

THE SOCIALLY RESPONSE-ABLE MATHEMATICS
EDUCATION PROJECT

Who is my Neighbour?

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Rationale

St Mark's has a history of fund-raising for a large number of charitable purposes. Each year group raises money for a chosen purpose as they progress from Year 8 to Year 12. So entrenched is this tradition that students take this annual exercise for granted.

This year (2008), it was decided that St Mark's Year 8 cohort would provide assistance to a small school in Alice Springs. The target school was reputed to be providing a successful reading programme (using texts in English) as well as all students learning their native language.

The Year 8 students were requested to bring stationary materials and used reading books to be taken up to the school by a delegate group of students later in the year.

The project was intended to assist the students in providing answers to the following questions.

1. Is fund raising for this cause justified?
2. If so, is this the best way to provide assistance?

It was also intended to provide the students with an opportunity to decide for themselves on the appropriateness of this fund raising issue rather than just accept it without question. A further goal was to raise the students' awareness of the relevant social factors involved and encourage some reflection on values and judgments arising from the data and mathematical analyses of each task. It was hoped that the tasks may encourage some students to question previously accepted values.

Finally, at the conclusion of all the tasks, it was expected that the students would have enough information available to them to sensibly comment on the issue as a whole and the actions being taken.

Description of Activities

Activity 1 Location, Distance and Environment

Students encounter estimation, scale, reading map legends, basic operations with whole numbers, fractions and percentages as they compare the physical location and distances involved.

Students “construct” a description of the other school’s environment from prior knowledge.

Activity 2 Comparison of Schools

Students encounter constructing and interpreting bar graphs, a timeline and fractions.

Students “construct” a description of an independent school’s environment compared to a government school environment from prior knowledge of their own situation.

Students “construct” a description of what stereotypes or generalizations they have about people – people in Perth, at St Mark’s, then about people in other parts of Australia, in country towns, other cultures, other people groups.

Activity 3 Non Government School Funding

Students encounter reading data from text, interpreting graphs, making comparisons and drawing conclusions from graphical data.

Students encounter SES and the significance of the measures attributed to schools and communities and comparison across the States.

Activity 4 Socioeconomic Status of Schools

Students encounter ranking and how to deal with equally ranked items, interpreting pie chart, calculating and comparing ratios

Students interpret a definition of marginalization in terms of the analyses of the mathematical data

Activity 5 Success of School to be Supported

Students encounter reading, interpreting and comprehending data from text, two way tables, percentage and fraction calculation and general comparisons.

Students interpret the Project School's success in terms of the analyses of the mathematical data provided in Press Releases.

Activity 6 Analysing Proposed Support

Students encounter reading and interpreting data from tables, calculating averages, concept of weighted average, calculating costs, estimating and comparing costs.

Conclusion Final Decisions on Aid Support

Students identify the facts provided by each Activity and then attempt to justify the fundraising project with mathematical facts and the aid quality principles to support their decisions. Student answers can also include reference to any impact of the activities on student awareness and values.

A further class discussion can occur on more general issues of fundraising and support and does increased awareness and mathematical justification empower the students in their decision making (in this specific case and in general).

Implementation Timeline

The six Activities plus the Conclusion Task require at least 4 to 5 weeks to cover in classes in Year 8 as some of the concepts may be new and many may need revision and remediation both prior to and during the lessons when the Activities are being done by the students.

The Project could be included in the normal teaching programme if it were spread out across a Term and the Activities done either as a revision of the concepts contained or as an authentic and relevant reason for the students to acquire the mathematical skills needed to complete the tasks involved.

Collaboration with a SOSE class could see some of the discussion required at the conclusion be included in that class's programme.

Students' Mathematical Learning

Part A – Skills and Concepts

Outcomes appropriate to the Year 8 mathematical programme can be readily identified in the worksheets

The following are examples of the non-content outcomes selected from some of the activities. Teachers will readily identify more as the students work through the activities

Part B – Appreciating Mathematics

Confidence with Mathematics

Activity 1

Students were able to estimate distances on a scaled map and through their knowledge of mathematics, establish a degree of remoteness of the school in question.

Students were able to predict a likely environment of the school in question from the mathematical facts elicited from the activity and their own prior knowledge.

Contextualising Mathematics

Activity 3

Students were able to make inferences from the data that impacted on their place in society and raised issues of justice with regards to funding for their own education.

Part C – Working Mathematically

Reason Mathematically

Activity 1

Students made conclusions based on comparative distances obtained from a scaled map.

Mathematical Strategies

Activity 3

Students interpreted graphical data and converted it to a variety of number and statistical estimates in order to make a mathematically reliable comparison.

Students' Social World Learning (Selected examples)

Activity 1

Students personalised the activity when they discussed the possible environment in the remote area. The first comment volunteered by a student was the fact that it was a long way from the surf, so not many surfers would live there. They were able to draw on other knowledge suggesting a dry, hot and barren countryside. Big city resources were seen to be in short supply and it quickly became obvious that they considered it to be a quite different living environment from the one in which they live.

Activity 3

Students not only personalised the activity on behalf of the school in question but took the process further by comparing SES funding across Australia as a whole. They then became quite indignant when they realised that WA presented as being below the average across the country. They were not impressed that it appears that WA was one of the States that is considered to be “less well off”. This initiated much discussion on issues of social justice in their world and the world at large.

What Succeeded?

Student involvement in the mathematical concepts in all the activities was quite successful. Combining all the mathematical ideas with authentic and relevant data which students could all personalise was not consistently successful.

