



feeding the self

Pilot project results

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## Executive summary

School	MLS	Siphosethu
Description	Rural school in sugar cane fields.	Under-resourced school in suburban area
Student #	17	44
Project	Fully in class and garden	In garden (minimal integration in class)

### Academic Results

Garden taught in...	Natural Science				Life Orientation			
Average change term 1 -> term 2	58	92	34	64	64	61	-3	-3
Best result	40	95	55	138	55	76	21	39
Worst result	72	85	13	18	80	59	-21	-27

Gloss

MLS, which is more rural and where the project was followed much more closely, reported extremely positive results. The average grade went up 34%, from 58 to 92.

The results from Siphosethu show no meaningful change over the semester (41/44 students ± 10% on term 1 grades). However, the teacher expects improvements in natural science results by the end of this (3<sup>rd</sup>) term.

### Garden Results

Initial size	6 learner beds (24m <sup>2</sup> )	10 learner beds (40 m <sup>2</sup> )
Additional gardens dug in project period	Produce garden (20m <sup>2</sup> ) dug by FTS 8 additional learner beds (24m <sup>2</sup> ) dug by school	14 additional learner beds (56m <sup>2</sup> ) dug by school
Final size	64 m <sup>2</sup>	96 m <sup>2</sup>

Gloss

At both schools, the size of the garden was at least doubled over the course of the project. The only additional beds dug by the FTS crew were those in the MLS produce garden. This number does not include the area of gardens planted at student's homes, but indicates the success of the project in rolling out beyond the garden itself and into the school environment more generally. This is most evident at Siphosethu, where the garden has been expanded all the way along one side of the school, as well as in front.

In general, 95% of students say they are they interested in the project, 90% think they will continue gardening, and 90% are they noticing wildlife more. Only 5% did not think they would continue gardening after the project (3/61).

## Survey

Teacher survey summary	Almost exclusively strongly positive (no negative results, only one slightly rather than strongly positive response)	Almost exclusively strongly positive (no negative results, only one slightly rather than strongly positive response)
Student survey summary	<p>All students...          have spoken to parents, other family members, and adults in their community about their gardens.          Have started gardens at home, which are growing well.          are finding the project interesting, and will continue growing gardens after it ends.          are enjoying working in their group and in the garden, feel better after working in the garden, find it has helped with their Natural Science work, and have been using their log books.          notice wildlife more than they had before.</p>	<p>All students...          have spoken to community members about their gardens          enjoying working in their group and in the garden          feel better after working in the garden          find it has helped with their Natural Science work          have been using their log books.</p>

### Gloss

Both teachers reported strongly positive results. These include that the level, amount, and content of the course was material appropriate, there has been a strong positive effect on the students' understanding of Natural Science, Life Orientation, Mathematics, and English, and will positively affect the students' end of term grades. The students are strongly interested in the garden work and willing to put in extra time after class, as well as other children and teachers in the school being interested in the project.

Both teachers feel their involvement with the school community and teaching style have benefited from the project, and that they could continue running the project without supervision from now on, She has had positive feedback from parents and the community, and has spoken to teachers at other schools about it, She has started a garden at home.

98% of the children feel it has improved their natural science work, have been using their log books, both enjoy and feel better after working in the garden, and have spoken to community members about the project and their gardens.

## Community impact

Gardens outside school planted	17/17	22/44
Dissemination into community	8/17 have not given seeds out, but intend to.	29/44

Gloss

At MLS, all students planted gardens at home, since the course was followed closely. Only half of the students at Siphosethu did this, though they did it voluntarily, meaning that even without enforcement the project has been relatively successful at pushing gardening practices into the community.

Both schools also report parents and community members contacting the teachers for seeds and more advice, indicating that the children have fostered an interest within their home communities. Overall, 72% have started gardens at home (44/61). 54% of the students have given out seeds within their community (33/61); of those who have not, only 6.6% do not intend to give seeds out (4/61)



## Survey breakdown& questions

Following the end of term and the conclusion of our pilot project at MLS Blackburn and Siphosethu Primary (the two schools the pilot was running in), we conducted a survey to gauge the academic and social impact that the project had achieved within the schools and their associated communities. Included will be a copy of the survey distributed to the students and teachers at each of the schools, and following on from this are the collated results.

