

Parkour Training For Youth



Jason Langley Ph.D.; Renee Frimming Ed.D., MCHES; Hannah Hosterman
University of Southern Indiana, Evansville, IN

ABSTRACT

The goal of this project is to reduce childhood obesity in elementary school students through increased physical fitness. The objective is to improve elementary students' understanding of fitness through Parkour Training, which was assessed by administering health and skill-related fitness tests and a cognitive survey of health. Agility and power measurements were also conducted. Twice a week for 45 min, kids participated in Parkour Training. The training activities focused on developing multiple dimensions of fitness and wellness. Thirty-four (n=34) 3rd, 4th, and 5th graders (experimental) complete obstacles using agility ladders, balance beams, hurdles, plyo boxes, Bosu balls, stability balls, medicine balls, and kettle bells. Twelve (n=12) 3rd, 4th, and 5th graders (control) completed a more traditional physical activity and nutritional education program twice a week for 12 weeks. Both experimental and control groups were pre-tested using a battery of tests. Post-test data were collected during the 12th week of the training program. Data were analyzed from the results of the pre- and post- tests from students with both measurements. Due to high drop out rates statistical comparisons were not appropriate between groups or between testing sessions.

INTRODUCTION: What is Parkour training for Youth?
Form of exercise that involves free body movement in the form of obstacle courses. Our interest was in evaluating an after-school program that emphasized the principles of Parkour.

METHODS- Subjects-
Experimental group (n=34); Control Group (n=12)
Age group- 3rd, 4th, and 5th graders.
Program Design- Met twice a week for 12 weeks. Tuesdays and Thursdays after school for 45 minutes. Obstacle courses used for explosive movement drills, acceleration and deceleration drills, and reaction time drills. Students were broken into groups of 5-8 and rotated groups every 10-15 minutes. Each group worked on a different aspect of physical performance. Students were trained in elementary school gym or hallways of the school. Space was very limited in the hallways.

RESULTS- Means and Standard Deviations are presented in Table 1.

