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# RESEARCH REPORT

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GAA HAVE A BALL PILOT



## SUMMARY

GAA Have a Ball is a series of fun-based exercises that contribute to the development of rudimentary and fundamental movement skills among children aged 4-12 years. The programme was piloted in Limerick (Killinure National School and Lisnagry National School) during May & June 2017 by the GAA National Games Development and Research Department.

A local volunteer coach, Willie Walsh, ran the programme with teachers in both schools, with external support from Limerick GAA Games Development Administrator, Peter Nash. The Intervention involved six weekly 40 minute sessions with three classes (Senior Infants, First and Second).

Children participating in the sessions underwent a Fundamental Movement Skill (FMS) assessment - Test of Gross Motor Development, 3rd edition - before and after the intervention, as part of the 'Moving Well-Being Well' study being conducted by Dublin City University's Insight Centre for Data Analytics. The tests were conducted and results produced by Stephen Behan, Cameron Peers, Dr Johann Issartel and Dr Sarahjane Belton. The assessment results showed significant improvements in the participants' FMS after the intervention: an overall average increase of 7.3%. This is a remarkable increase, considering the high level of FMS ability among participants prior to the intervention.

It is recommended that Have a Ball should become part of a wider offering of Gaelic games-related activities for children in primary schools, GAA clubs and/or community settings that would contribute to the children's attainment of 60 minutes of moderate to vigorous physical activity per day.



A special thanks to the following people for making the GAA Have a Ball programme pilot a success:

- **All children who participated in the sessions.**
- **Willie Walsh (volunteer Coach, Murroe Boher GAA, Club)**
- **Principal, Carmel Power and Deputy Principal, Kevin Barry and the teachers of Killinure N.S., Limerick**
- **Principal, Michael Feeney and the teachers of Lisnagry N.S, Limerick**
- **Noel Hartigan & Peter Nash (Limerick GAA Games Development)**
- **Stephen Behan, Cameron Peers, Dr Johann Issartel and Dr Sarahjane Belton of Dublin City University's Insight Centre for Data Analytics.**

# FUNDAMENTAL MOVEMENT SKILLS ASSESSMENT

Children participating in the sessions/intervention underwent a FMS assessment before and after the intervention, as part of the wider titled 'Moving Well-Being Well' study being conducted by Dublin City University's Insight Centre for Data Analytics. The tests were conducted and results produced by Stephen Behan, Cameron Peers, Dr Johann Issartel and Dr Sarahjane Belton.

## ASSESSMENT

The participants were assessed using a validated and reliable assessment tool called the Test of Gross Motor Development (3rd edition), otherwise known as the TGMD-3. The TGMD-3 has been used in countless studies throughout the world and has been well established as one of the gold standard measuring tools for Fundamental Movement Skills. The assessment is broken into two subsets; locomotor and object control. Locomotor skills are defined 'as those that measure the coordinated movement of the centre of gravity from one point to another' (Ulrich, 2000). Object control skills consist of activities such as catching, throwing, kicking (Stodden et al., 2008).

## PROCEDURE

Participants from both schools underwent an initial assessment of the above before undergoing a six-week intervention. At the conclusion of the mentioned intervention, the research team conducted the same assessments as before, using the same protocols and tools.

