

2016

START 2016.

Submission by 6th class, Boland

Scoil Íde, Corbally, Limerick

Does an upcoming triathlon (or having a physical goal) lead to increased participation in fitness activities and increased fitness levels?



Step one: Deciding on our trial question.

Our trial question is...

Does having a physical goal to work towards increase participation in fitness activities and therefore increase a person's fitness levels?

Every year, the children in 6th class participate in a Junior Triathlon. It takes place in June and is one of the highlights of the school year. Now in its fifth year, it is common to see children from 6th class out training in advance of the triathlon. This got us thinking...

Does having a physical goal to work towards increase participation in fitness activities and therefore increase a person's fitness levels?

RIGHT & BELOW

The children brainstorm in groups and then split into pairs as we think of a Trial Question for the START Competition 2016



5th and 6th class have recently completed a Beep Test to test their fitness levels. We got the results which we used as a baseline fitness level.



We told the 5th class that they needed to improve their fitness but we never gave them a goal to work towards, we told the 6th class the same thing but we gave them a goal to work towards which is the 6th class triathlon.

We plan on testing them using the Beep Test again in a few weeks before the 6th class have completed their triathlon to see if the 6th classes fitness levels have improved more than the 5th classes.

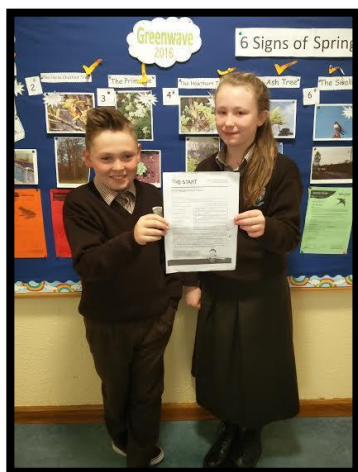
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Step two: Registering our trial.

Before we could start our trial, we had to think of a trial question. The question we thought of was

Does having a physical goal to work towards increase participation in fitness activities and therefore increase a person's fitness levels?

When we came up with our question we had to register it. Registering a trial is necessary so everyone knows the trial is going to take place. This prevents the same trials being repeated unnecessarily.



LEFT: Shea and Tara with our trial registration form prior to popping it in the post.

We posted off our trial question at the start of April, with the hope of getting an email back to confirm that we could go ahead with our trial.

We continued to work on it while waiting for a reply. Then we got an email to confirm our trial had been accepted and that we could go ahead and that was great. In the meantime we realised that fourth class were participating in a Fit for Life Challenge. This challenge will culminate in the children running 3km in June. We decided to include these children in our trial just to increase our sample size. We studied "sampling" in maths and learned about the importance of using an appropriate sample size.

RIGHT: Trial registration form

A photograph of a completed trial registration form for the START 2016 competition. The form is titled "Trial Registration Form" and contains fields for the name of the school, the name of the teacher, the name of the class, the name of the trial, the date of the trial, and the name of the person who submitted the form. The form is filled out with handwritten text, and the name "Peter Long" is visible at the bottom.

Step three: Selecting our outcomes.

This trial is to see if having an upcoming physical challenge or goal will increase student's participation in fitness activities and therefore increase fitness levels. We will measure fitness levels by using a Beep Test. We will be testing one class from each of the 4th, 5th and 6th standards.

We will take the results of their first Beep Test. After the first Beep Test every class is told how important physical activity is and how they should be doing some type of exercise outside of school. The 4th and 6th classes have upcoming challenges to prepare for while the 5th class do not. We will re test at the month's end and compare the results of the two Beep Tests.



LEFT:

Millie & Zeynep preparing our letter of consent which we gave to all children participating in the trial. Parents had to sign this form before we could go ahead with the trial.

BELOW: We have included a copy of this letter.

Consent Sheet

Students Teaching Awareness of Randomised Trials (START)

Welcome to Scoil Íde's

"Factors Affecting Participation in Physical Activities Trial"

Does having a physical goal to work towards increase participation in fitness

activities and therefore increase a person's fitness levels?

Please read the next paragraph which will explain what we want you to do. This project is about

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We are running a clinical trial in Scoil Íde to see if having a physical goal to work towards will motivate kids to become more physically active. Recently your child has completed a beep test and they will be taking another in a short amount of time. We are looking for your permission to use their results in our trial. We may ask your child to complete a quick survey and we may take a few pictures and videos which we will include in our final submission. All of your child's information will be kept confidential and no names will be given.

Circle YES if you understand the points below. If you do not understand, ask for more information.