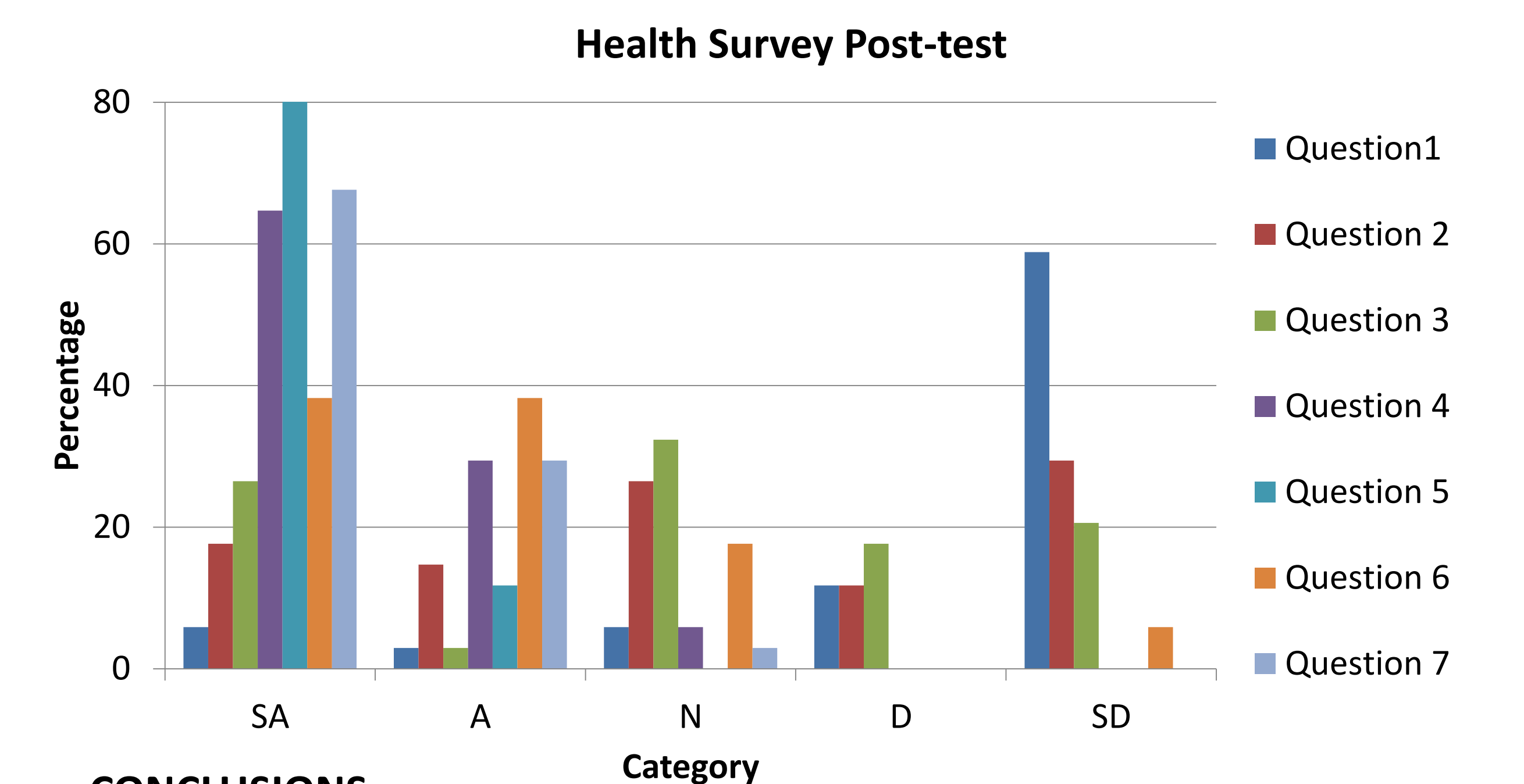
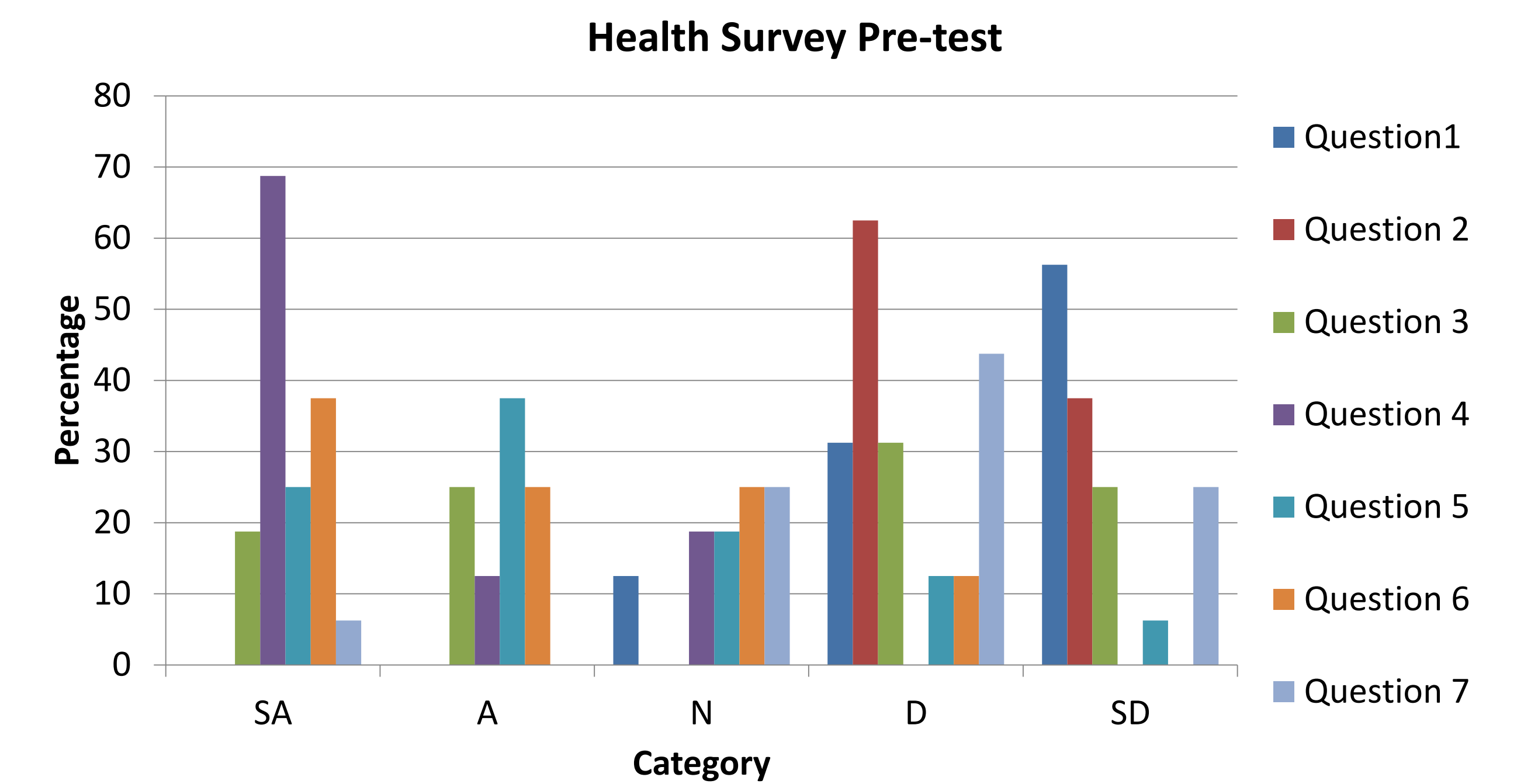