## RESULTS

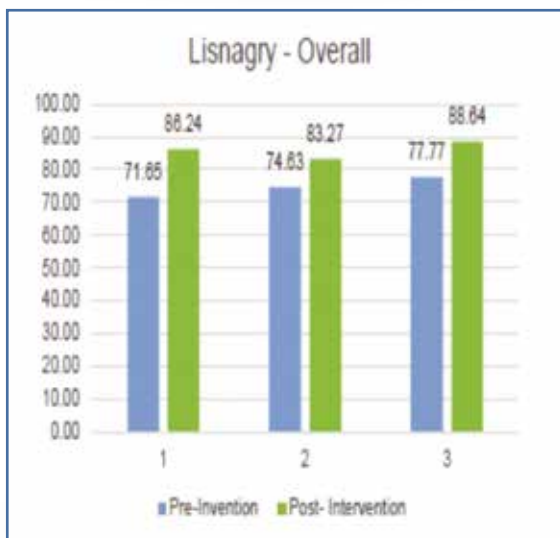
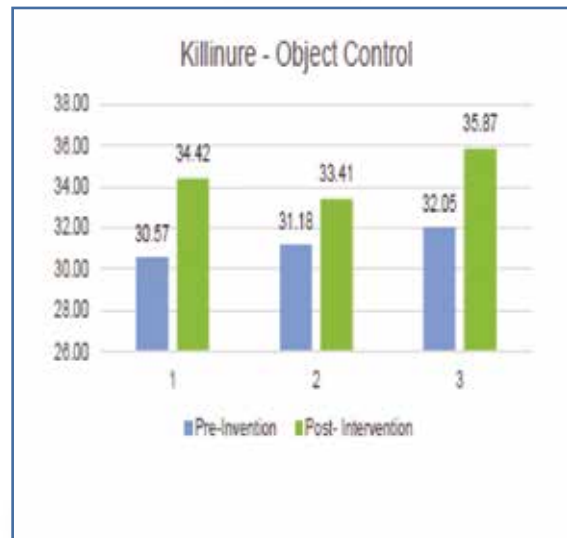
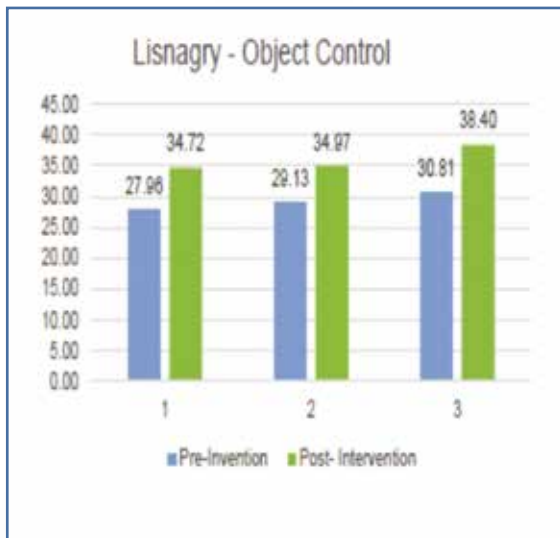
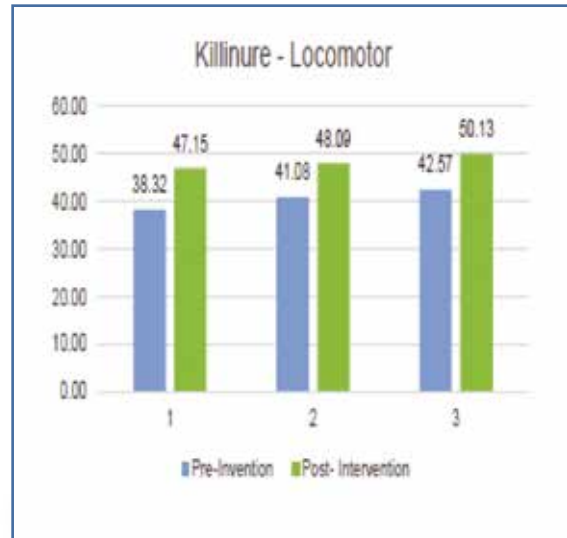
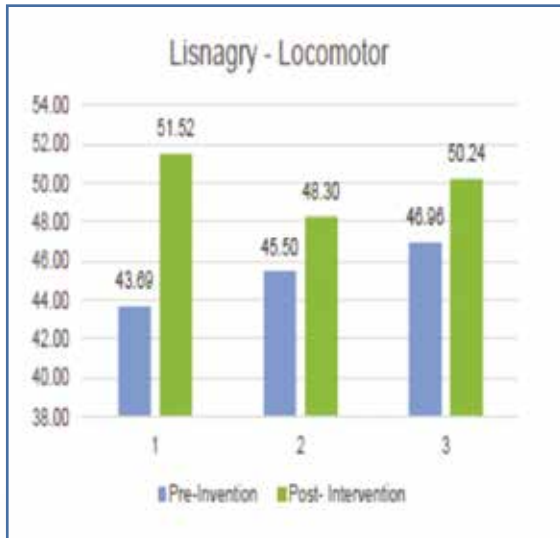
The results show an increase in both subsets across the assessments. See table 1 below.

School	Pre-Intervention	Descriptive Rating	Post-Intervention	Descriptive Rating	% Increase
Lisnagry Class 1	71.7	Average	86.2	Average	10%
Lisnagry Class 2	74.6	Average	83.27	Average	6%
Lisnagry Class 3	77.77	Average	88.64	Average	7%
Killinure Class 1	68.9	Below Average	81.6	Average	8%
Killinure Class 2	72.2	Below Average	81.5	Average	6%
Killinure Class 3	74.6	Poor	86	Average	7%

Table 1: Results of Raw subtests scores, descriptive ratings and raw score percentage increase.