I understand what this project is trying to do... YES

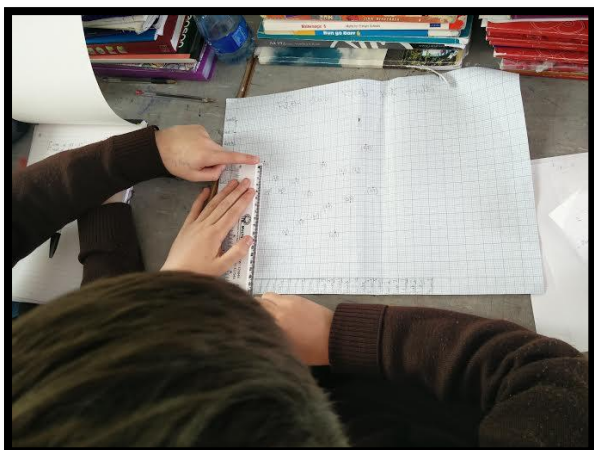
I understand that I can stop taking part in this project at any time YES

I am happy to let my child take part in this project YES

Please sign your name here:

Date:

6th Class has been training for their triathlon. In the triathlon, they will be running 1km, swimming for 350m and cycling 2km. 4th Class has also been running for their Fit for Life Challenge. Fit for Life is about having a healthier lifestyle and encouraging children to exercise regularly. The 4th Class children have been encouraged to do 15-20 minutes of exercise every day for one month. At the end of the May they will attempt to run a 3km run. They also learn about the importance of a balanced and healthy diet. It would be nice if parents could do some of the exercise with them. 5th Class don't have a physical challenge to prepare for. We're excited to see the results and we look forward to seeing how much or little they've come on.



LEFT: Initially, we graphed the first set of results using our graph copies. We then decided that a digital submission might be more efficient so we took our data and entered it into Microsoft Excel

RIGHT: 6th class children running down the Shannon Fields as part of their training for the Scoil Íde Junior Triathlon



Step four: Who is taking part in our study?

In this survey, we have three classes involved. Our control group, who has no upcoming physical test to train for, is fifth class. The age group here is ten-twelve. We also have a fellow sixth class involved, who has an upcoming triathlon to train for. The age group here is eleven-thirteen. We included fourth class for further backup data. The age group here is nine-ten. We have included the ages in this piece because we wonder if the fitness levels will vary according to a person's age. We also figured that this could form the basis of another trial.

During our trial we noted that the classes we were observing were taught by three male teachers who themselves takes part in a physical activity. We wonder if the teacher's interests will encourage their pupils. The 4th class teacher is a male thirty-seven year old male who has an interest in soccer, especially indoor soccer and astro soccer, which he plays all year long. He also takes part in marathons and is involved with the school's rugby team. The 5th class teacher is a thirty- six year old male who absolutely loves to play golf. Finally, the 6th class teacher is a thirty year old male

RIGHT: 4th class coming back from a run as 6th class head off on a run down to The Shannon Fields.



who runs marathons. He is a great cyclist, and thought of and organizes the triathlon each year for the sixth class pupils. All these teachers would *most* likely encourage their pupils to be fit. This may play a role in the overall fitness levels of each class and could form the basis of a follow up trial.

RIGHT: 5th class children participating in the first Beep Test to give us a baseline fitness level



Step five: Dividing up our trial subjects.

In our clinical fitness trial we are using two groups. Our first group is called the “Control Group (CG): the control group are 5th class. We have told them that fitness is very important and vital in our lives. The 5th class have been tested with the beep test but will not be taking part in the test. Having said that we will see if the 5th class’s fitness improves without having a fitness goal to work towards unlike the Test Group when we retest them on April 28th.

Our second group is the Test Group (TG): the test group are the 6th class. (4th class subsequently became a backup TG) These are part of the test. The 6th class like the control group have taken part in an initial beep test in early April. The Test Group’s results will be compared with the Control Group but the only difference is that the 6th class will have a goal to work towards. That goal is the Scoil Íde Junior Triathlon.



LEFT: Some of our class preparing notes for our submission.

Step six: Making it a secret. Was this possible?

We didn’t have major issues keeping our Trial a secret from the control group. Our school is very big for a primary school with nearly eight hundred pupils attending Scoil Íde. There are always lots of projects taking place at any one time in the school so children tend not to take too much notice of other classes doing things that may not be part of the normal routine of a school day.

Step seven: Conducting our study.