What Needs Improving?

In the first activity, students struggled with fraction and percentage concepts. So some revision of these concepts prior to the lesson would have been advantageous. Some of the other activities did not engage students at the personal level as might have been expected.

In hindsight, it would have been a better idea to involve the students in the discussion of what factors might need to be established in the project. Then they could have contributed to the mathematics needed to support or refute these factors. It would also have created an earlier focus on the social and

Evidence of Engagement

An obvious example was the interest and engagement displayed by the students with regard to SES funding (Activity 3) and their relating the government score to their own personal situation and questioning the justice of the situation.

A further example was the way the students “constructed” a background for the environment in the middle of Australia using their own background as a referent (Dry, hot and a long way from the surf.).

Initially, a problem occurred with perception. The worksheets and tasks didn’t look like mathematics so the first reaction was one of disengagement. The initial attitude presented was one of “This is not real mathematics”.

Reflections and Observations

This project was initially intended to be presented as a sample of what might be possible as a Socially Response-Able Activity in Mathematics. However, as it progressed it began to take on a character of its own. Once started, each activity seemed to generate the need for a following and sequential activity as a natural consequence of the investigation. In some ways it becomes a “living or self directing” identity providing future direction for itself as a consequence of its own history.

Another important aspect that emerged from the development of this project was the realization that these types of activities cater so well to the modern generation of students with regard to the following factors:-

1. Today’s students are not interested in analysis of trumped up data with no relevance.
2. Equally, they are not interested in doing mathematics on data which is not authentic.
3. They also need to identify a purpose – they don’t have the time to waste on meaningless and irrelevant activities.

A further really important aspect was that these activities provided a contextual environment to discuss the “extended” features of basic mathematical concepts – like

“How can 3% be one student?”

“When is 0.1 % a significant amount?”

“How can we comprehend huge amounts (of money or populations of millions or billions)?”

A by-product of these types of activities also appears to be the realisation that mathematics can be enabling an empowering for students as a tool to help them to make decisions about real world situations, especially ones that may affect them personally.

As teachers, we often make value judgements on behalf of the students we teach instead of inviting them into the process. These activities can help students realize that they do have values and opinions of their own and allows them to become more critical in their thinking about issues in their world. However, we need to provide a focus and framework so that they can understand these issues and make judgements for themselves.

As a consequence, these activities are beneficial because they give students an opportunity to make decisions about real life situations that affect them. It empowers them and gives them opportunity to practice this skill of decision making based on authentic data and values. This is a skill that will assist them in intelligently navigating their way through life but we don't always provide them with the opportunity to do this in the classroom.

A final and most important attribute of activities which evoke awareness of social issues is the realization that mathematics can no longer be viewed through a lens that filters out values, ethics and any responsibility for the information provided by the mathematical solution reached.

Response-Able Mathematics

Yipirinya School, Alice Springs, NT

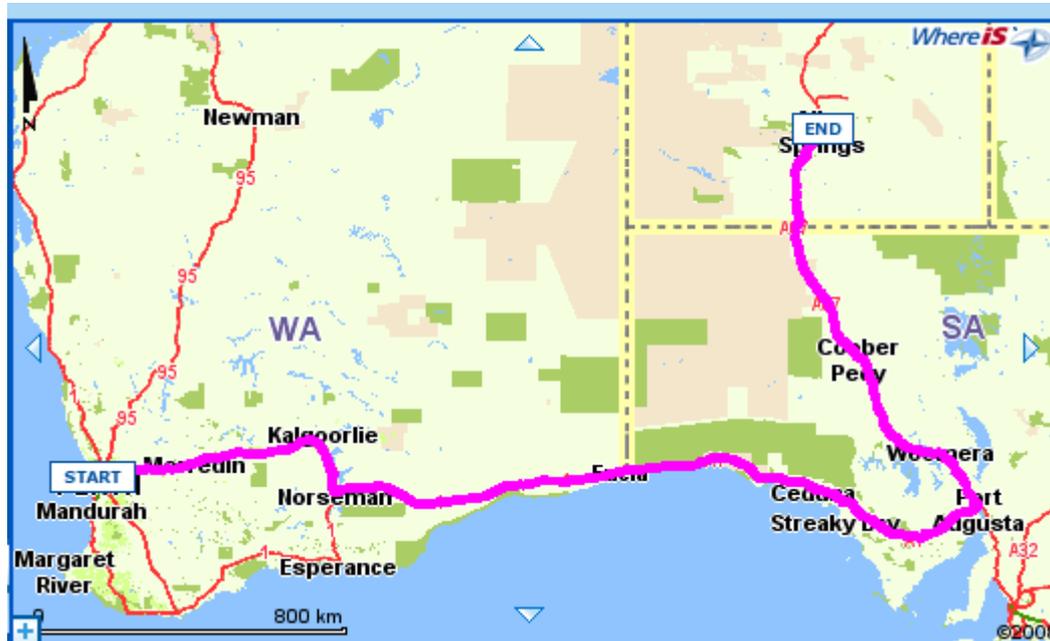
Life is full of decisions. Using the knowledge, skills, and set of values we have, we make decisions every day. In this set of activities, you are going to use your knowledge and skills in Mathematics and your set of values to make a decision about a real life issue.

As you may know, as a part of the Year 8 fundraising, Year 8 Forms have been asked to help to support a school in Alice Springs, NT called Yipirinya Community College. As a Year 8 student, in these activities you will find out more about this school and you will be asked to decide for yourself:-

- (a) if this school is in need and deserving of your support and,
- (b) if sending them school supplies as has been currently planned is the best way to do that.