Please note that the scores listed above are the average class scores of the combined sub-tests raw scores, they are not a percentage in of themselves. The percentage increase reported is the percentage increase in each class's total raw score. The sub-tests totals and increases are detailed in the graph on the next page.

The descriptive rating, in Table 1, is a comparison to normative scores from around the world and takes age/ gender into account.





# REFLECTIONS

**CARMEL POWER, Principal of Killinure National School, Limerick  
July 11th, 2017**

## **BACKGROUND**

I've been teaching in the school since 1988 and Principal since 1998. Our school has always had a huge interest in sport and GAA in particular and it has often been said that we punch above our weight with regard to the provision of male and female inter county players across the GAA family. We have an excellent relationship with our local club Murroe-Boher and our GAA club school link has always been an integral part of our PE programme. We participate in all Cumann na mBunscol activities and many of our teachers have completed the GAA Summer Courses in Mary Immaculate College on a number of occasions! We have always embraced opportunities to enhance our expertise. Last year we piloted a physical literacy pilot programme for PDST (Professional Development for Teachers) and we were delighted to be invited to pilot "Have a Ball" as we have a great interest in the development of rudimentary and fundamental movement skills.

I began my coaching career at age 16 when I was asked to coach our U16 parish community games basketball team and I have been coaching ever since; for more years than I care to remember! My coaching experience has been in a wide variety of codes but mainly GAA; I've coached at all levels from U8 camogie to county U16 girls football and served on numerous GAA committees both at club and county level. My main area of interest has always been development and I have completed many coaching courses, as I consider coach education to be of vital importance. In recent times, I have noticed that many children are less physically active. The basic rudimentary and fundamental movement skills are vital for developing sport specific skills now have to be taught specifically, which is why we were delighted to be actively involved with the "Have a Ball" programme.

## **THE "HAVE A BALL PROGRAMME" IN KILLINURE N.S.**

We and, more importantly, our pupils thoroughly enjoyed and greatly benefited from our participation in the programme. It's fun - children do actually "have a ball". Activities are age appropriate; they cater for the children's developmental needs and they optimise fun, friendship and fair play. They encourage the children to risk error in a stimulating environment and as they master the rudimentary and fundamental movement skills the sense of accomplishment enhances the social, emotional and physical development of each child. So, from crawling and rolling, to ABCs (agility, balance and co-ordination), to RJTs (running, jumping and



throwing), to catching, passing, kicking and striking the children are enhancing their skill-sets. We're now setting them up to succeed when we introduce sport-specific skills. The result is huge improvements in bilateral co-ordination, enhanced physical literacy and, most important of all, their GAA experience is one of positivity and possibility. You only have to look to last weekend's matches to realise the level of skill required to play at the top level, from Jamie Barron's classy goal for Waterford to Donie Smith's unbelievable point for Roscommon, I'll guarantee you that children all over the country are trying to emulate both this week and those who have had the opportunity to participate in "Have a Ball" are much more likely to succeed!

### **RECOMMENDATIONS**

Our experience of the programme was totally positive but our school culture is one where we place huge emphasis on physical literacy and we love our GAA. Our top-class club link, Willie Walsh, has been involved in the development of the programme. He has a huge interest and expertise in coaching rudimentary and fundamental movement skills was a major factor in the success of "Have a Ball" His Fundamental Frame, which he developed, is an excellent coaching aid and was greatly beneficial, particularly with catching and striking and allowed the teachers to observe and correct on the spot and the children enjoy using it so much that I have completed a new section of the astro-turf play area to house it permanently so that the children can access it during recreation time also.

The video is absolutely excellent and it is clear that the children are "literally having a ball"! I feel that it is a great advertisement for the programme and indeed great publicity for our school. I have received 100% positive feedback and many enquiries as to when the programme is to be rolled out and how they can get their hands on it!

If "Have a Ball" is to succeed in all schools and clubs, I feel that it must be as accessible to those with no expertise and interest in GAA as it is to schools like ours. From experience, I have noticed that teachers will engage with programmes which are well structured; they like to have the "lesson plans" with written exercises, a list of required resources and ideally an accompanying video! Also, a major plus for this programme is that it supports the aims of the strands of the PE curriculum and schools will be delighted with such an excellent resource, particularly those schools for which PE is a challenge. Another plus is that a relatively small area is all that is needed. Maybe an initial six-week programme could be developed with three levels of exercises, beginner, improver, advanced for each movement and piloted in a number of schools? We would be delighted to continue our involvement with "Have a Ball". Thanks a million for this wonderful opportunity.