- Both teachers reported strongly positive responses (21/22 questions, answered on a scale of -2 to +2, marked at +2 = 95.4%)
- 98% of the children feel it has improved their natural science work, have been using their log books, both enjoy and feel better after working in the garden, and have spoken to community members about the project and their gardens(60/61)
- Only 5% did not think they would continue gardening after the project (3/61)
- At MLS, all students have started gardens at home (17/17), while at Siphosethu only 50% have done so (22/44). Overall 72% have started gardens at home (44/61)
- Of the gardens at home, only 6.5% were not growing well (3/46)
- 54% of the students have given out seeds within their community (33/61); of those who have not, only 6.6% do not intend to give seeds out (4/61)
- 5% wrote answers that were either incomplete or contradictory (3/61)

Student Questions	Teacher Questions
Are you enjoying working in the garden?	How interested are the students in the garden work?
Are you finding the project interesting?	Are they willing to put in extra time after class?
Did you know anything about growing food before?	Are other children in the school showing interest in the project?
Have you started a garden at home?	Have you spoken to colleagues from other schools about this project?
If so, is it growing well?	Have other teachers within your school displayed interest in the project?
Are you noticing plants/animals/insects in your environment more than you did previously?	Have you had feedback from parents or the community?
Do you think you will continue gardening at home after the school project ends?	Have you created your own garden at home?
Are you enjoying working with your group?	Was it easy to link the course material to curriculum material?
Is the garden work helping your other school work?	Has there been an effect on the student's understanding of... Natural Science /Life Orientation/ Mathematics/ English
Do you feel better after working in the garden?	Has your teaching developed as a result of the project? If so, please give details in the comment box.
Have you given seeds to anyone?	Do you think the project will positively affect the student's end of term results?
If your answer to the above question is no, is there anybody you want to give seeds to?	Have you learnt from the project?
Have you spoken to other people at school about your work?	Do you feel like you could continue to run the course without Feeding The Self (FTS) supervision in the future?
Have you spoken to family members about your work?	Was the level of the course material appropriate?
Have you spoken to adults in your community about your work?	Was the amount of course material appropriate?
Do you feel like the garden project has helped you with your natural science work?	Was the content of course material appropriate?
Have you been using your log book?	Has the project changed your involvement within the school community?
	Have you been remembering things you learnt a long time ago?

## MLS Blackburn

### Teacher

Mrs. Ntsikanye (grade 6 teacher) wrote:

Comments regarding my teaching development as a result of the project.

“It involves [the] learner more than an educator. The learners understand more about an ecosystem. They gain more knowledge to sustain with the food that comes from the soil. We use available resources, i.e. garden, old grass, old leaves, to make a compost. It also involves more practical than theory because they talk about the food they have in their garden at school and at home as well. They go the community to advise their neighbours about the important of planting.

In the next generation, no one will be poor as we teach these learners now and they [have] more interest in this project.”



On a scale of -2 to +2, where -2 is significant negative change and +2 is significant positive change, Mrs Ntsikanye gave +2 to everything except “Have you been remembering things you learnt a long time ago?”, to which she answered +1. This indicates that she thought that:

- The level, amount, and content of the course was material appropriate.
- There has been a strong positive effect on the students’ understanding of Natural Science, Life Orientation, Mathematics, and English, she is finding it easy to link the course material to curriculum material, and she thinks it will strongly positively affect the students’ end of term grades.
- The students are strongly interested in the garden work, and willing to put in extra time after class.
- Other children and teachers in the school are interested in the project.
- Her involvement with the school community and teaching style have benefited from the project, she feels she could continue running the project without supervision from now on.
- She has had positive feedback from parents and the community, and has spoken to teachers at other schools about it.
- She has started a garden at home.

### **Students**

The students (17 students, in grade 6) were asked a series of yes/no questions. To these questions, they all answered yes to most of the questions, indicating that:

- They have all started gardens at home, which are growing well.
- They have all spoken to parents, other family members, and adults in their community about their gardens.
- They are finding the project interesting, and will continue growing gardens after it ends.
- They are enjoying working in their group and in the garden, feel better after working in the garden, find it has helped with their Natural Science work, and have been using their log books.
- They are all finding themselves noticing wildlife more than they had before.

Of the ‘No’ responses:

- 8 said no to having known about growing food before, and have not given seeds out within their community (but do have people in mind for giving seeds to).
- 2 said they did not know about growing food before, have not given seeds out within their community, and have no people in mind to give seeds to.
- 3 said they didn’t know about growing food before, but said yes to everything else.
- 1 said he wasn’t finding the project interesting, but ticked yes for everything else.
- 3 said yes to everything



## Siphosethu Primary

### Teacher

*Mrs Buthelezi (grade 6 & 7 teacher):*

*Comments*

“Teaching has been so productive. It was so interesting for me as well as [the] learners to have some words from our textbook & the FTS teaching & learning materials. The [ideas] can be easily compared to the real one, as we were engaged practically in the garden.”



