

# **Evaluation of WAN Malawi Pilot Project**

**Final Report December 2017**

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The goal of the WAN Malawi Pilot Project is to assess the impact of the WAN Humane Education for Happiness and Well-Being curriculum on changes in children's attitudes and behaviors. The pilot was carried out during the 2016-17 school year in four Malawi schools – two rural and two urban. A total of 120 children ages 8-13 started the program. The intervention consisted of weekly lessons led by two local humane educators for a total of approximately 32 hours of WAN Humane Education for Happiness and Well-Being activities.

## **A. Methodology**

For the summative evaluation component of the study, three instruments were used:

### **1. Pre-post student attitude inventory**

This 60-item inventory is based on the existing WAN student questionnaire. The questions were translated to the local language Chichewa and read aloud by the Humane Educators during administration. Each child had a written copy of the inventory to mark his/her responses.

### **2. Pre-post teacher assessment of students questionnaire**

A brief assessment of individual children's attitudes and behaviors, as well as summary school attendance and achievement, was completed by the local school homeroom teachers.

### **3. Final student and teacher assessments**

Participating students and teachers were asked to share their views on the impact of participation on their attitudes and behaviors.

## **B. Attrition and Attendance**

A total of 120 students at the four sites took the completed the pre-assessment and committed to participating in the pilot. Of these, 96 completed the lessons and the post-assessment, a retention rate of 80%. The attrition rate was similar across the four sites, as shown in the table below.

<b>Site</b>	<b>No. Started</b>	<b>No. Completed</b>	<b>Pct. Retention</b>
Shire	28	22	79%
Chimutu	30	23	77%
Thete	30	25	83%
Chidewere	32	26	81%
	120	96	80%

Reasons for leaving the pilot included transfers, illness and absence from school.

Attendance in the WAN Humane Education for Happiness and Well-Being was excellent, with an average of 28.7 hours of participation, a mean attendance rate of 90%. The weekly feedback forms indicate that when students attended they were almost always fully engaged in the activities.

### **C. Post Questionnaires**

On the questionnaire administered at the end of the pilot, a total of 69 children responded that they enjoyed the humane education activities a lot (72%). 88% said that participating in the activities changed their attitudes toward animals. 90% said that their attitudes toward the environment were affected, and 86% said that the activities changed their attitudes toward people. 59% said that participating in the lessons also had an effect on their family members. The table below summarizes student responses by site.

<b>Site</b>	<b>Pct. enjoyed activities a lot</b>	<b>Pct. changed attitudes toward animals</b>	<b>Pct. changed attitudes toward environment</b>	<b>Pct. changed attitudes toward people</b>	<b>Pct. had effect on family members</b>
Shire	82%	95%	100%	91%	59%
Chimutu	70%	83%	74%	87%	52%
Thete	76%	96%	92%	88%	76%
Chidewere	70%	77%	92%	81%	50%
<b>Total</b>	<b>72%</b>	<b>88%</b>	<b>90%</b>	<b>86%</b>	<b>59%</b>

A total of 32 teachers across the four sites responded to a 28 item post-pilot questionnaire. Nearly all teachers said that participation in the WAN Humane Education for Happiness and Well-Being lessons had a positive effect on students. According to teachers, the top five impacts of participating in the lessons on students are:

**1. Improved school attendance** - 78% of teachers said that the pilot project definitely contributed to enhanced student attendance in school.

**2. Improved levels of care and compassion for animals** - 75% of teachers said pilot project participation enhanced the levels of care and compassion for animals among their students.

**3. Strengthened the level of respect and awareness for nature and the environment** - 72% of teachers said that participating in the lessons enhanced students' levels of respect and awareness for nature and the environment.

**4. Improved learners' social skills** - 69% of teachers said that the pilot project enhanced how students interact with classmates.

**5. Improved the level of kindness and compassion in the class** - 59% of teachers said that participating in the lessons improved the level of kindness and compassion in their classes.

A complete summary of teacher responses to the post-pilot questionnaire can be found in Appendix A.

#### **D. Pre-Post Teacher Assessments of Students**

Teachers completed a 21-item rating of each student at the beginning and end of the pilot. The items asked teachers to rate students on a scale of 1-5 on the following indicators of attitude, behavior and academics:

1	Critical thinking skills
2	Academic Achievement
3	Innate wisdom
4	School Attendance
5	Behavior in school
6	Interactions with school staff
7	Interactions with fellow students
8	Ability to concentrate
9	Communication skills
10	Contribution to calm class environment
11	Cooperation and helpfulness
12	Diminishes bullying in class
13	Helpfulness in resolving class conflicts
14	Volunteerism
15	Strong moral values
16	Demonstrates happiness and well-being
17	Has high self-worth and confidence
18	Positive influence on family members