**MICHAEL FEENEY, Principal of Lisnagry National School, Limerick  
September 5th, 2017**

Lisnagry National School was delighted to take part in the piloting of the Have a Ball programme. It was very well organised. The researchers from DCU were fantastic. They were very friendly, cooperative and very good with the children. They explained the questionnaires and assessment to the teachers at the beginning. From his work with the children, I can't speak highly enough of the coach Willie Walsh. He was just fantastic. The teachers all commented on him and picked up lots of ideas and exercises. They all agreed it was a very worthwhile programme and we were delighted to be involved. One small suggestion for improvement would be the pedometers. They were not a great success. They kept falling off the children's tracksuit bottoms at home or at training in the evening and a number were lost. Some children were then getting upset they lost them. I would suggest watches or more secure pedometers would be more accurate and a better idea. To conclude, the pilot programme ran very well and efficiently. It fitted in with the teachers P.E. slot and most importantly the children enjoyed the skills. Willie said he could see the improvement afterwards also.



**WILLIE WALSH, Volunteer Coach from Murroe-Boher GAA Club, Limerick  
July 11th, 2017**

I've been a Dairy farmer since 2000 having completed my Certificate in Agriculture after my Leaving Certificate. My GAA club is Murroe-Boher in Limerick. I started playing at 10 and I am still playing this year. We are a small club, having county success at U14 in 92, U21 in 97 and Intermediate in 99 and Junior in 2016. We knocked on the door in two senior county senior semi-finals, but never made the breakthrough. Having never represented my county at underage, I finally made the minor panel in 98. Two years later I was selected on Eamonn Cregan's senior panel making my championship debut v Cork. That year Limerick went on a great run of to win three U21 All-Ireland hurling titles. I was delighted to be part of two of them.

**COACHING**

I have coached numerous underage teams and our intermediate camogie team. Three years ago, I was asked to become the local Club-School Link Coach. Since then I have completed a rudimentary movement skills course and have attended numerous fundamental movement skills courses. I have the GYM-Start Level 1 course completed with Gymnastics Ireland and, through working on the Have a Ball pilot project, I have completed an F.M.S. Assessors course at DCU.

## EXPECTATIONS

After my first-year coaching in the local schools, we all sat down and discussed the direction we felt was needed going forward. Rudimentary and fundamental movements were our primary focus, with flexibility and core/shoulder strength to be developed in tandem. GAA skills and routines were going to be used to develop our plan, working on coordination on both the right and left sides of the body (bi-lateral movement skills). My expectations of the Have a Ball programme was that all the areas that we were trying to address could be packaged in a (even though I don't like the word) structured, age appropriate way, while maintaining a FUN based environment. This allows children of all abilities to partake and become active while enjoying our games.

## THE PILOT

### AGILITY

*Equipment:* cones, ladders.

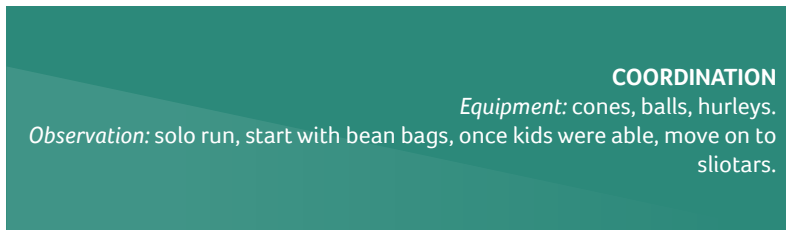
*Observation:* quick feet on their toes and ability to move off either foot, soccer players and dancers were excellent, GAA players struggled (I will comment on this later).



### BALANCE

*Equipment:* cones.

*Observation:* stand on one foot, into airplane position. Kids with balance issues or learning difficulties struggle here.



### COORDINATION

*Equipment:* cones, balls, hurleys.

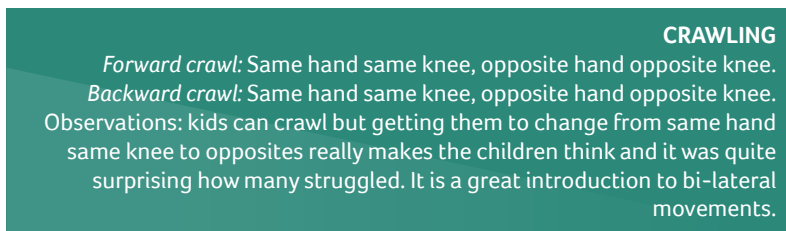
*Observation:* solo run, start with bean bags, once kids were able, move on to sliotars.