Where is it?

Yipirinya Community College is located in Alice Springs, NT.

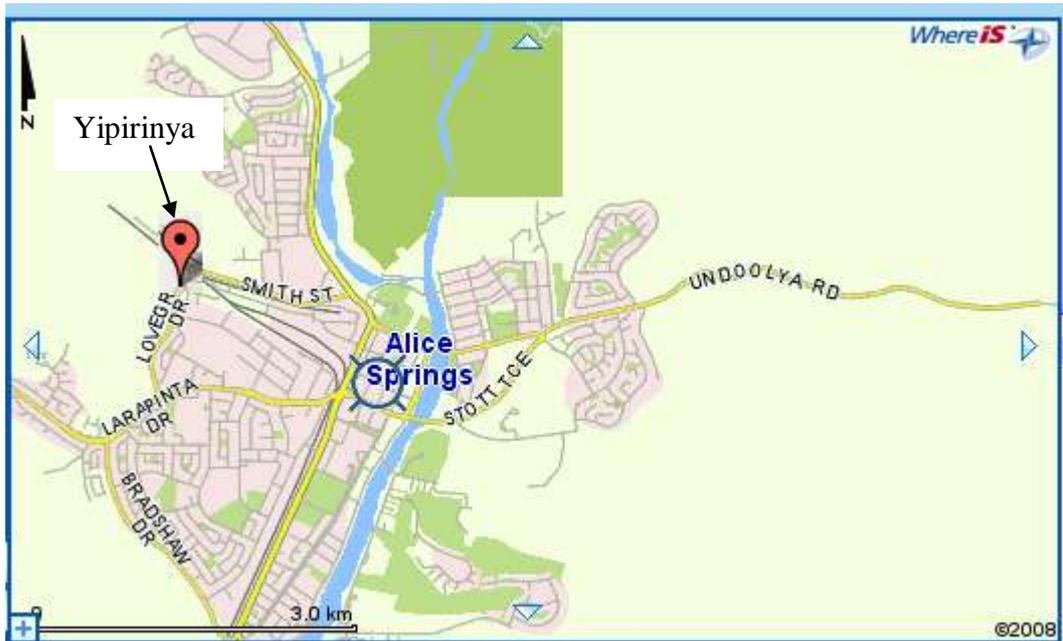


Q1. Estimate how far it is from where you live (Perth) to Yipirinya School as the crow flies.

(Note the scale at the bottom left of the map)

Q2. Use what you know about Alice Springs and the NT to describe briefly what life in this community might look like (climate, availability of Big City commodities and facilities, population etc.) compared to Perth.

How far is it from the centre of Alice Springs?



Q3. Distance is

Compared to St Mark's from the centre of Perth?



Q4. Distance is

How far is it from Perth to Alice Springs by road?



Q5. Find the total distance by road from Perth to Alice Springs.

Q6. How much further is it from Eucla to Ceduna than from Norseman to Caiguna?

Q7. What fraction of the journey is in each of the States travelled (use Eucla and Kulgera as border towns)?

Q8. What is the percentage of the journey in each State?

Q9. What is the distance from Alice Springs to Adelaide (The nearest major centre for supply of resources)?

What is its history?

Every thing has a beginning, it had to start somewhere and for a reason. St Mark's began in 1986 as a part of the Anglican School Commission with the philosophy of creating a low fee paying independent school with a Christian ethos.

Yipirinya Community College is an Aboriginal-controlled bilingual and bicultural school created for the reasons below.

"The parents and children had grown dissatisfied with the worth and style of education provided by Government schools, and had been shamed and angered by the taunts and racism of some white children and teachers. Many camp children have limited access to adequate washing facilities. When they are in competition with well-fed, well-dressed children who live in houses that are warm in winter and cool in summer – and in environments where books, papers, and the opportunity to learn are usually present – then most Aboriginal children come out on the underside of the system."
Aboriginal Law Bulletin

<http://www.austlii.edu.au/au/journals/AboriginalLB/1982/49.html>

Q1. What do you see are the advantages of an independent school as opposed to a government school?

What kind of school is it?