19	Kind to others
20	Compassionate for animals
21	Respectful of nature/environment

Across the four sites, the mean ratings of students by teachers improved by 3% (0.28 of a standard deviation), a modest positive gain. The indicators on which student mean ratings increased the most were the following:

- 1. Interactions with school staff + 17.1%
- 2. Diminishes bullying in class + 14.9%
- 3. Helpfulness in resolving class conflicts + 14.7%
- 4. Interactions with fellow students + 14.3%
- 5. Volunteerism + 12.3%
- 6. Communication skills + 9.9%
- 7. Behavior in school + 9.4%
- 8. Cooperation and helpfulness + 9.3%
- 9. Strong moral values + 9.0%
- 10. Compassionate for animals + 5.8%

The eight indicators which changed the most were all school behavior related.

Two indicators directly aligned with the WAN objectives - demonstrates happiness and well-being and respectful of nature/the environment did not show any mean gains in teacher ratings of students. The WAN humane educators posited several possible reasons for this result. They noted that due to large class sizes teachers may not be familiar with the attitudes of all students and may not be able to assess the happiness/well-being of individual children. They also noted that there are currently no lessons on nature and the environment in the official curriculum, so teachers would not have opportunities to observe changes in students' attitudes in these areas.

It is also important to note that while the pre-post teacher ratings of individual student attitudes did not show gains in certain areas, the majority of teachers responded that the WAN lessons enhanced levels of care and compassion for animals among participating students, strengthened the level of respect and awareness for nature and the environment and improved the level of kindness and compassion in their classes, as reported in Section C above. This

was born out by the high percentages of children reporting that their attitudes toward animals (88%) and the environment (90%) were affected by the activities.

### E. Pre-Post Student Assessments

All 96 students who completed the pilot responded to a 60-item questionnaire at the beginning and end of the study that solicited responses regarding their attitudes toward animals, the environment, people, moral values and happiness/well-being.

As was done for the pre-assessment data, a "compassion/happiness index" (CHI) was constructed based on student responses to the 60 items. The range of possible total ratings for the 60 items is 60-300. Taking into account the 16 items with a negative desired response (probably not/definitely not), the CHI for each student was computed as the percentage of most desirable responses, so the CHI is a scale from 1 to 100, with 100 representing the most highly compassionate and happy responses to the 60 items.

The table below summarizes the mean CHI for the four sites.

Site	No. students	Mean CHI Pre	Mean CHI Post	Mean Gain	Mean Pct. Gain
Shire	22	70.4	72.2	+ 1.8	+ 2.6%
Chimutu	23	69.6	67.9	- 1.7	- 2.4%
Thete	25	68.9	71.8	+ 2.9	+ 4.2%
Chidewere	26	65.3	67.7	+ 2.4	+ 3.7%
<b>Total</b>	96	68.4	69.9	+ 1.4	+ 2.1%

The overall gain in mean CHI scores across the four sites is a modest but statistically significant 2.1% (paired t-test, n=96, p<.02). The overall mean is affected by the net decrease in the CHI mean in Chimutu. No significant differences in gains were detected by gender or age.

In order to gain some insight into changes in student responses from the pre to the post questionnaire, a look at item level responses is warranted. The following table presents the mean pre and post responses for 18 of the 60 items that showed gains from pre to post.

Questionnaire Item	Pre Mean	Post Mean	Gain
11. You can tell when a dog is angry	3.4	2.8	0.6***
27. I think that bullying is totally unacceptable, and should be banned	2.8	2.4	0.4**
51. If I saw some older children bullying a young learner, I would always report this straight away	2.7	2.3	0.4**
7. Having animals around makes me feel happy	2.2	1.9	0.3**
21. Human actions are destroying our environment	2.7	2.4	0.3*

16. Being in nature helps people to relax and feel calm	2.4	2.2	0.2*
17. Flowers make the countryside beautiful	2.2	2.0	0.2*
3. Hunting wild animals should be banned	3.3	3.1	0.2*
1. Listening to birds singing makes me happy	2.0	1.8	0.2*
50. If my friends are talking about something that I don't understand, I just keep quiet because I don't want to appear different (Negative item)	2.7	2.9	0.2
49. When I get into an argument, I always try to understand the other persons' point of view to see whether I am in the wrong	2.8	2.6	0.2
59. I know I can succeed in life, if I follow what I feel is right for me	2.4	2.2	0.2
37. If you did something kind for an animal would you hide it from your friends or tell them? (Neg)	3.9	4.1	0.2
34. I don't compare myself to my friends; I just know that I am different and special in my own way	2.8	2.6	0.2
46. If I had to choose between working for a nature protection organisation and working for a bank or the government, I would choose the nature protection organisation	2.6	2.4	0.2
35. If you were walking home from school, and your mother was waiting for you at home, and you saw an injured animal on your way would you spend time finding some help for it (and get into trouble for being late)?	2.9	2.7	0.2
6. Would you be sad if you saw a horse fall down?	2.8	2.6	0.2
60. I feel happy	1.7	1.5	0.2

\*\*\* p<.001, \*\* p<.01, \* p<.05

These items with largest mean gains show growth in all of the key WAN objectives: caring for animals (7 items), people/social skills (5 items), nature/environment (4 items) and happiness/well-being (2 items).