### ROLLING

*Equipment:* mats.

*Observations:* Rolling - most children had no problem with this, only issue trying to roll in a straight line, kids tend to veer off. As you go up through the classes hurley in their hands over their head and bean bag between their ankles making them concentrate more and increases the level of difficulty.



### CRAWLING

*Forward crawl:* Same hand same knee, opposite hand opposite knee.

*Backward crawl:* Same hand same knee, opposite hand opposite knee.

*Observations:* kids can crawl but getting them to change from same hand same knee to opposites really makes the children think and it was quite surprising how many struggled. It is a great introduction to bi-lateral movements.





## RUNNING

*Equipment:* cones, ladders.

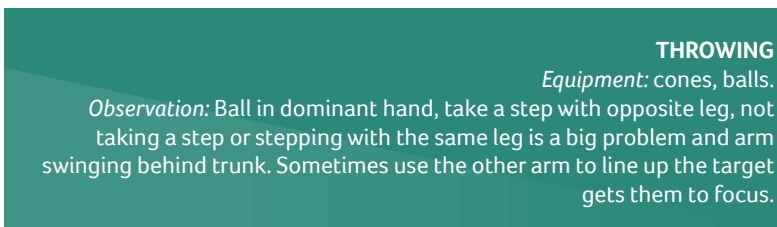
*Observations:* March, skip, run was the format, work on opposite hand opposite leg, lift and bend knee, bend elbows, head up and spring on your toes. Technique is essential, on the skip watch for same hand same knee moving together. On the run watch for flat feet and not looking forward.



## JUMPING

*Equipment:* cones, hoops.

*Observation:* Hop, vertical and horizontal jump. land on two feet, hands must swing behind trunk to create momentum.



## THROWING

*Equipment:* cones, balls.

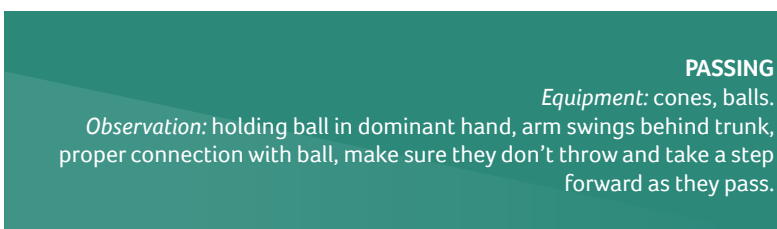
*Observation:* Ball in dominant hand, take a step with opposite leg, not taking a step or stepping with the same leg is a big problem and arm swinging behind trunk. Sometimes use the other arm to line up the target gets them to focus.



## CATCHING

*Equipment:* cones, balls.

*Observation:* one or two handed catch, keeping their eye on the ball, hands up like a tiger claw to catch and taking a step towards the ball.



## PASSING

*Equipment:* cones, balls.

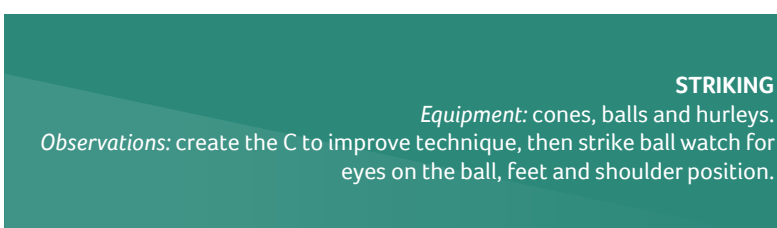
*Observation:* holding ball in dominant hand, arm swings behind trunk, proper connection with ball, make sure they don't throw and take a step forward as they pass.



## KICKING

*Equipment:* cones, balls

*Observations:* being balanced over the ball, kicking with the laces and take a step towards the ball.



## STRIKING

*Equipment:* cones, balls and hurleys.

*Observations:* create the C to improve technique, then strike ball watch for eyes on the ball, feet and shoulder position.



When coaching rudimentary and fundamental movements, kids know how to run, jump, throw, catch etc. but they just pick up bad habits. The coach's role is to spot these mistakes and correct them, so knowledge and especially observation are essential. Guided discovery is an ideal term to use for this type of coaching.

