |
| | 2. Empathy | Know and express themselves in what they are and who they are. Show consideration for others in comparison to themselves. | Use a wide range of language and non- language features to allow children to express and compare themselves | | | |
| | 3.Negotiation/ Advocacy Skills | Are prepared to listen, share and arrive at a consensus Take turns during discussion, Help and/or support each other by persuading them to take part in discussions and activities | • Participate in groups to use a variety of communication strategies to negotiate e.g. seeking clarification, agreeing to decisions (same skills – further developed and practiced in the wider community) | | | |
| CC | 4. Cooperation and Teamwork | • Work together as a team in whatever circumstances i.e. sports/group work | • Develop and demonstrate various roles played in different groups in society | | | |
| | 5. Refusal skills | Assert with respect of one's opinion | Assert one's opinion using a variety of strategies | | | |

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| AL THINKING SKILLS | 1.Decision making | Identify what the issue is Gather information relevant to the issue using a variety of sources and mediums Sort the information gathered into meaningful order Identify options and impact of alternate decisions Justify decision made | Describe factors which impact on decision-making process Gather information relevant to the issue using a variety of relevant sources and mediums Analyse the information they have gathered Evaluate the options and impact of alternate decisions Justify decision made |
| MAKING AND CRITICAL | 2.Problem solving | Identify what information is required Gather information using a variety of sources and mediums Identify the different stages of the problem-solving process Identify the options and impact of alternate solutions Justify recommendation for resolving the problem | Sort information required to solve a problem Gather and sort information from a variety of sources and mediums Utilise the problem-solving process to identify and describe solutions Compare possible options and describe the most viable solution Justify recommendations of solutions. |
| DECISION-MAKING | 3.Critical thinking | Identify the influence of factors such as the media, peers, the community and the church Identify reasons for their choice for action. | Describe and evaluate the influence of factors such as the media, peers, the community and the church Prioritise and justify choices in order of preference |

| | | | (final version 22 Nov. 2006) |
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| | | Identify their strengths, weaknesses and potentials | Assert their strengths and acknowledge their weakness. |
| STILS | 1. Self Awareness | Differentiate between rights and responsibilities. | Take appropriate actions in different situations |
| T SK | | Identify their uniqueness and value. | Use uniqueness constructively in any given situation. |
| SELF-MANAGEMENT SKILLS | | Express their thoughts and feelings in a constructive manner. | Express their thoughts and feelings and formulate ways of resolving conflicts. |
| NAGE | | Identify the strong emotions and feelings such as anger, anxiety, frustrations, loss etc | Assert their strengths and acknowledge their weakness. |
| P-MAI | 2. Skills for | Share their feelings and emotions openly with peers | Take appropriate actions in different situations |
| | managing feelings | Identify support services and/or appropriate persons. | Use uniqueness constructively in any given situation. |
| AND | | | Express their thoughts and feelings and formulate ways of resolving conflicts. |
| COPING AND | | Identify causes of stress. | Describe ways of managing stressful situations for each cause. |
| сон | 3. Skills for managing stress | • List activities that can help the management of stress. | Use these activities to manage stress. |
| | | Prioritize a number of tasks within a given time according to their importance. | Develop positive thinking and make informed choices |

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| STIIXS GOOHI | 1.Technical/ Vocational skills | Demonstrate that they can use appropriate knowledge and skills competently in the relevant skills areas Learn and apply all required skills and knowledge in any given situation both within and outside the school environment Identify and use basic tools safely to produce products e.g. handicrafts Observe and follow instructions to complete a product Demonstrate basic techniques e.g. weaving, sewing and cooking Plan and draw simple, original designs of any product | Use simple techniques to make joints and cuttings Apply production techniques & team work to construct any product Undertake management practices to grow crops, raise animals, fish breeding for both subsistence and commercial Assess products for improvement purposes |
| PRACTICAL/ LIVELIHOOD SKILLS | 2. Traditional knowledge and skills | Identify and demonstrate the traditional/cultural values, knowledge and skills of their society | _Demonstrate how traditional/cultural values, knowledge and skills are used in their daily lives. _Demonstrate how traditional/cultural values, knowledge and skills affect their learning and behaviour Analyse and critically evaluate their own beliefs and knowledge and how these affect how they learn in classrooms and beyond Critically analyze, evaluate and predict traditional/cultural changes and effects Utilise modern technology to enhance performance of traditional/cultural practices. |

| CONTEXTUAL/ ISSUE BASED | 1. Health | Identify the characteristics of well-being (clean, happy, confident, safe, secure, pain-free, sociable) Identify practises that promote good health Identify behaviours that can threaten their well-being (smoking, excessive sweets, poor nutrition, lack of physical activities, disruptive, uncooperative, sexual abuse, HIV, STI, substance abuse.) Identify appropriate support services and persons, students can confide in when they feel threatened, basic information about nutrition; sex education} | Describe behaviours that can threaten their well-being (smoking, excessive sweets, poor nutrition, lack of physical activities, disruptive, uncooperative, sexual abuse, HIV, STI, substance abuse etc.) To explain the benefits of practices that promote good health Demonstrate good decision-making skills that enhance well-being |
|-------------------------|-----------------------------------|---|--|
| | 2. Gender awareness | Identify instances of gender stereotyping inside the classroom. Identifying traditional role of boys and girls in the community Identify opportunities for boys and girls in school Participate in activities in the classroom traditionally regarded as the role of the other gender. (e.g., technology, cleaning up of the classroom) | Describe problems of "gender" preferences inside the classroom Describe problems of traditional role of boys and girls in the community Describe concerns of unequal opportunities for boys and girls in school Students participate in gender equity activities. |
| | 3. Civic Education/ governance | Recite and sing the national anthem Respect for and observe the flag raising ceremony Show respect for their school and class mates Observe the rules and regulations of their school and society List the key rules of the school | Describe the significance of the national anthem and the flag raising ceremony Participation in oral and public speaking on peace themes Public display of pride in being a citizen of their country in various ways Observe and show support of multiracialism through participation in cultural activities of other cultural groups Show understanding of the basic principles of human rights |