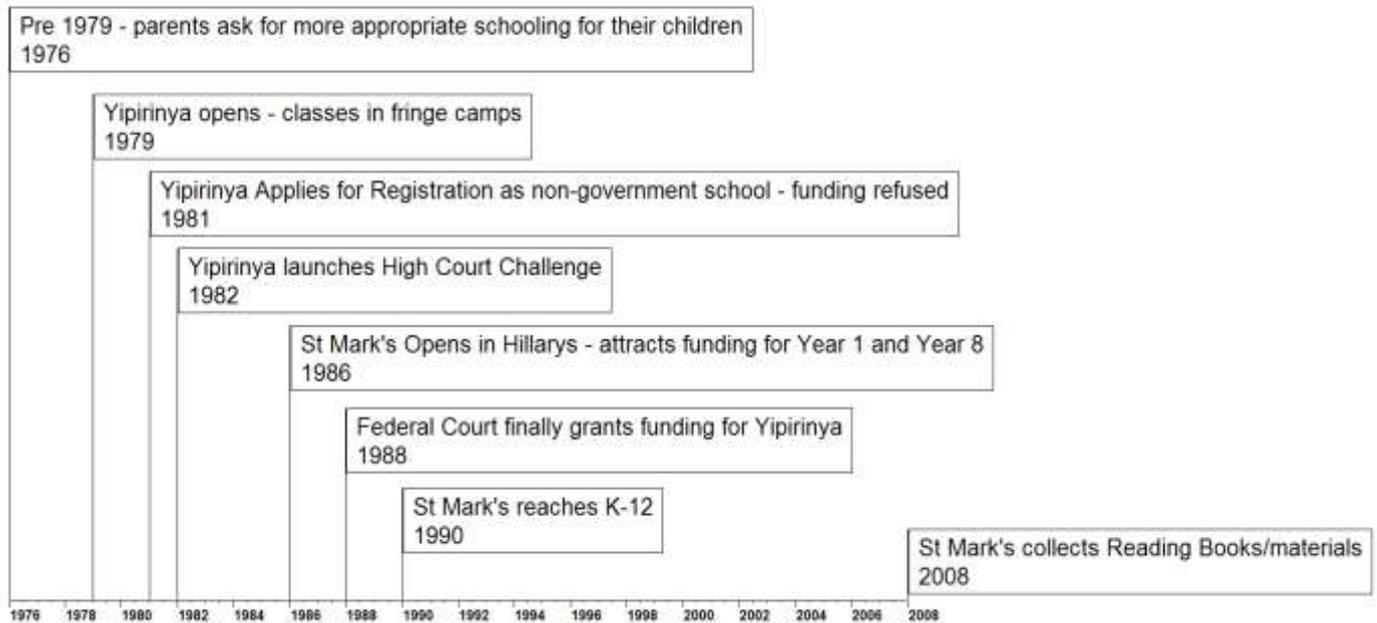
Yipirinya Community College is an independent school just like St Mark's.

Q2. Use bar graphs to compare the student body of Yipirinya Community College to the student body of St Mark's.

←—————→
20 male 15 female

		KG	PP	1	2	3	4	5	6	7	8	9	10	11	12
Yip	M	13	21	14	9	11	12	9	9						
	F	8	11	16	7	15	14	11	4						
StM	M	27	28	31	30	36	32	33	32	32	78	76	77	74	65
	F	23	31	29	30	28	32	31	32	32	85	69	82	74	67

Q3. As you look at the graphs that you created, what stands out to you?
What conclusions can you make?



Use the timeline above for Yipirinya Community College to help you discover where and why it began.

Q4. What stands out to you from the timeline? What conclusions can you make?

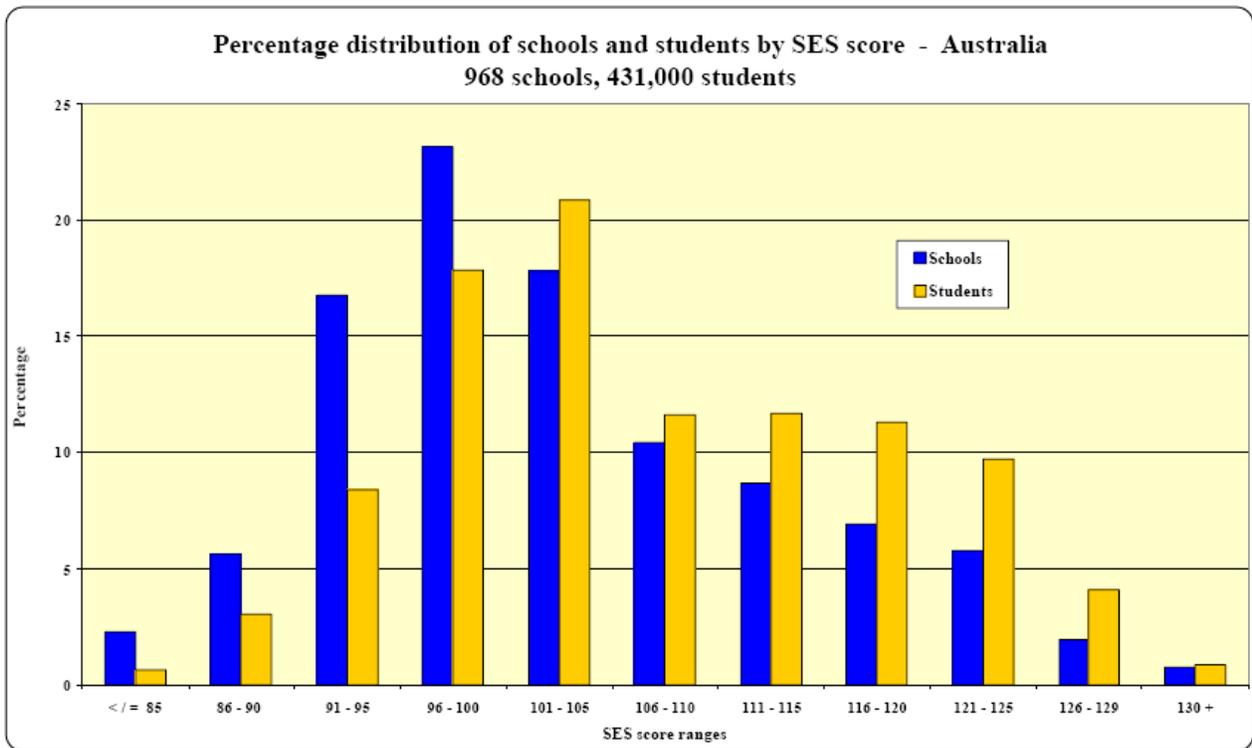
Q5. What fraction of the time Yipirinya has been running has it been officially funded?

