Regional contributions through athletic lessons for elementary school children

Koshu Sugisaki¹, Sho Nakazawa¹, Kazumasa Takahashi¹, Takuya Yoshida², Atsuo Maruyama¹

Key words: children, athletic lesson, regional contribution, practical report

Accepted: 9 March 2015

Abstract

We have provided athletic lessons for elementary school children for four years. These lessons are at the center of a project that aims to contribute to the local community. Initially, we decided on the following theme: "Have fun, learn to run fast, and stand on the Big Swan track." To improve children's competitive abilities, we focused on engaging them in fun activities that would lay the foundation for a life filled with sports; to motivate and engage the children, we gave them a chance to attend track meets as part of the program. This project has great potential, both as a practical approach to Track and Field instruction and as a basis for student volunteer activities in the elementary school teaching course. We believe that faculty members and students of Niigata University of Health and Welfare will be able to connect with many more children in the region through this project.

Introduction

We initiated the athletic lessons for elementary school children at the end of the 2011 academic year. These lessons are at the center of a project implemented by the university in order to contribute to the local community. The university's faculty members and students have served as coaches and provided athletic training.

The lessons have been held on a continuous basis once a week except during August and March, when the university is closed for summer and spring breaks. The number of the children who have participated in the lessons is shown in Table 1.

We needed to consider two things in terms of the direction of the project's implementation. For one, we had to determine whether to design the club with sole intent of improving competitive abilities. The other consideration centered on how we could maintain the children's motivation.

The project was launched before we could develop a clear concept of its direction with regard to these points. However, the children's responses to the project during the initial stages, combined with parental requests, eventually influenced our direction. Since many of the children loved being physically active or running, and because many parents wanted their children to be engaged in some type of sport, we decided that the goal of the lessons would be to enhance the children's running abilities while they were having fun.

While we wanted to organize activities that were fun and would improve running abilities, track and field has very few elements that promote fun or motivate children, as opposed to ball sports, to which children would likely

Corresponding author: Koshu Sugisaki

Department of Health and Sports, Niigata University of Health and Welfare, 1398 Shimami-cho, Kita-Ku, Niigata 950-3198, Japan TEL/FAX: +81-25-257-4526, E-mail: sugisaki@nuhw.ac.jp

¹Department of Health and Sports, Niigata University of Health and Welfare, Niigata, Japan

²Graduate school of Comprehensive Human Sciences, Doctoral Program in Coaching Science, University of Tsukuba, Ibaraki, Japan

respond "this is fun to do," or "I want to play more games." As a result, we arrived at the theme: "Have fun, learn to run fast, and stand on the Big Swan track." Our concept centered on using track meets, which are characteristic of the elementary school track and field, and encouraging children to participate in the track meet held at the "Big Swan," which is the largest stadium in the Niigata Prefecture. This concept was very easy to for parents understand as well. Therefore, with the goal of improving children's competitive abilities, we focused our efforts on engaging the children in fun activities and laying the foundation for a life filled with sports, and thus incorporated participation in the track meets as part of our program.

Implementation outline

1. General flow and contents

Each lesson lasts approximately 90 minutes. The activities take place on an outdoor all-

weather track, except during the winter and when it is raining, in which event they are conducted in the gymnasium. Every lesson includes ladder runs and mini hurdle runs. We have also conducted outdoor 50-meter time trials and indoor 10-meter time trials (Table 2).

2. Performance improvement

1) Basic skills

We prioritize skills such as maintaining posture, being conscious of the body axis, and exercising the iliopsoas muscles by standing still on one leg or performing calf lifts. We also perform exercises to strengthen the hip joint.

Each of these activities contributes to helping children acquire the ability to run steadily and well. Stable movements are also observed during ladder runs and mini hurdle runs.

2) Specialty skills

We have been training using the basic types of

Table 1. The number of children who participated in athletic lessons between 2012 and 2014

Academic Year	2012	2013	2014	3-year total
Number of registered children	25	19	19	63
Number of competition participants	16	11	13	40
Number of competition prize winners	2	3	0	5

Table 2. General flow and contents

Outdoor program	Indoor program	
✓ Warm-up runs	✓ Warm-up runs	
✓ Stretching	✓ Stretching	
✓ Basic skill exercises	✓ Basic skill exercises	
✓ Ladder runs	✓ Long rope passing runs	
✓ Mini hurdle runs	✓ Ladder runs with play	
✓ Time trials	✓ Mini-hurdle runs with play	
✓ Relays	✓ Tag games	
✓ Cool-down jogging	✓ Time trials	
	✓ Various relays	
	✓ Cool-down jogging	

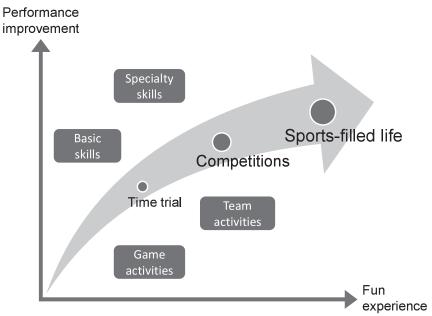


Figure 1. Concept mapping of the project

Increasing children's motivation levels by using time trials as short-term goals, and participation in the track meets as long-term goals, and moreover, contributing to a sports-filled life in the future. Helping children enjoy movement (through the activities,) and motivating them to continue by using "game activities." Helping children feel the joy of "mastering abilities," such as learning to perform complex movements or move faster. Helping children feel the joy of continuously "improving" their times. Allowing children to experience the fun of "competition" by incorporating competitive elements, such as relay races. Incorporating the element of game activities and allowing children to experience the fun of "team activities," even though track and field is considered to be an individual sport.

ladder runs (Figure 2). Ladder runs can be categorized into two types: jumping and skipping. Jumping training includes vertical jumps, slalom jumps, twist jumps, and snake jumps. Skipping training includes one step, two steps, side steps, and quick shuffles. We have conducted each of these training activities on a regular basis. We have also conducted mini hurdle runs as part of the specialty skills training, in order to improve the children's running stride (Figure 3).