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| CONTEXTUAL/ ISSUE BASED (cont'd) | 4. Environment | Show care for the immediate surrounding of the school environment Identify factors that contribute to a clean environment. Maintain a clean environment in the classroom and whole school. | |
| | 5. Entrepreneurial & Financial Management skills | Identify items that are important in their daily lives. Identify the monetary value of items State the importance of bartering system. | Describe items that are important in their daily lives. Describe the features and importance of money. Demonstrate and apply efficient & effective resource utilization Demonstrate and apply efficient & effective marketing strategies Demonstrate and apply risk-taking skills Assess Risks |
| | 6. Sports/ Physical Education | Participate in sporting activities List the rules of the activity Develop skills related to appropriate sports Develop skills in teamwork State the importance of physical exercise | All indicators in Y4 plus: Participate regularly in training to develop more complex skills. Describe the importance of fitness training. |

COMPONENT STATEMENTS FOR EACH PACIFIC LIFE SKILLS

A) Psycho-social Behavioural Skills

I- Communication and Interpersonal Skills:

- **Interpersonal communication skills**: Enable children to interact verbally/nonverbally with others through active listening and by expressing feelings and feedback constructively
- **Negotiation/refusal skills**: Enable children to deal effectively with conflict they encounter in their daily lives, firmly, decisively and confidently
- **Empathy**: Being able to empathise involves understanding others; anticipating and predicting their likely thoughts, feelings and perceptions. It involves seeing things from another's point of view and modifying one's own response, if appropriate, in light of this understanding
- **Cooperation and Teamwork**: Enable children to respect each other's ideas abilities, values, contributions and different styles when working together. They use these skills to support, share and learn from each other
- **Advocacy Skills**: Enable children to champion ideas while actively working with others. They use these skills to influence and persuade others to investigate/consider different ideas, strategies, solutions and values and share ideas openly

II- Decision-Making and Critical Thinking Skills:

- **Decision making skills:** Enable children to develop decision making skills by gathering, evaluating and analyzing information and determining solutions to the problems
- **Problem solving skills:** Enable children to develop problem solving skills by gathering, evaluating and analyzing information and determining solutions to the problems
- **Critical thinking skills:** Enable children to develop critical thinking skills in analyzing influential factors and how they impact on their lives

III- Coping and Self-Management Skills:

• **Self awareness**: Enables children to understand, accept who they are and have a healthy self-image. They use this understanding to organize themselves, set goals and plan their learning to meet everyday challenges.

- **Managing Feelings**: Children use a range of strategies to recognize and cope with their feelings. They know when, where and how to get help. They can use this to maximize their behaviours and to regulate their learning. They demonstrate resilience in the face of difficulties.
- **Managing Stress**: Children use a range of strategies to cope with demands/expectations placed on them from their parents, schools, peers and external pressures.

B) Practical/Livelihood Skills

- Technical/ Vocational skills (Including Agri/Aqua-culture/ Cooking/Computer Literacy/ Science): To enable students to acquire specific and practical knowledge and needed skills which are appropriate and relevant for their competent use in their daily lives.
- Traditional Knowledge and Skills (e.g. Arts & Crafts, traditional medicine, recognizing diversity rooted in identity, traditional notions of land and sea etc.): Enable children to appreciate and understand their values, knowledge and skills learnt from previous generations and to be able to use these as a basis for survival in their own changing environment.

C) Contextual/Issue based

- **Health**: To enable students to acquire specific and practical knowledge and needed skills which are appropriate and relevant for their competent use in their daily lives: recognize and appreciate the elements and importance of well-being; make informed decisions for healthy actions and behaviours; apply skills to manage pressures/ challenges/ threats that impact on their well-being (such as substance abuse, all forms – physical, verbal, sexual abuse, sexuality, relationships, violence, nutrition, NCDs); advocate good health.
- **Gender**: Enable children to relate to genders by recognizing their own roles while at the same time appreciating the differences between the genders. It involves being open-minded and accepting full participation in all situations
- **Civic Education/ Governance**: The creation of awareness in children of their duties to their countries, and knowledge of the processes of governance. To take pride in being a citizen of their country and t o learn to behave in a manner that helps promote their civic duties, a love for a clean and healthy country, maintenance of peace, observance of law and order and the rights of other people.
- **Environment**: Enable children to acquire and apply knowledge, demonstrating an understanding of the environment

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(flora/fauna/water/air/land). Developing an awareness and respect to manage and conserve ensuring sustainable use of resources through balanced traditional and modern practices.

- **Entrepreneurial & Financial Management Skills**: Enables children to utilize resources efficiently and effectively producing marketable commodities/ services and to take risks in the business environment so as to generate maximum profit.
- **Sports and Physical Ed :** Children to be able to appreciate/ take part in physical activities including traditional games and develop their skills by knowing the rules, teamwork and individual skills, fitness training and good sportsmanship during school years and beyond