The results for several items, particularly those with negative phrasing, raise the possibility of misinterpretation of the question, rather than any substantive change in attitudes. The following items are examples of this.

*36. If a big boy was hurting a dog in front of you, would you walk past rather than approaching him?*

Answer Chosen	Pre	Post	Difference
Most definitely	10	18	+8

Probably	8	5	-3
Possibly	38	43	+5
Probably not	25	20	-5
Definitely not	15	10	-5
Mean	3.3	2.9	-0.4*

\* p<.05

Ten fewer students gave the desirable negative response on the post questionnaire for this question.

*41. Would you join in on an outing with your friends, if they were planning to shoot wild birds?*

Answer Chosen	Pre	Post	Difference
Most definitely	3	8	+5
Probably	3	3	0
Possibly	12	18	+6
Probably not	42	40	-2
Definitely not	36	27	-9
Mean	4.1	3.8	-0.3**

\*\* p<.01

For question 41, eleven fewer students gave the desirable negative response on the post questionnaire.

*5. I am afraid of animals*

Answer Chosen	Pre	Post	Difference
Most definitely	25	36	+11
Probably	6	7	+1
Possibly	31	21	-10
Probably not	23	21	-2
Definitely not	11	11	0
Mean	2.9	2.6	-0.3**

\*\* p<.01

For this question, twelve additional students gave the undesirable positive response on the post questionnaire. This question does not seem to be overly complex, so something else accounts for this counterintuitive result. A closer inspection of the results by site provides a clue, as shown in the table below.

Site	Pre mean	Post mean	Difference
Shire	3.0	2.7	-0.3
Chimutu	2.9	2.2	-0.7
Thete	2.2	2.8	+0.6
Chidewere	3.4	2.8	-0.6

<b>Total</b>	2.9	2.6	-.03
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It appears that the results for the Thete site are the source of the discrepancy, suggesting an anomaly in questionnaire administration at that site, likely the way in which the question was read on the post questionnaire. It is not likely that children in Thete would develop a greater fear of animals as a result of the WAN program.

### **E. Attendance**

As noted above, attendance at all four sites was very good, averaging 90% participation in the WAN Humane Education for Happiness and Well-Being activities. By all accounts, the activities were very well received and students participated enthusiastically.

One aspect of the analysis plan was to assess the impact of participation on changes in student CHI, with the hypothesis that students who had more exposure to the program would tend to strengthen their humane attitudes more than students who attended less often. However, with attendance and participation at such a high level, there was little variation in attendance and therefore no meaningful relationship between hours of participation and the Compassion/Happiness Index.

The WAN humane educators reported that at the beginning of the pilot, students were reluctant to participate. They were not open enough, and clearly scared of taking part. But as the course went on the pedagogy helped them to open up and develop confidence. They then began to think for themselves and give feedback. This also had other impacts – including improved relationships between learners (becoming more positive, compared to a feeling of lack of trust and defensiveness at the beginning) and greater self-confidence. This development of confidence and self-worth, combined with improved class relationships, would likely have led to an increase in well-being.

### **F. Conclusions**

The data collected for this pilot study indicate that the WAN Humane Education for Happiness and Well-Being program was very well received in the four participating sites by students and teachers, and resulted in statistically significant gains in students' humane attitudes.

88% of students said that participating in the activities changed their attitudes toward animals; 90% said that their attitudes toward the environment were affected, and 86% said that the activities changed their attitudes toward people. These results were generally supported by mean gains in the Compassion/Happiness Index, a 60-item inventory of students' humane attitudes.

Teachers reported that participating in the WAN program resulted in improved student behavior and social skills, enhanced compassion for animals, and promoted respect for nature and the environment.



Some inconsistencies in the data suggest a possible review of questionnaire administration procedures and rephrasing of some questionnaire items, but in general the data gathered were complete and accurate. The results provide solid evidence to support the continuation and expansion of this effective program.

## APPENDIX A: TEACHER FEEDBACK SUMMARY

*Has the introduction of the humane education pilot project contributed to the following in your class/school this year?*

### 1. Improved critical thinking skills

Most definitely <b>56%</b>	Probably <b>28%</b>	Possibly <b>16%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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### 2. Raising standards of achievement (academic results)

Most definitely <b>38%</b>	Probably <b>28%</b>	Possibly <b>28%</b>	Probably not <b>6%</b>	Definitely not <b>0%</b>
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### 3. Developing innate wisdom/intelligence of learners

Most definitely <b>56%</b>	Probably <b>31%</b>	Possibly <b>9%</b>	Probably not <b>3%</b>	Definitely not <b>0%</b>
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### 4. Did the humane education activities influence students' classroom learning in any other ways?