3. Fun experience

1) Game activities

As game elements, we have been playing games like tag, rock-paper-scissors, ladders, and long rope passing runs. These games incorporate

running movements along with competitive elements, which allow children to run repeatedly and have fun without becoming bored. As a result, these games are very popular among the children.

2) Team activities

We have been conducting races, such as relays, especially during winter. We set certain conditions, such as running on a curve or running obliquely, to ensure the children experience a variety of movements. For relay races, the course is set so that the button can be passed from behind and the next runner has a run-up zone, even at the turn-around points. As the races are held in the gymnasium, we promote safety by controlling the



Figure 2. Ladder run



Figure 3. Mini hurdle run

speed of the zigzag courses and hurdle jumps, in addition to the straight-line courses.

4. Competitions

1) Time trials

During every session, we have conducted time trials. By using "FASTRun (YY-Factory)," the children are able to immediately confirm and grasp the times on their own (Figures 4 and 5), which helps to motivate them. A paired t-test was used to compare the difference between their times on the outdoor 50-meter sprint, measured in April and June. A significant difference (p = 0.03) was observed between these periods (Table 3). This result confirms the achievements of this project.

2) Participation in competitions

To enhance children's motivation, we

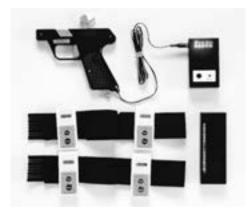


Figure 4. "FASTRun" by YY-Factory (Japan Pat pend. 2011-143527)



Figure 5. Activities while using "FASTRun"

encourage them to participate in the "Nissin Cup Trial in Niigata" and the "Boys and Girls Olympics in Nagaoka." The numbers of participants and the number of past winners are shown in Table 1. Since the 2014 academic year, the children have been able to participate in the "NUHW Trial Meeting," with cooperation from the university's track and field club. Hence, there are three or four track meets or recording events in which the children can participate.

Publicity

We accept online applications and promote our activities on the website, such as schedule postings, notification of track meets, and results from athletic lessons (Figure 6). The website has also been used to announce and register

Subject	Age	Sex	Pre	Post	Difference	
A	11	F	8.91	8.72	-0.19	
В	11	F	9.03	8.75	-0.28	
C	11	F	9.13	8.69	-0.44	
D	11	F	9.41	9.22	-0.19	
E	10	F	8.97	8.59	-0.38	
F	10	M	9.59	9.09	-0.50	
G	8	M	9.72	10.09	0.37	
Н	7	M	11.53	11.43	-0.10	
Mean	_	_	9.54	9.32	D = 0.02	
SD	_		0.86	0.98	P = 0.03	

Table 3 shows data collected from the children who participated in 50-meter sprints in both April and June. The "Pre" sprint was held at the best possible time in April. The "Post" sprint was held at the best possible time in June. SD: Standard Deviation.



Figure 6. Screen capture of a website page (www. nuhwsc.com)

participants for other sports lessons offered by this university.

In addition to providing information on the website, we report the results of the time trials to the parents on a regular basis (Figure 7). This way, the children are able to see the shift in their records. This also allows the parents to share in their achievements.

The athletic lesson activities were featured in a newspaper article as a unique contribution to the local community (Figure 8). Through this



Figure 7. Report from an individual time trial

newspaper article, we received many inquiries from areas outside the vicinity of Kita-ku. Moreover, this publicity has led to the enrollment



Figure 8. Newspaper "The Niigata Nippo" morning edition from March 5, 2014



Figure 9. Newspaper "The Niigata Nippo" morning edition from September 4, 2014

of children who live further away. Based on this project's achievements, we also traveled to Sado City to host an athletic lesson for elementary school children (Figure 9).

Future prospects

During the project's four-year implementation period, we have successfully established a concept and conducted the project in line with this concept. We have improved the instructional programs, while allowing children to participate in track meets and win. For further advancement, the immediate issue would be to increase the number of track meet participants and winners.

This project has great potential, as it can be also used as a practical field for the Track and Field Instruction or for student volunteer activities in the elementary school teaching course. We believe that the university's faculty members and students will be able to connect with many more regional children through this project.

Acknowledgements

We are grateful to the YY-Factory for providing technical support for FASTRun. We also wish to thank The Niigata Nippo for permission to reprint their article.

This project was supported by a Grant-in-Aid from the President of Niigata University of Health and Welfare, 2012, 2014 (Grant Number H24G02, H26E09).

Author Contributions

Conceived and designed the project: KS TY AM. Performed the project: KS NS TY AM. Analyzed the data: KS KT. Wrote the paper: KS NS AM.