

# GROUPING AND NUMERIC CONVERSION AS WAY TO BOOST PERFORMANCE

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The purpose of this study was to suggest that the way to boost physical education performance in elementary school by “grouping” and “numeric conversion” on physical education. In this study, 40m-hurdles and running long jump were selected as educational materials. 15 elementary school students were divided into 3 groups. Baselines were determined for each individual. Students practice in a group, with the measurement records being carried out in the P.E. class and compared against those for other groups. This way shows their goal and growth as relative numerical values. By keeping score collaboratively, students acquired new perspective when observing others. In addition, they took know-how or facture of movement into their hearts.

**KEY WORDS:** athletics, scoring, elementary school, physical education

## INTRODUCTION:

The purpose of this study was to suggest that the way to boost physical education performance in elementary school by “grouping” and “numeric conversion” on physical education. “Grouping” means that students practice individual sports in a group. “Numeric conversion” means students assess their performance or as numerical value. In sum, some groups play at scoring total individual points. By using this way, students may be able to enjoy competing against other groups.

## METHOD:

In this study, 40m-hurdles and running long jump were selected as educational materials. Baselines of point counted are listed below. 40m-H: With considering the individual records of 40m-dash to determine a baseline of point (Table 1). Running long jump: considering the individual records of standing long jump and 50m-dash, baseline of point was made (Table 2).

**target of running long jump (m) =**

$$\text{(Standing long jump (m) + 80) + (13 - 50m-dash (s))} \times 15$$

Based on individual records of running long jump, 15 elementary school students were divided into 3 even groups in ability. Students practice in a group, the measurement of records was carried out at P.E. class. Records were published on a notice board in the classroom to engage their interest in his own or others records.

**Table 1 Baseline of point on 40m-hurdle**

difference of time in 40mH & 40m dash	score
below 0.6 sec.	10
0.6-1.0 sec.	7
1.0-1.5 sec.	5
1.5-2.0 sec.	3
2.0-3.0 sec.	2
3.0 sec. and avobe	1

**Table 2 Baseline of point on running long jump**

difference of distance in target & their own performance	score
110~	10
91~110	9
71~90	8
51~70	7
31~50	6
11~30	5
-9~10	4
-49~-10	3
-79~-50	2
~-80	1

**RESULTS AND DISCUSSIONS:**

Individual records of 40mH and running long jump on a certain day are shown in Table3 and Table4. By keeping score collaboratively, students acquired new perspective from which to observe others. This way shows their goals and growth as relative numerical values. Students cheered up, gave advice with respect to one another and congratulated attainment of each member achievements during the class. These all added more incentive. In addition, they took know-how or factures of movement more into their hearts. This leads to studying themselves. However, some issues remained. A long time was required to check on baseline sheet, reducing the time for exercise. Also, extra space was required to study in some groups. This made it more difficult for the teacher to focus on each individual child. Teachers need to instruct essential point of educational materials firmly in the early stages of each unit.

**Table 3 Individual records of 40mH on a certain day**

student	time (sec)		difference (sec)	score
	40m-dush	40m-hurdle		
1	7.1	7.2	0.1	10
2	7.6	8.2	0.6	7
3	8.8	9.3	0.5	10
4	6.8	7.0	0.2	10
5	7.6	7.8	0.2	10
6	7.5	7.9	0.4	10
7	9.1	9.6	0.5	10
8	6.7	7.2	0.5	10
9	6.8	7.4	0.6	7
10	9.4	8.9	-0.5	10
11	7.1	7.5	0.4	10
12	8.5	8.8	0.3	10
13	7.7	8.2	0.5	10
14	7.6	8.2	0.6	7
15	7.1	7.4	0.3	10

**Table 4 Individual records of 40mH and running long jump on a certain day**

student	A·standing long jump (cm)	B· A+80	C·50m-dush (sec)	D· (13-C)x 15	target of running long jump (B+D) (cm)	Running long jump (cm)	score
1	183	263	8.6	66.0	329	330	4
2	155	235	9.5	52.5	288	263	3
3	140	220	10.8	33.0	253	250	4
4	189	269	7.9	76.5	346	346	4
5	143	223	9.0	60.0	283	290	4
6	149	229	8.8	63.0	292	290	4
7	122	202	11.3	25.5	228	230	4
8	172	252	8.1	73.5	326	334	4
9	191	271	8.3	70.5	342	335	4
10	135	215	9.6	51.0	266	207	2
11	184	264	9.1	58.5	323	354	5
12	129	209	10.0	45.0	254	250	4
13	141	221	9.1	58.5	280	254	3
14	136	216	9.2	57.0	273	240	3
15	155	235	8.3	70.5	306	330	5

**CONCLUSION:**

The purpose of this study was to suggest that the way to boost physical education performance in elementary school by “grouping” and “numeric conversion” on physical education. Merit of this way was to make it simple to get to know about individual or collective growth. Moreover, by using this way, students acquired new perspective when observing others, enjoyed and congratulated their friends on their achievements.



Photo 1. 2 landscape in the P. E. class

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