

An Analysis of 1st year Physical Literacy



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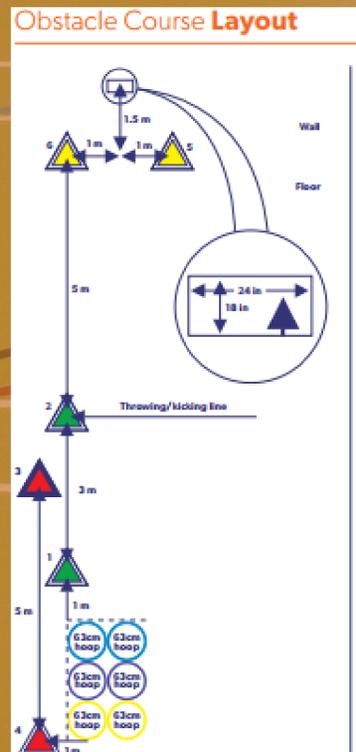
Introduction

Physical literacy is a person's ability to efficiently complete fundamental movement skills. To assess the fundamental movement skills required for participation in physically active a motor competence test was used. There are fine and gross motor skills, fine motor skills are the precise use of our muscles to carry out a specific action such as playing piano and gross motor skills are the bigger movements like kicking and throwing.

For the motor competence test we rated each skill individually with a point system and compared the points with their time. By doing this we can find out what the weaker skills are and help participants to improve their physical literacy, which allows them to be fitter and better at other sports and more physically active. The aim of the study was to assess students' fundamental movement skills so that we could see where they are in terms of fitness and help them to improve by making games related to improving the weakest skill.

Research

Each students performance was measured on the requirements for each action while being timed. At the end of the test we gave every student a grade based on their performance and how fast they completed the test.



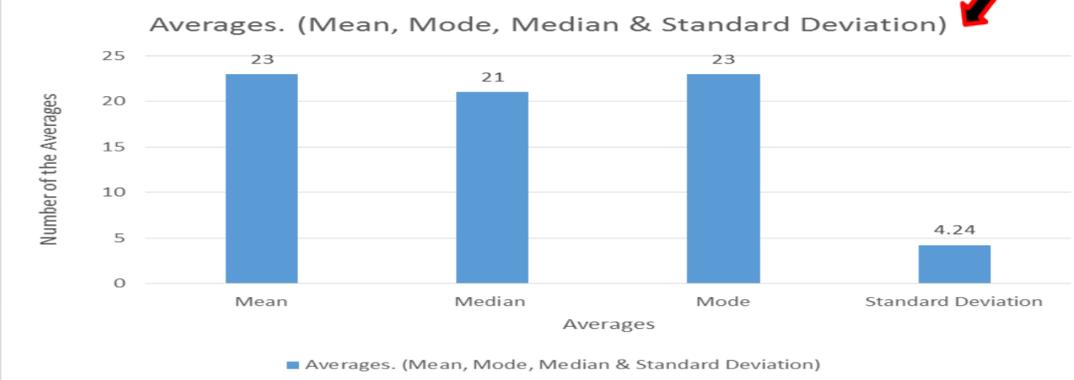
The fundamental movements Skills we tested were:
Skipping
Two foot jumping
One foot hopping
Catching
Throwing
Sliding
Kicking

Results

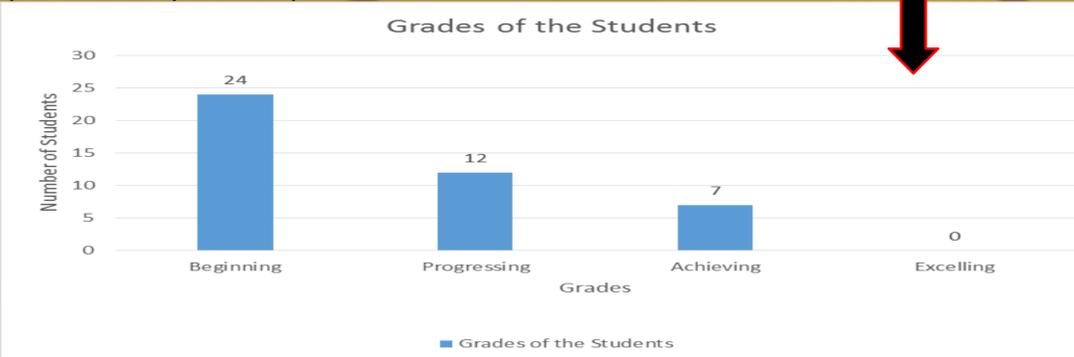
This is normative data based upon the fundamental movement skills and what scores each individual and should have in their corresponding ages and what grade their score should be. The maximum points that can be scored is 28.

	Beginning	Progressing	Achieving	Excelling
8 Years	<14	14 to 18	>18 to 23	>23
9 Years	<17	17 to 21	>21 to 24	>24
10 Years	<19	19 to 23	>23 to 26	>26
11 Years	<20	20 to 24	>24 to 27	>27
12 Years	<21	21 to 24	>24 to 27	>27

The graph below shows the averages of both of the 1st year classes using the mean, median, mode and standard deviation. The overall mean, median and mode is in the beginners grade. More work is needed to get to achieving and excelling grades. The standard deviation is at 4.24, meaning that all the scores from the group differ from the mean value by 4.24. In other words this means that the scores are somewhat close to the mean value as most participants scored in or around the mean, showing that the data is more reliable.

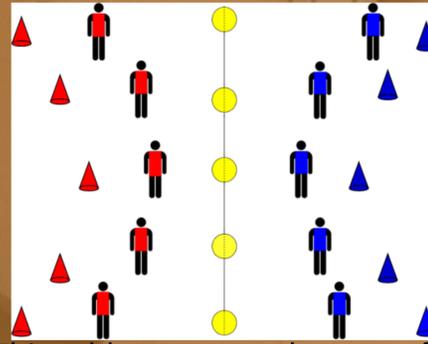


The following graph is the 1st years' students' results. From this graph, we can see that about half of the 1st years aren't physically active and/or have an unhealthy diet. Massive improvement is required for many of our 1st years yet we do have some who did well in this test. Most of our 1st years, who are around 12 years old, have the fundamental movement skills of 8 year olds if you compare these scores to the normative data.



Recommendations

Dodgebowl is a team game we created to help improve physical literacy. The game shares many similarities to dodgeball but there is one key difference, the addition of the cones. Each team has five cones, the aim of the game is to knock out all of the other teams' cones or players. This adds an extra element of tactical awareness that wasn't there before, making the game more challenging and fun.



The fundamental movement skills improved by this game are throwing, catching and dodging.

Discussion

Over 50% of our 1st year students are considered beginners on a national comparison. This can tell us about young people's lifestyles in modern day Ireland.

However, to get to the "progressing" grade, these students will need to put more effort into physical activity and exercising. Regular physical activity, exercise and sports, such as football, will be a good practice to keep the body fit and healthy and improve fundamental movement skills. With sport and physical activity physical literacy will improve through the game, such as, throwing and sliding.

Conclusion

Our aim was to examine the fundamental movement skills and improve of 1st year students' physical literacy. A motor competence test was used to determine a students' physical literacy level.

The result was unexpected and yet it proves that the majority of students were lacking in the physical literacy appropriate to their age. Over half of the class were graded as "beginning," so suitable exercises would be considered essential.

References

Healthy Active Living and Obesity Research Group 2014, Canadian Assessment of Physical Literacy (CAPL), Government of Ontario and the Ontario Trillium Foundation.