Table 1. Pre and Post Test Data Results

Variables	Pre-Test (mean ± S.D.)	Post-Test (mean ± S.D.)
Height (cm) (n=19)	141.84 ± 9.84	142.84 ± 10.26
Weight (kg) (n=19)	36.7 ± 10.24	37.00 ± 10.48
Agility Course (secs) (n=17)	29.15 ± 5.7	37.38 ± 3.14
Curl-Up (n=13)	23.23 ± 14.13	34.62 ± 17.72
Push-Up (n=19)	10.22 ± 5.4	16.83 ± 5.82
Vertical Jump (cm) (n=19)	26.34 ± 5.23	28.68 ± 4.80
30-yard dash (secs) (n=21)	5.9 ± 0.58	6.3 ± 0.67

*Post-test data for the control group was not available due high student dropout.

Health Surveys-
Question 1) Are you worried about getting sunburns?
Question 2) Eating a diet high in fruits and vegetables increases the risk of getting Heart Disease?
Question 3) Are you worried about getting Heart Disease?
Question 4) I know how to properly run, bike, and swim
Question 5) The best beverage to drink after running is water?
Question 6) People who are overweight have more health problems than other people who are not overweight?
Question 7) Being flexible can help me to move my body more easily?



CONCLUSIONS:

- Small physiological changes during a 12-week Parkour training program
- Attitudes toward hydration changed
- Attitudes toward the role body fat plays in future health problems changed
- Attitudes toward the role flexibility plays in body movement
- Positive feedback regarding type and level of challenge of the activities from both students and parents indicate Parkour training for youth is an appropriate method for elementary aged students

UNEXPECTED OUTCOMES:

- The kids seemed to enjoy jump rope drills. Jumping alone and as well as a group.
- Using the rope as hurdles set at different heights to jump over or crawl under.

LIMITATIONS AND FUTURE DIRECTIONS:

- Meet more than just twice a week and more than 45 minutes.
- Have a designated area to train the kids.
- Storage place for equipment
- More equipment
- More volunteers to help with the training program or limit the number of participants
- Name tags for the kids
- Transportation provided for the students to meet at the university for swimming and rockwall climbing