The classes completed the Beep Tests during the week of April 4th -8th of .All participants were spoken to after their Beep Test and reminded how important being physically active is that everyone needs to be keeping fit or at least trying to. The trial we are doing is to see if having a goal to work towards will improve your fitness or make you try harder at getting fitter ,so you can complete your goal with ease or . The next beep test is on the week of the 25th to the 29th of April. Once all 4th 5th and 6th have completed it for the second time we will compare their scores to the first time. We will look at the difference and hopefully see an Improvement.

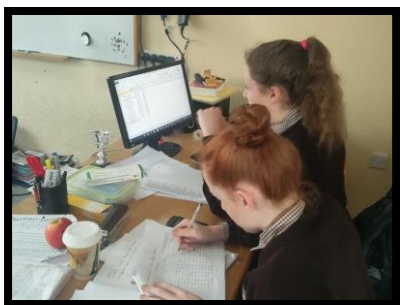
Below: Questionnaire that all participants filled out after initial Beep Test

PLEASE ANSWER THE FOLLOWING QUESTIONS.

- 1: ARE YOU MALE OR FEMALE? _____
- 2: Did the score you got on your first Beep Test make you more determined to get fitter? Yes or No. _____
- 3: Would having a Triathlon or A Fit for Life Challenge make you more likely to train in order to prepare for this event? Yes or No.

- 4: Are you fit? Yes or No.
- 5: Would you like to be fitter? Yes or No. _____
- 6: Have you trained outside of school since we did the Beep Test? Yes or No_____

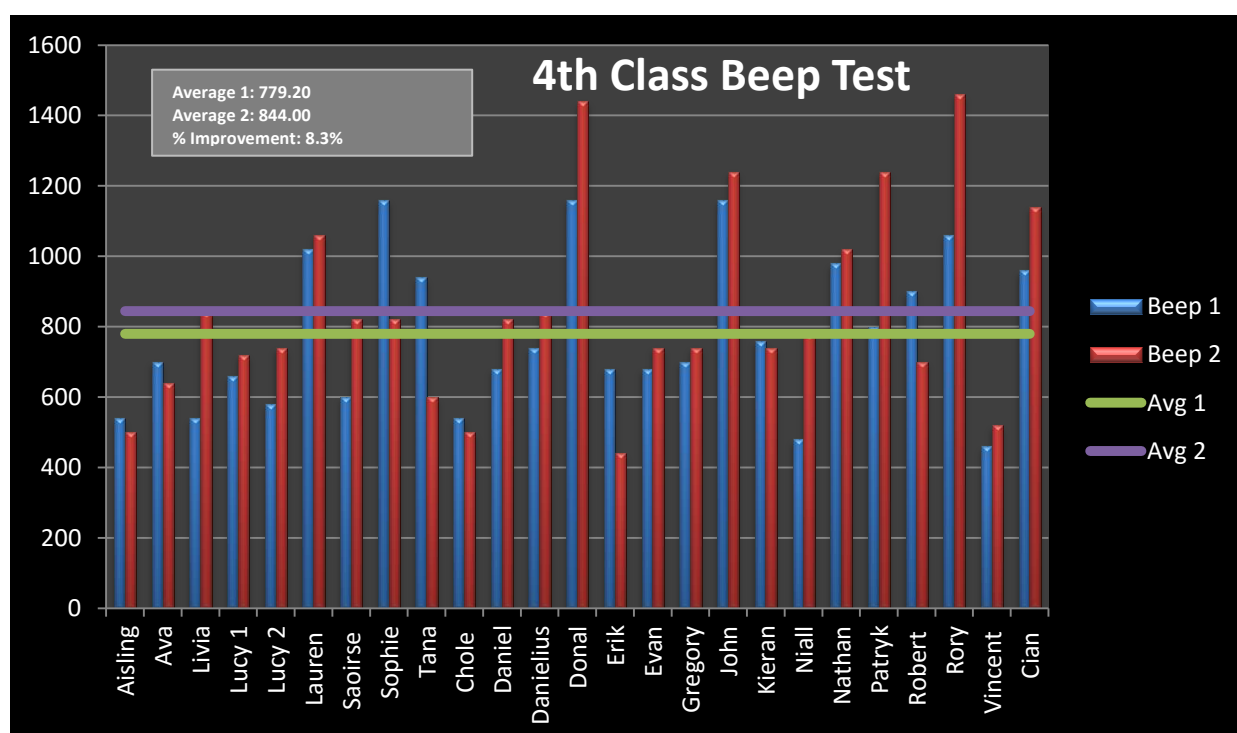
Step eight: Reporting our findings.