On a scale of -2 to +2, where -2 is significant negative change and +2 is significant positive change, Mrs Buthelezi gave +2 to everything except “Are the students willing to put in extra time after class?”, to which she answered +1. This indicates that she agrees with Mrs Ntsikanye’s feedback (above).

## Student

Of the 44 students, they all said yes to various questions, indicating that:

- They have all spoken to community members about their gardens.
- They are enjoying working in their group and in the garden, feel better after working in the garden, find it has helped with their Natural Science work, and have been using their log books.

Of the ‘No’ answers:

- 11 said yes to all but one question; either that they were not noticing plants and animals more (3), did not find the project interesting (2), did not know anything about growing food before (4), or were not growing a garden at home (2).
- 3 had started gardens at home, which were not growing well, of which 1 had also not spoken to the community members.
- 1 did not know about growing food before, has not started a garden and is not noticing wildlife more, but has been distributing seeds.
- 15 have not started a garden at home, and have not distributed seeds, but have spoken to community members and do intend to give out seeds. Of these students 2 did not think they would continue gardening after the project.
- 5 have not built a garden at home, but have distributed seeds.
- 1 person has no garden, and has no intent to distribute seeds.
- 1 did not know about growing food, and has not given seeds to anyone.
- 1 did not like working in his group, but said yes to everything else.
- 2 said yes to everything.
- 1 said he did not enjoy it, was not finding it interesting, didn’t think he would continue gardening, but has given seeds out.
- 1 indicated he enjoyed working in the garden, but was not finding it interesting.

## Academic results

### MLS Blackburn

At this school, the project was followed very closely, using the materials provided. Marks given are natural science overall marks for term 1 and term 2. Ideally, these would be compared to the marks for the same students in the previous and following semester, as well as with other students in equivalent schools. The percentage difference is the increase from previous grade; for example, a change of 40 to 50 is a 10% increase in marks, but a 25% improvement in score.

term 1	term 2	diff	% diff
72	85	13	18
72	88	16	22
79	98	19	24
72	95	23	32
57	81	24	42
55	82	27	49
72	99	27	38
53	82	29	55
52	83	31	60
67	99	32	48
63	99	36	57
61	99	38	62
50	90	40	80
58	99	41	71
55	99	44	80
45	90	45	100
44	91	47	107
40	91	51	128
40	95	55	138
<b>Averages</b>			
<b>58</b>	<b>92</b>	<b>34</b>	<b>64</b>

## Siphosethu

term 1	term 2	diff	% diff
55	76	21	39
57	79	21	37
76	85	9	12
45	53	8	18
61	69	8	13
63	69	7	11
68	73	5	8
67	71	4	6
51	53	3	5
51	53	3	5
63	64	1	2
68	69	1	2
56	56	0	0
47	47	0	0
61	61	0	0
56	55	-1	-2
56	55	-1	-2
61	60	-1	-2
71	69	-1	-2
67	65	-1	-2
81	79	-3	-3
59	55	-4	-7
60	56	-4	-7
75	71	-4	-5
69	64	-5	-8
61	56	-5	-9
77	71	-7	-9
81	75	-7	-8
65	59	-7	-10
65	59	-7	-10
72	65	-7	-9
57	51	-7	-12
72	64	-8	-11
73	65	-8	-11
56	48	-8	-14
67	58	-9	-14
60	51	-9	-16
52	41	-11	-21
60	49	-11	-18
68	56	-12	-18
73	60	-13	-18
69	56	-13	-19
60	45	-15	-24
80	59	-21	-27
<b>Averages</b> 64	61	-3	-3

Marks adjusted to be a percentage (initially out of 75). Marks given are natural science overall marks for term 1 and term 2. Ideally, these would be compared to the marks for the same students in the previous and following semester, as well as with other students in equivalent schools. The percentage difference is the increase from previous grade; for example, a change of 40 to 50 is a 10% increase in marks, but a 25% improvement in score.

Grades at this schools showed no real improvement or reduction from the garden activity. This means that, although the garden was significantly expanded and cared for, it did not interrupt their academic schedule; however, since they executed the garden project purely in terms of garden activities (rather than using the specific curricular materials provided), the cognate aspects of the project did not take hold. Despite this, their teacher expects to see an improvement in their grades from the end of this semester.

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