Q6. Do you think St Mark's could have survived on donations for the first 10 years of its existence (explain your answer)?

So why might we send them support?

Yipirinya Community College has battled over the years to obtain funding from the government. Initially, the Northern Territory government said that they did not want to support a school that they could not completely control. Today, however, they receive funding from the government in the same ways that St Mark’s does. So, what’s the difference?

Government funding for schools in Australia is based on a “Socioeconomic Status” (SES) This score is based on the economic status of a community or a household. St Mark’s has an SES score of 114. Yipirinya Community College has an SES score of 84. The formal definition of socioeconomic status, commonly referred to as SES, is “the relative position of a family or individual on an hierarchical social structure, based on their access to, or control over, wealth, prestige, and power” (Mueller & Parcel, 1981).

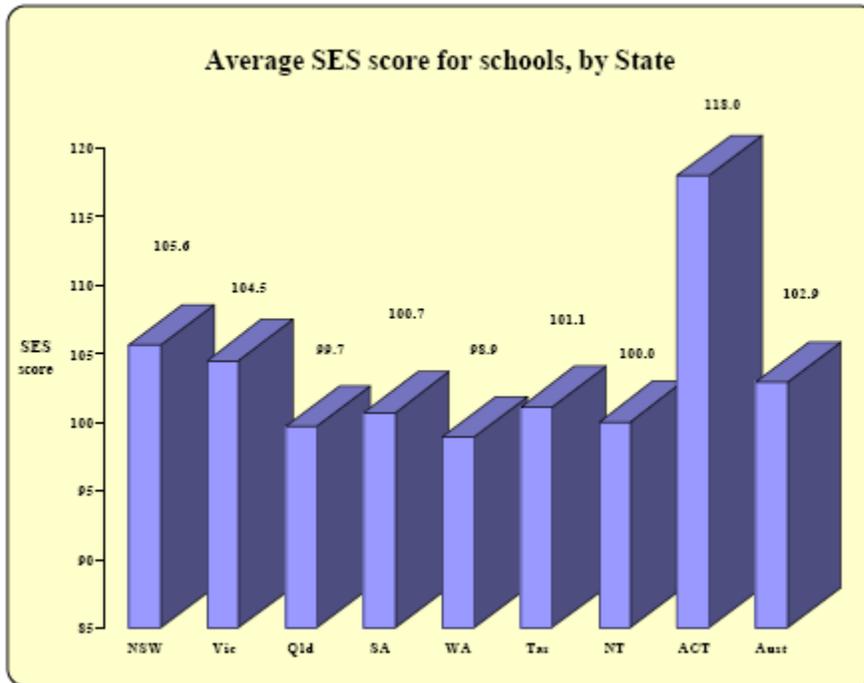


Q1. What information does this graph tell us?

Q2. Explain how this graph displays information.

Q3. What conclusions can you make about St Mark's ACS and Yipirinya Community College based on this graph?

Q4. What does this graph tell us about the economic status of students and schools in Australia?



Here is the same information from a different viewpoint

Q5. What information does this graph tell us?

Q6. Explain how this graph displays information.

Q7. What does this graph tell us about the economic status of schools in the various States in Australia?

Activity 4

Yipirinya Community College

So how might we measure the difference in the Socioeconomic Status of St Mark's and Yipirinya Community College?

Distribution of Schools by SES Score					
SES Score	Total Number of Schools	Number of SES-funded Schools	SES Score	Total Number of Schools	Number of SES-funded Schools
57	2	2	104	36	26
62	2	2	105	32	13
67	1	1	106	26	13
68	1	1	107	20	9
73	2	2	108	14	6
74	1	1	109	17	12
75	1	1	110	21	14
76	1	1	111	16	12
82	3	3	112	19	8
83	3	3	113	24	8
84	2	2	114	14	11
85	3	3	115	11	7
86	3	3	116	17	8
87	9	9	117	17	10
88	10	10	118	9	7
89	16	16	119	13	6
90	15	15	120	11	8
91	21	21	121	15	10
92	28	26	122	12	7
93	33	32	123	8	6
94	44	41	124	10	7
95	37	34	125	11	4
96	53	46	126	5	3
97	42	39	127	4	2
98	46	38	128	6	3
99	45	38	129	4	1
100	38	28	130	4	1
101	38	23	131	1	0
102	38	19	132	1	0
103	30	12	133	1	1
Total No. of Schools		967	Total No. of SES-Funded Schools		695
Note: Excludes New and Special Schools					

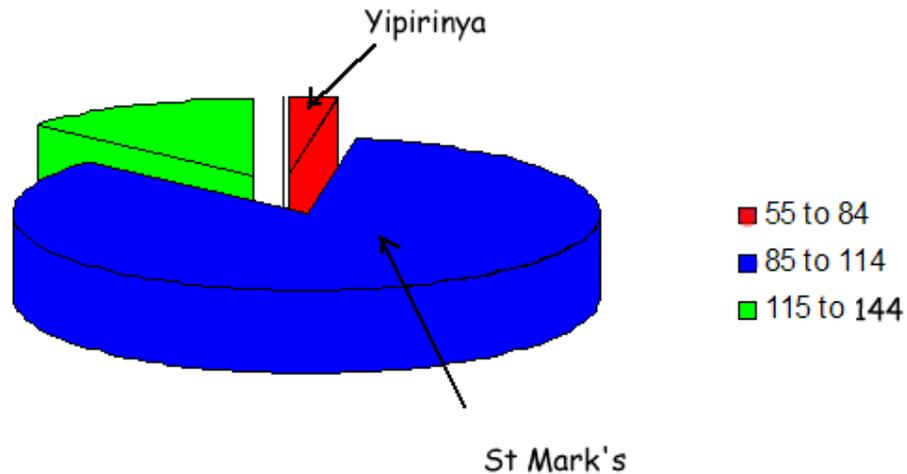
Q1. By ranking the funded schools on their SES number (133 ranks 1, 130 ranks 2, 129 ranks 3, 128 ranks 4, **126 ranks 7** etc.) decide just how much difference there is between St Mark's and Yipirinya.