**Yes 91%**      **No 9%**

### 5. Improved school attendance

Most definitely <b>78%</b>	Probably <b>9%</b>	Possibly <b>9%</b>	Probably not <b>9%</b>	Definitely not <b>3%</b>
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### 6. Improved learner behaviour

Most definitely <b>44%</b>	Probably <b>34%</b>	Possibly <b>19%</b>	Probably not <b>3%</b>	Definitely not <b>0%</b>
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### 7. Improved interactions between pupils and staff

Most definitely <b>53%</b>	Probably <b>25%</b>	Possibly <b>22%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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### 8. Improved learners' ability to concentrate (flow), and become engrossed in lessons.

Most definitely <b>38%</b>	Probably <b>44%</b>	Possibly <b>16%</b>	Probably not <b>3%</b>	Definitely not <b>0%</b>
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### 9. Contributed to a quieter, calmer class environment

Most definitely <b>38%</b>	Probably <b>44%</b>	Possibly <b>13%</b>	Probably not <b>3%</b>	Definitely not <b>3%</b>
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10. Improved the level of cooperation and helpfulness in the class

Most definitely <b>53%</b>	Probably <b>29%</b>	Possibly <b>19%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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11. Decreased the level of bullying in the class

Most definitely <b>56%</b>	Probably <b>16%</b>	Possibly <b>22%</b>	Probably not <b>3%</b>	Definitely not <b>3%</b>
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12. Helped the class to resolve conflicts peacefully

Most definitely <b>50%</b>	Probably <b>28%</b>	Possibly <b>19%</b>	Probably not <b>3%</b>	Definitely not <b>0%</b>
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13. Improved the readiness of learners to volunteer

Most definitely <b>44%</b>	Probably <b>38%</b>	Possibly <b>19%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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14. Did you find that the course helped you to understanding your learners better?

Most definitely <b>59%</b>	Probably <b>22%</b>	Possibly <b>19%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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15. Did the humane education activities have an effect on students' attitudes and/or behaviour?

**Yes 94% No 6%**

16. Improved learners' social skills (how they interact with other learners)

Most definitely <b>69%</b>	Probably <b>19%</b>	Possibly <b>13%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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17. Improved relationships between learners in the class

Most definitely <b>50%</b>	Probably <b>31%</b>	Possibly <b>16%</b>	Probably not <b>3%</b>	Definitely not <b>0%</b>
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18. Improved learners' communication skills (their ability to communicate effectively with other learners)

Most definitely <b>56%</b>	Probably <b>41%</b>	Possibly <b>3%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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19. Enhanced the ability of learners to access and apply moral values

Most definitely <b>38%</b>	Probably <b>31%</b>	Possibly <b>31%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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20. Contributed towards the development of valuable life skills

Most definitely <b>50%</b>	Probably <b>28%</b>	Possibly <b>22%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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21. Contributed towards creating a more positive school environment

Most definitely <b>47%</b>	Probably <b>34%</b>	Possibly <b>9%</b>	Probably not <b>9%</b>	Definitely not <b>0%</b>
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22. Improved levels of happiness and well-being in the class

Most definitely <b>50%</b>	Probably <b>28%</b>	Possibly <b>22%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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23. Contributed towards an improvement of learners' self worth and confidence

Most definitely <b>34%</b>	Probably <b>50%</b>	Possibly <b>16%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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24. Helped learners to work towards "flourishing" or reaching their full human potential

Most definitely <b>31%</b>	Probably <b>31%</b>	Possibly <b>31%</b>	Probably not <b>6%</b>	Definitely not <b>0%</b>
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25. Had positive spin-offs on family members and/or the local community

Most definitely <b>25%</b>	Probably <b>38%</b>	Possibly <b>34%</b>	Probably not <b>3%</b>	Definitely not <b>0%</b>
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26. Improved the level of kindness and compassion in the class

Most definitely <b>59%</b>	Probably <b>25%</b>	Possibly <b>13%</b>	Probably not <b>0%</b>	Definitely not <b>3%</b>
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27. Improved levels of care and compassion for animals

Most definitely <b>75%</b>	Probably <b>19%</b>	Possibly <b>6%</b>	Probably not <b>0%</b>	Definitely not <b>0%</b>
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28. Strengthened the level of respect and awareness for nature and the environment

Most definitely	Probably	Possibly	Probably not	Definitely not
<b>72%</b>	<b>25%</b>	<b>3%</b>	<b>0%</b>	<b>0%</b>