The 12 areas being addressed need variety and explanation. In terms of the ABC's (Agility, Balance and Coordination), I feel is too general. In each section there needs to be 3 to 4 movements to give teachers/coaches choice. Let's take Balance - balance on 1 leg, change legs, throw a ball from one hand to the other while on 1 leg. Lean forward into airplane on 1 leg then stretching out the raised leg, then the wings of the airplane (arms) rock from side to side while on one leg. This gives variation and it also gives a step by step guide on each movement.

I think the Have a Ball programme can run alongside or compliment the PE curriculum for the primary cycle, as developing locomotor or object control will benefit 5 out of the 6 strains i.e. athletics, dance, gymnastics, games and outdoor and adventure activities. Aquatics being the 6th. I wonder if a version can be developed for the Cul camps?

For the Striking and Catching, I used the Fundamental Frame to create game based technique in a controlled environment.

### **COMMENTS FROM THE TEACHERS I WORKED WITH**

How fundamental movements seem to be sport specific; i.e. the GAA players had excellent hand-eye coordination, but were quite poor on their feet agility, while soccer players and Irish dancers were the opposite. So it looks like coaches just pick the skills and movements that are relevant to their sport and neglect the rest. To create confident players, the full range of movements have to be worked on so as to get maximum benefit. That's where Have a Ball can be promote good practice for all coaches across a multitude of sports.

Teachers got a great benefit from having me take the session as it gave them a different perspective on observation of the children, especially the kids who struggle in class also struggled with coordination, balance etc. They also loved the simplicity of the session and how easy it was to set up and especially how much the kids enjoyed themselves. Convenience is essential to teachers as time is in short supply. They were surprised at how when good, sporty kids struggled at certain movements and how they dealt with it. Some worked it out for themselves while others skipped over it without even trying; it was something they hadn't noticed in class. They also commented on how quick the children improved from the start to the end of a session and how easy it can be to address correct movements.



## CONCLUSION

Being part of the pilot was a great experience, both in planning and developing a programme. Giving a child the proper start or getting the basics right is something I feel very strongly about and unless you are directly involved it is something that can be forgotten. So hopefully the Have a Ball logo, brand and programme will bring these issues to the public eye.

The programme needs to be developed for schools – a programme for each term that is age-appropriate with lesson plans and score cards that can be implemented and monitored to gauge improvement. For clubs, lesson plans that as they develop can be games-based. Ideally, this is where the app that Stephen and Cameron will develop will fit into the programme.

Since the promo video went on YouTube I have got excellent feedback, how well we spoke, how well the school looked, the kids looked to be really enjoying themselves and how professional it looked. Quite a few people that I met face-to-face and through email and social media wanted to know how and when will it be rolled out that they are really interested in rolling it out in their schools and clubs.

One final observation was a conversation I had with a teacher. At the end of the school day parents arrive to collect their child/children in a panic because they are in such a rush to get them to an activity or club that is providing x, y and z. Sometimes paying an obscene amount of money because it is the next best thing or for social status. As the GAA prides itself as being for everyone, people will use and abuse without sometimes fully understanding the benefits of our games from a participation, health and development perspective. I think Have a Ball can start to educate people about the benefits of playing our games, as it will develop coordination and all motor skills and the benefits gained will improve sporting, academic and work life. Other sports are looking at our games as the coordination levels are so high they are trying to learn and develop drills to benefit their players. One such man is David Lees, a former English international cricketer, who is now an ECB field based tutor and assessor who I met in January on a team holiday. We got a cricket lesson from him and we showed him hurling. He was amazed with the skill level of our quick hands and striking. I kept in contact with him and sent him videos of striking on the ground and out of the hand. We left him our hurleys so he started using them for practice as he said cricket is changing to a more dynamic sport and the hurling drills are a major benefit. His exact words were “I use all those videos you showed me forbatting 1-1 warm ups using 3oz foam balls. It has helped create fast hands and coordination. The confidence to play sweep strokes traditional method and reverse hands has been an eye opener”. Our games are the best in the world so let’s provide a resource to make them even better.

On my behalf, I’d like to thank Carmel Power, Kevin Barry and all the teachers, students and parents of Killinure N.S. Also to Limerick GAA GDA Peter Nash and to DCU’S Stephen Behan and Cameron Peers for their help and support throughout the pilot. Thanks also to Pat Culhane for his guidance and advice throughout.



