Moving Well-Being Well
Getting Ireland’s Children Moving

Stephen Behan - PhD Candidate
Supervisors: Dr. Johann Issartel, Dr. Sarahjane Belton & Prof. Noel O’Connor
THE STORY SO FAR

2016 Overview of the existing facts

2017 Outlining why the research is necessary

2017 Large scale evaluation to get a snapshot of Irish children’s physical literacy

2018 Pilot intervention to address deficiencies identified in Phase 1

2018/19 Dissemination through publications and beyond

2019 Exploratory Trial

Background | Rationale | Phase 1 | Phase 2 | Dissemination | Future Direction

THE STORY SO FAR
Moving Well Being Well
Background

“Ireland to be the most obese nation in Europe by 2030”
World Health Organisation

“One in four children overweight or obese”
Growing up in Ireland Report
ACTIVE KIDS DO BETTER IN LIFE
WHAT THE RESEARCH SHOWS ON THE COMPOUNDING BENEFITS

ACTIVE PARENTS ASSOCIATED WITH ACTIVE KIDS

KIDS OF ACTIVE MOMS ARE 2X MORE LIKELY TO BE ACTIVE

INTERGENERATIONAL CYCLE

COMPRESSION OF MORBIDITY 1/3 THE RATE OF DISABILITY

REDUCED RISK OF HEART DISEASE, STROKE, CANCER, DIABETES

MORE PRODUCTIVE AT WORK

PHYSICALLY ACTIVE CHILDREN
1/10 AS LIKELY TO BE OBESE
UP TO 40% HIGHER TEST SCORES
LESS SMOKING, DRUG USE, PREGNANCY AND RISKY SEX
15% MORE LIKELY TO GO TO COLLEGE
7-8% HIGHER ANNUAL EARNINGS
LOWER HEALTH COSTS

EARLY CHILDHOOD  ADOLESCENCE  ADULTHOOD
Lots of initiatives to promote physical activity.....
It's not working
What motivates children to be physically active?

- Motivation & Confidence
- Knowledge & Understanding
- Physical Competence
Physical Literacy

- Motivation & Confidence
- Knowledge & Understanding
- Physical Competence

Physical Activity
Physical Literacy

“Physical Literacy is the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life”

The International Physical Literacy Association, May 2014
Rationale

A lack of research in Ireland

Some small studies

Need Irish context
**Background**

- 2016: Overview of the existing facts

**Rationale**

- 2017: Outlining why the research is necessary

**Phase 1**

- 2017: Large scale evaluation to get a snapshot of Irish children’s physical literacy

**Phase 2**

- 2018: Pilot intervention to address deficiencies identified in Phase 1

**Dissemination**

- 2018/19: Dissemination through publications and beyond

**Future Direction**

- 2019: Exploratory Trial
Phase 1 - Data Collection

- 2,148 children assessed
- 12 counties across all four provinces
- 44 schools
- 100 classes from Junior Infants to 6th Class
- 10,000+ kilometres travelled
Phase 1 - Data Collection

What we measured:

- FMS Proficiency
- Perceived FMS Competence
- Height, Weight (BMI) and Waist Circumference
- Strength - Grip and Plank
- Flexibility
- VO2 Max
- Physical activity - Self reported, parent reported and pedometers (sample)
- Motivation
- Self Efficacy
- Knowledge and understanding*
- Wellbeing
- Body Image
- Neurocognitive assessment
- Teacher questionnaire
- Parents questionnaire

All validated instruments for measurement
Phase 1 - Data Collection

How we measured:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Trial 1</th>
<th>Trial 2</th>
<th>Total Score</th>
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<tbody>
<tr>
<td>Arms move in opposition to legs, elbows bent</td>
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<td>Brief period where both feet are off the surface</td>
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<td>Narrow foot placement landing on heels or toes (not flat footed)</td>
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<td>Non-support leg bent about 90 degrees so foot is close to their buttocks</td>
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Total Score: 6
Fundamental Movement Skills

The foundational movements needed to progress to the more specialised and complex skills used in play, games and specific sports.
Phase 1 - Results

FMS Progression across Primary School

Mastery achievable by age 8
Phase 1 – Motivation Results

**Intrinsic**
- We do because we want to
- Internally driven

**Identified**
- We do because we know we should
- Driven by knowledge

**Introjected**
- We do because we feel we have to
- Feel guilty otherwise

**External**
- We do because we have to
- Outside force exerted

Behavioural Regulation In Exercise Questionnaire (BREQ)
Phase 1 – Motivation Results

Quality of Motivation as a predictor of FMS

Identified       Introjected       External

Intrinsic

Not significant in either male or female participants
Phase 1 – Motivation Results

Quality of Motivation as a predictor of FMS

Intrinsic  Introjected  External

Identified

Only significant for male participants
Phase 1 – Motivation Results

Quality of Motivation as a predictor of FMS

- Intrinsic
- Identified
- External
- **Introjected**

Only significant for male participants
Phase 1 – Motivation Results

Quality of Motivation as a predictor of FMS

Intrinsic  Identified  Introjected

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Significant for both male and female participants
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Moving Well
Being Well
Phase 2 – Pilot Intervention

- 30 minute FMS based class led by coach
- Teacher repeats the same class
- Coach upskills teacher on the job

- Active learning in classroom
- 5 minutes every day
- Skills and activity complexity gradually increases

- Home activity once a week
- Worksheet to be completed with parent/guardian
- Activity and knowledge components
Lesson Notes:

What went well:

What didn’t work so well:

Targets for next lesson:


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Phase 2 – Pilot Intervention

8 Home Activity worksheets

Teacher to distribute once a week

Children to complete with their parents

ACTIVITY - THROWING

DESCRIPTION OF ACTIVITY
Ask someone at home to join in
1. Get any ball and throw it against a wall. (Tip: If you can’t find a ball, roll up a pair of socks and use them! Just make sure they are clean and not smelly!!)
2. Do you bring your arm backwards first to help you throw? (Tip: look at the picture for help!)
3. Can you throw with your other hand? Does it feel different?
4. Ask someone to throw with you. Who can throw it the furthest?
5. Can you think up a throwing game? Play for 1 minute with someone.

BRAINY BITS
Fun, Good, Stronger
This story about Sally is missing some words.
Fill in the missing words below.
Each word can only be used to fill one blank space in the story.

Sally tries to be active every day.
Running every day is good for her heart and lungs.
Sally thinks that physical activity is _______ and is also _______ for her.
She also does push-ups and sit-ups that make her __________.
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BRAINY BITS

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Future Direction

Exploratory Trial just completed – 1,000 kids
Large emphasis on teacher and child’s experience

Next Step is a nationwide Randomised Control Trial
Aim to include approx 10,000 children
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The School of Health and Human Performance
The Insight Centre for Data Analytics