



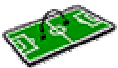
## Purpose of this study

The purpose of this study was to measure the girls performances in several different categories such as: number of total passes, completed passes, lost passes, completion rate, goals, shot on goals; and then compare their performance on a large field with 8 a side (w/ goalies) verses a small field with 4 a side (no goalies). This was done in hopes of illustrating the benefits of small-sided play (4v4) at this age group in terms of skill development, but more importantly the positive impacts that spill over to the players themselves – mainly, the pure enjoyment of the game of soccer itself. While we would have liked to track the # of individual touches on the ball by each player – our tracking capabilities for the purposes of this initial pilot study does illustrate the # of times throughout a match the player did come in contact with the ball.



## Background Information on the Pilot Study

- The Study took place at Pierce College on August 26, 2001.
- Teams involved: Girls under 8, from the West Valley Soccer Club
- Time: 9:00am to 11:30am
- Temperature: 80-90
- Field Size:
  - 8x8 = 80 x 50 yards
  - 4x4= 35 x 25 yards
- Number of players = 16 players
- The Girls were divided into two teams:
  - Red Team (8 players)
  - Blue Team (8 players)
- Each team was divided into equal strength
- The following personnel supported the project:
- The study was initiated by John Weinerth, CYSA -South Director of Recreation
- West Valley Soccer Club personnel included:
  - Howard Fink Team Coach/ President, Esse - Referee,
  - Juan Flores, Director of Coaching.
- SoftSport™ Personnel included: Shiela Friedman, Shadia, Brian Murray and Zvi Friedman



## 8 x 8 Study

- The 16 players were divided into two balanced teams of 8 red players and 8 blue players
- The Red Team played the Blue Team 10min x 2 (total-20 minutes)
- The field size was 80 x 50 yards
- Goal size was 7 feet high and 21 feet wide
- No coaching from the sidelines was allowed
- After each goal, restart was taken in the center circle.
- Players were assigned positions by the coach (goalkeeper, defenders, mid-fielders and forwards)



## **4x4 Study**

- The 8 Red Team players were divided into 4 Red "A" players and 4 Red "B" players.
- The 8 Blue Team players were divided into 4 Blue "A" players and 4 Blue "B" team players.
- Red "A" team played the Blue team "A" (10 minutes x 2) for a total of 20 minutes
- Red "B" team played Blue team "B" (10 minutes x 2) for a total of 20 minutes
- The Field Size was 35x25 yards
- Goal size was 6 feet wide by 4 feet high
- No coaching from the side-lines were allowed
- 3 Balls were available immediately at the touchlines in order to continue the game
- Players were encouraged to restart immediately.
- Restarts were allowed by kick-ins.
- Referee role was to supervise the health of the players and encourage the players to keep playing.
- After each goal the defending team restarted the game at their own goal (in order to have more playing time)



## **Survey**

**At the end of the game, each girl was asked 3 questions**

1. What is your favorite part about playing soccer (i.e. kicking the ball, scoring a goal, running)?
2. Which game allowed you to touch the ball more 4 x 4 or 8 x 8?
3. Which game did you have more fun playing (on the small field or the bigger field)?



## **Computer Analysis**

- SoftSport™ SecondLook™ software was used to collect data and information in several categories of players performance such as:



## Findings and Analysis:

The table below shows the summary results and performance of the teams

### Ground Rules

- **Red** and **Blue** teams played - 8x8 aside game
- **Red "A"** and **Blue "A"** played - 4x4 aside game
- **Red "B"** and **Blue "B"** played - 4x4 aside game
- **Red "C"** (data) = **Red "A"** + **Red "B"** (data)
- **Blue "C"** (data) = **Blue "A"** + **Blue "B"**(data)

### Team results by Categories

No	Game Size	Teams	G	SH	CP	LP	TP	CR%	Remarks
1	8x8	Red + Blue	6	10	45	84	128	35%	31%min;38%max
2	4x4	Red "C" + Blue "C"	24	40	136	304	440	31%	27%min;35%max
3	4x4/8x8	R(C) + B(C) /R+B	3.9	4	3	3.6	3.4	0.9	
4	8x8	Red + Blue/16	0.4	0.6	2.8	5.3	8.1		
5	4x4	Red "C" + Blue "C"/16	1.5	2.5	8.5	19	28		

### The table below shows the total number of passes range

- Total passes by the 16 team players were divided into 5 pass ranges.
- Each player were assigned into a range based on her total passes
- The data below shows that **10** out 16 players (**80%**) had a range of 8-18 total passes in the 8x8 game.
- **14** out of 16 players had a range of 19-46 total passes (**88%**) on the 4x4 game

Game	No. of players in each range	Total Player Range					Remarks
		2-6	8-11	12-18	19-31	32-46	
8x8	No. of players in each range	6	7	3			
4x4	No. of players in each range		1	1	10	4	



## Summary and Observations

1. In the 4x4 game on a smaller field, most of the players (88%) touched the ball 3-4 times more in several different categories such as: goals, shots on goal, completed and lost passes and total passes while still maintaining similar completion ratio of 31 vs 35%
2. When **no positions were given** to the players (the player's were free to move around the field). The results were that they touched the ball 3-4 times more.
3. In the 8x8 game, two or three players dominated the game in passes and dribbles.
4. The observation of the game by several people was that the 4x4 game flowed with little breaks compared to the 8x8 game which had many breaks due to restarts from goals, shots on goals, throw-ins and dribbles by 2-3 dominating players.
5. Based on the oral survey, 88% of the players answered the oral survey questions #2 and #3 (Which game did you have more fun playing (on the small field or the bigger field)? & Which game allowed you to touch the ball more 8v8 or 4v4?) in favor of the 4v4 small-sided game.
6. The individual Player Performance Analysis clearly illustrates a much more active involved player in the 4v4 game in comparison with that same player that seemed hidden and uninvolved in the 8v8 game.
7. It looks like that the time we allocated for the game a total of 40 minutes was sufficient. The girls were not too tired after the game (even it was 85-90 degrees heat).



## Recommendations for future studies

1. Continue the study to collect additional games and data on different ages and gender such as:

U-6, U-10 girls

U-6, U-8, U-10 boy

# of individual touches on the ball.

**Note:** Additional data is needed in to support a good statistical study.

2. Expand the study to club level games.

U-12 through U-18 boys and girls