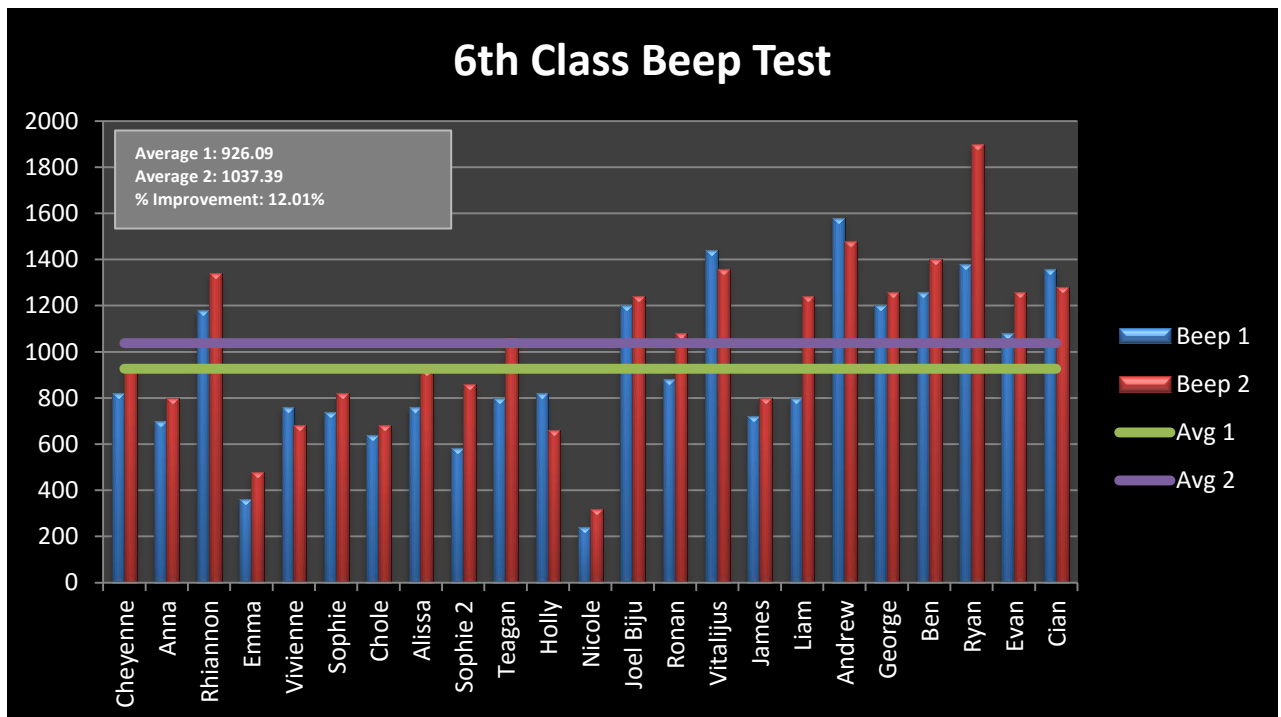
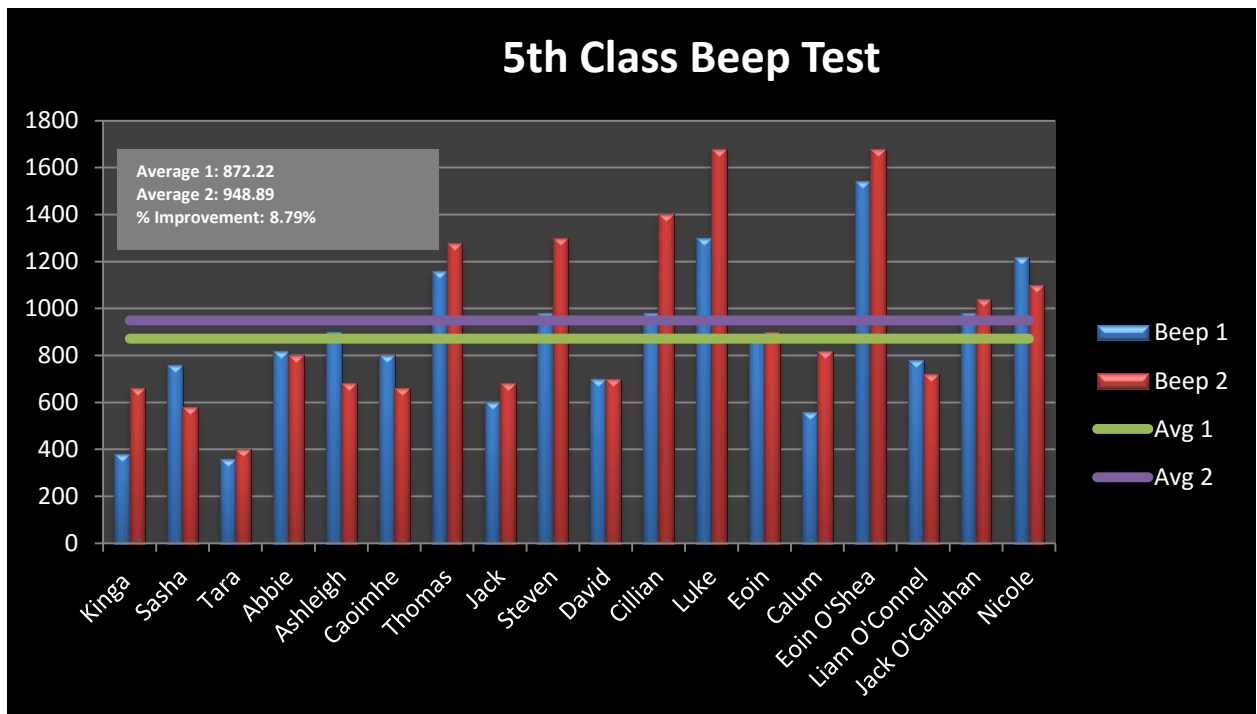