A Pie Chart of the summarised data is below the table

SES Range

Number

55 to 84	19
85 to 114	585
115 to 144	91



Q2. Find the approximate ratios that exist between the three categories.

Q3. What information does the ranking and the ratios you have calculated provide you with?

One definition of "marginalized" is to be identified as being in an unimportant or powerless position within a society or group.

Q4. Decide (with reasons) if this definition may be appropriate to describe the Yipirinya School Community.

What have they achieved that deserves note?

Yipirinya Community College: A Centre for Excellence in Teaching Indigenous Students

Yipirinya Community College, Alice Springs, is being developed within the Scaffolding Literacy Project as 'the hub', that is, a Centre for Excellence in Teaching, particularly in literacy.

Before the Scaffolding Literacy Project was introduced, the researchers tested the reading ability of a Year 6/7 class: 72 per cent (15 children) could not read any text; 14 per cent (3 children) could read at kinder level but not Year 1; 14 per cent (3 children) could read a Year 1 benchmark text above 90 per cent accuracy.

Comparisons of pre and post test performances after only two terms (with an increase in students) showed that: 83 per cent (24 children) could read a Year 4 benchmark text between 90-100 per cent accuracy; 3 per cent (one child) could read at Year 4 benchmark level between 80-90 per cent accuracy; and 14 per cent (4 children) could not read a Year 4 benchmark text above 80 per cent accuracy.

This result gives an indication of the kind of literacy development possible when the program is implemented in a focused and consistent manner.

Since the Scaffolding project was introduced over the past two years there has been a dramatic increase in enrolments and attendance. From 100 enrolments

2 years ago, there are now 220 enrolled. Attendance is still an issue and the goal is 75 per cent, but it is up from 45 per cent to 65 per cent.

"The families in the local community now feel that their children are safe in the school..."

The new enrolments have come from the camps around the town where most of the children live. The children who have enrolled come because of the better programs, the Language and Culture Program in particular, and the fact that 78 per cent of the staff are Aboriginal and from the local community so many of the kids come with them. The families in the local community now feel that their children are safe in the school and that they will be cared for and well educated.

From the above article, complete the table below and then answer the following questions using the mathematical information provided.

	Cannot read at Y4	Can read at Year 4
Before Project		

After Project		
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Q1. Decide (with reasons) if Yipirinya School has made significant achievements with their reading programme.

Q2. Explain how can 3% represent one child.

Q3. How many people is 0.1% of 20,000,000 (Population of Australia)?

Q4. What % has the attendance increased over the past 2 years?

Q5. What fraction of the percentage attendance goal is that?

Activity 6

Yipirinya Community College

St Mark's has collected the following items (by donation). Money could have been raised instead and used to purchase new items to be sent to Yipirinya.

The following are samples of price lists for books suitable for the target group as readers. Any items not considered to be good reading material have been crossed out

STUDENT ORDER FORM					
QTY	ITEM NO	BUSY BEE TITLES	PRICE	\$ AMOUNT DUE	ITEM NO
	1	I'll Always Love You	\$12.00		1
	2	I Went Walking	\$4.00		2
	3	Moisy's Wonderful Weather Book	\$22.50		3
	4	Good Night, Sleep Tight	\$12.50		4
	5	Mini Alphabet Library + Puzzle Cards	\$27.00		5
	6	Here the Explorers: The Night Hunt	\$14.00		6
	7	Picture Word Lotto	\$15.00		7
	8	Ten in the Meadow	\$6.00		8
	9	Trace and Learn: Wipe Clean ABC	\$14.00		9
	10	Baby Einstein: See and Spy Shapes	\$7.00		10
	11	1 Spy DVD Collection	\$39.00		11
	12	When I'm Feeling Loved	\$7.00		12
	13	Sing and Read Favourites Pack	\$25.00		13
	14	Whomps on the Box	\$8.00		14
	15	Too Small for School CD	\$12.50		15
	16	Hippo Has a Hat	\$14.00		16
	17	Father Koala's Fairy Tales	\$5.50		17
	18	Read-Aloud Animal Pack	\$34.50		18
	19	Best Easter Ever Pack	\$15.00		19
	20	Look and Find: Little Einsteins	\$10.00		20
	21	Learn with Eggs: Farm	\$4.50		21
	22	My First Photo Album	\$10.00		22
	23	Easter Cooking	\$14.00		23
	24	Dr Swiss Lacing Cards	\$9.00		24
	25	Animal Magnetic Pattern Blocks Set	\$12.50		25
	26	Tough Truck Floor Puzzle	\$13.00		26
	27	March/1 Opposites	\$18.00		27

THE SCHOLASTIC 100% SATISFACTION GUARANTEE:
 If you are not completely satisfied with any Book Club item, simply return it within 30 days for a credit or refund—no questions asked!

TOTAL QTY: _____

TOTAL COST: \$ _____

PAYMENT TO SCHOOL: \$ _____

Please note:

Q1. By adding the book prices only, calculate an average cost for books of this type available from Busy Bee (record the total cost and the number of books as well).

STUDENT ORDER FORM											
QTY	ITEM NO	ARROW TITLES	PRICE	S AMT DUE	ITEM NO	QTY	ITEM NO	ARROW TITLES	PRICE	S AMT DUE	ITEM NO
	1	Miraculous Journey of Edward Tulane	\$12.00		1		33	Virtual Pet Puppy Pack	\$14.50		33
	2	Magnificent Flaps of the World	\$9.00		2		34	Dragons: Fearsome... Myth and Fiction	\$9.00		34
	3	 DON'T MISS! Adventures of Tom Sawyer ONLY \$3			3		35	How to Draw... Pokémon + FREE Pencils	\$8.00		35
	4	Ferno the Fire Dragon	\$12.50		4		36	Double Security Locker	\$18.50		36
	5	Gezrimo Stilton...Next Five Adventures	\$26.00		5		37	Yu-Gi-Oh! GX: Game On!	\$12.00		37
	6	Bart Simpson #10: Puppets Master	\$6.50		6		38	Be the Best You Can Be!	\$8.00		38
	7	Design It Yourself: Race Car	\$18.00		7		39	Bratz Pampered Pups: My File + Pen	\$11.00		39
	8	Fowl Play	\$6.00		8		40	Born to Run	\$12.50		40
	9	Off the Charts Collection!	\$12.50		9		41	Welcome to Camden Falls	\$7.00		41
	10	Go Girl! Angels Boxed Set	\$35.00		10		42	Super Sneak	\$11.00		42
	11	Fresh Potty Summer Fun!	\$12.00		11		43	My Friendship Secrets Pack	\$12.50		43
	12	Worm Story	\$12.50		12		44	Pet Love: Spa and Relaxation Tycoon	\$22.50		44
	13	Bridge to Terabithia	\$12.50		13		45	Hidden Expedition: Treasure	\$18.00		45
	14	It's Great to Be Eight!	\$4.00		14		46	Project Hedges Pack	\$29.00		46
	15	7 Wonders of the World!	\$10.00		15		47	Downfall	\$8.00		47
	16	Matilda	\$12.50		16		48	Appalachian Fair Pack	\$6.50		48
	17	A Nation of Swaggies & Diggers	\$9.00		17		49	Star Wars... Against the Empire	\$6.00		49
	18	Candy Apple School Survival Pack	\$12.00		18		50	STEM: Sticky, Sticky Science	\$14.50		50
	19	How to Write Reports + FREE Pen	\$9.00		19		51	Goon Town	\$9.00		51
	20	Night Sky Observation	\$15.00		20		52	Nothing is Crazier Cool Quirky Style	\$19.50		52
	21	Back to School Columns Envelope Pack	\$30.00		21		53	Ten True Tales: Sharks... + FREE Notebook	\$7.50		53
	22	Naughtiest Girl in the School	\$11.00		22		54	Pack of Laughs with Captain Underpants	\$12.00		54
	23	 EDITOR'S CHOICE! Water Horse ONLY \$11			23		55	Search for the Missing Bones	\$6.00		55
	24	Enchanted Movie Novel	\$9.00		24		56	Cheat Sheet	\$6.00		56
	25	Golden Compass Book + FREE Pendent	\$10.50		25		57	Saddest Pony	\$4.50		57
	26	Charlie Bone Boxed Set	\$30.00		26		58	Trick Horse Stationery Box	\$10.00		58
	27	Forests of Silence	\$7.00		27		59	Girls' Life Intro Pack	\$4.50		59
	28	Nixie's Song	\$14.00		28		60	Official Pokemon Masters Intro Pack	\$5.50		60
	29	Booze That Pockets Money	\$12.50		29		THIS FIRST PACK CANNOT BE SUPPLIED WITHOUT A COMPLETED ORDER COUPON.				
	30	Times Tables Poster	\$7.00		30		THIS FIRST PACK CANNOT BE SUPPLIED WITHOUT A COMPLETED ORDER COUPON.				
	31	Castle Candle Kit	\$9.50		31						
	32	Me and My Kitten	\$12.00		32						

TOTAL QTY	\$
	TOTAL COST
Less any credit vouchers returned	\$
	\$
PAYMENT TO SCHOOL	

Q2. By adding the book prices only, calculate an average cost for books of this type available from Arrow (record the total cost and the number of books as well).