The girls inputting data from Beep Tests into Excel which we then graphed using Excel.

We gathered our data and graphed it using Microsoft Excel.

This was very difficult but we were entering the competition digitally so we had no other choice. It took a very long time. The graphs show the distances covered by children in meters over the two Beep Tests and whether they improved or not.





On closer inspection, the graphs reveal that the scores of 68% of children in 4th class improved from Beep Test 1- Beep Test 2.

The graphs reveal that the scores of 55% of children in 5th class improved from Beep Test 1- Beep Test 2.

The graphs reveal that the scores of 78% of children in 6th class improved from Beep Test 1- Beep Test 2.

We also paired our graphs with the results of our six part questionnaire. These questions were asked the day before the second Beep Test.

4th class results

28 Respondents: 16 male, 12 female

- 2: Did the score you got on your first Beep Test make you more determined to get fitter? 24/28 said yes.
- 3: Would having a Triathlon or A Fit for Life Challenge make you more likely to train in order to prepare for this event? 25/28 said yes.
- 4: Are you fit? 25/28 said yes
- 5: Would you like to be fitter? 25/28 said yes
- 6: Have you trained outside of school since we did the Beep Test? 23/28 said yes

5th class results

29 Respondents: 16 male, 13 female

- 2: Did the score you got on your first Beep Test make you more determined to get fitter? 24/28 said yes. 28/29 said yes
- 3: Would having a Triathlon or A Fit for Life Challenge make you more likely to train in order to prepare for this event? 27/29 said yes.
- 4: Are you fit? 24/28 said yes
- 5: Would you like to be fitter? 29/29 said yes

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6: Have you trained outside of school since we did the Beep Test? 27/29 said yes

6th class results

28 Respondents: 13 male, 15 female

2: Did the score you got on your first Beep Test make you more determined to get fitter? 24/28 said yes. 22/28 said yes

3: Would having a Triathlon or A Fit for Life Challenge make you more likely to train in order to prepare for this event? 25/28 said yes.

4: Are you fit? 26/28 said yes

5: Would you like to be fitter? 27/28 said yes

6: Have you trained outside of school since we did the Beep Test? 26/28 said yes

The graphs and questionnaire responses are interesting. Responses to the questionnaire from all three groups suggest that they share a similar attitude to fitness and their levels of physical activity. Results from the second Beep Test show that all groups made improvements. However, in the control group, 6 children refused to take the Beep Test a second time. When we looked at their score from the first Beep Test, they were among the poorest performers in this class. We had hoped that at least 24 children would participate in the trial from each class. The control group provided a quarter less with 18 children taking the second Beep Test.

Overall, the Test Group performed 4% better than the Control Group after a period of three weeks while 23% more children in the 6th class group improved their score than in the 5th class group. 13% more children in the 4th class group improved their score than in the 5th class group. This suggests that there is merit in the belief that....

having a physical goal to work towards increase participation in fitness activities and therefore increase a person's fitness levels?

Clinical trial regulated and submitted by the children of 6th class, Boland in Scoil Íde, Corbally