STUDENT ORDER FORM

QTY	ITEM NO	LUCKY TITLES	PRICE	S. AMT DUE	ITEM NO	QTY	ITEM NO	LUCKY TITLES	PRICE	S. AMT DUE	ITEM NO
	1	Pet Keeper Fairies Boxed Set	\$40.00		1	23	23	Littlest Pet Shop Scrapbooking Kit	\$9.50		23
	2	Little Magic	\$6.00		2		34	Where's Wally Now?	\$6.00		34
	3	 DON'T MISS! Best Easter Eggs Ever ONLY \$3.00			3		35	Easter Things to Make and Do	\$11.00		35
	4	Alpha Quest	\$14.00		4		36	Enchanted: Before the Fall	\$5.50		36
	5	Sing and Learn Times Tables	\$12.50		5		37	Bratz Activity Book with Charm Bracelet	\$8.50		37
	6	First Class Friends + FREE Stamp	\$7.00		6		38	Class Captain	\$8.50		38
	7	Pokémon Battle Frontier!	\$12.00		7		39	Star Wars: I Want to Be a Jedi	\$9.00		39
	8	Dora the Explorer Phonics Box Set	\$18.00		8		40	Cheese-Colored Camper	\$8.00		40
	9	Care Bears Fun Pack!	\$12.00		9		41	Bionicle Encyclopedia	\$8.50		41
	10	Dinosaur Bones	\$6.00		10		42	Wild Pix Deluxe 4	\$25.00		42
	11	Fang Fang's Chinese New Year	\$9.00		11		43	Star Wars Math: Jabba's Game Galaxy	\$19.50		43
	12	Clifford's Best School Day	\$4.00		12		44	Scooby-Doo Case File #3	\$18.00		44
	13	Six Little Rascals Box Set	\$27.50		13		45	I Spy Value Pack	\$27.50		45
	14	Magic School Bus Shark Adventure	\$6.00		14		46	I Love Unicorns!	\$10.00		46
	15	Puppy Place Twin Pack	\$9.50		15		47	Horton Hatches the Egg	\$9.00		47
	16	Elephant Mountain	\$10.50		16		48	School Fun Pack!	\$5.50		48
	17	Best Batsman Pack	\$9.00		17		49	Scooby-Doo Reader Pack	\$12.00		49
	18	Back-to-School Project Pack	\$10.00		18		50	Shaggy Gully Times	\$12.50		50
	19	Now I Know: Nutrition and Fitness	\$22.00		19		51	Magic Beach	\$7.00		51
	20	Solar System Poster	\$1.00		20		52	Australian Picture Book Pack	\$29.00		52
	21	Rhyme Time Card Game	\$4.00		21		53	Wilfrid Gordon McDonald Partridge	\$9.00		53
	22	First Picture Dictionary (HB)	\$6.00		22		54	Soupy Saturdays	\$12.50		54
	23	Blackboard Reward Chart	\$9.00		23		55	Minton Goes! Sailing & Flying	\$9.00		55
	24	Mighty Magnets Construction Set	\$19.50		24		56	I'm No 'Fraidy Cat + FREE Bracelet	\$6.00		56
	25	I Spy Challenge Pack	\$14.00		25		57	Amazing Pet Trainer	\$10.00		57
	26	LESS THAN HALF PRICE! Developing Reader Home Library ONLY \$35.00			26		59	Pony Pals Intro Pack	\$4.50		59
	27	All About Bats	\$14.50		27		THIS FIRST PACK CANNOT BE SUPPLIED WITHOUT A COMPLETED ORDER COUPON.				
	28	51 Coin Collection	\$9.00		28		60	Ultimate Space Intro Pack	\$7.00		60
	29	Why Are Dogs' Noses Wet?	\$7.00		29		THIS FIRST PACK CANNOT BE SUPPLIED WITHOUT A COMPLETED ORDER COUPON.				
	30	Solar System	\$9.00		30		TOTAL QTY \$ TOTAL COST				
	31	Glow-in-the-Dark Chess	\$16.00		31		Minus any student vouchers being claimed \$				
	32	Learn to Draw Dogs	\$13.50		32		Place order form and payment in an envelope and return it to your class. NB: please make cheques payable to Scholastic Australia \$				

Please note:

PAYMENT TO SCHOOL

Q3. By adding the book prices only, calculate an average cost for books of this type available from Lucky (record the total cost and the number of books as well).

Q4 Find the overall average (total cost for total number of books). Explain why this is not the same as the average of Q1,Q2 and Q3.

Q5. Given that we have collected 130 books to send, estimate the cost of providing these from new.

Q6. The rest of the donated material consists of:

- (a) 80 packets of textas
- (b) 500 biros
- (c) 100 rulers
- (d) 500 pencils (black)
- (e) 100 pencils (coloured)
- (f) 50 note books

Estimate the cost of these and add it to your answer for Q5.

Q7. When Year Groups fundraise for a specific purpose, they generally raise amounts around the \$300 mark on average. With this in mind, decide whether St Mark's is more effective getting donations of books or should Year 8's be trying to raise money?

Conclusion

In this activity we have looked at Yipirinya Community College – where it is, what kind of school it is, its history, reasons that we may support them and how best to do this. Below are some quality principles outlined by the Australian Govt.

2.1 Aid Quality Principles

Quality is the extent to which aid activities apply internationally recognised characteristics of good aid practice, summarised in the five quality principles.

All activities are expected to:

- Achieve clearly stated objectives that contribute to higher level objectives in the program strategy
- Effectively measure progress towards meeting objectives
- Continually manage risks
- Appropriately address sustainability, with due account of partner government systems, stakeholder ownership and phase out
- Be based on sound technical analysis and continuous learning

http://www.aisaid.gov.au/ode/pdf/performance_policy.pdf

In plain language they can be reworded as:

- Meet the clear reasons for the provision of the aid/support
- Provide a measure of the progress made toward achieving these reasons
- Monitor the process to avoid mistakes or mis-directions
- Show evidence of the process being able to be continued without further aid
- Be based on best practice for the type of programme being implemented

Q1. Match the following statements to the relevant Activity Number

- (a) Non-Govt School Funding
- (b) How best to support the Project
- (c) Marginalization

- (d) Success of the Project being supported
- (e) Distance and Remoteness
- (f) Comparison with Big City School

Using the principles mentioned above and the mathematical facts you have produced, decide (with justification) if this fundraising project can be considered worthwhile by both St Mark's and Yipirinya.