### IV. Experimental Design

### 1. Purpose

The purpose of this experiment is to see if the use of hypnosis will improve a baseball player's on-base percentage. (OBP)

### 2. <u>Problem</u>

Will a baseball player's on-base percentage (OBP) improve, stay the same or decrease with the use of hypnosis?

### 3. Research

This experiment is to determine if hypnosis will improve a baseball player's on-base percentage (OBP). Hypnosis has been used for many years and in many ways to help people. With hypnosis, a patient can maximize the healing process after surgery. A smoker can be hypnotized to quit smoking. Hypnosis can also be used to help a student improve their grades. Olympians and professional athletes use hypnosis to gain a mental edge on their opponents. As you can see hypnosis is used in many ways.

Hypnosis is a relaxed state of consciousness. The brain is operating at a slower pace and thinking about fewer things. So, when the brain is in a relaxed state, a hypnotist's suggestions and

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visualizations given to the subject become 25 times more effective. Hypnotism communicates directly to the subconscious mind, helping to remove negative thoughts which interfere with a player's skills and replace negative thoughts with positive helpful thoughts.

There are two parts of the mind; the conscious and the subconscious. The conscious is where logic, reasoning, analysis and decision making is stored. The subconscious consists of long term memory, habits, learned responses, and self preservation. We don't think about scratching an itch. This is an example of the subconscious at work. If negative thoughts enter into the conscious mind during practice or play, they can settle into the subconscious mind and become a bad habit resulting in a reduced level of performance.

When an athlete performs, negative thoughts and bad habits can affect concentration and focus, causing hesitation in athletes thought process and reaction. This hesitation can result in a poor performance in the form of missed opportunities, technical errors and fear of failure. Hypnotism accesses the subconscious mind, allowing the athlete to perform without any conscious thought required. It all happens automatically.

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Knowing the mind controls the body and with the knowledge of hypnosis, we can improve our life and performance in many ways. This may include a patient trying to maximize the healing process after surgery, a student trying to improve their grades, or a baseball player trying to improve their on-base percentage. Today, it is becoming more known that hypnosis is used to help people use their minds to make lasting changes in both their performance and lives.

## 4. Hypothesis

I believe that with the use of hypnosis, a baseball player's on-base percentage (OBP) will improve.

## 5. Subject

The subject being tested is a 12 year old baseball player.

## 6. Variables

- Subject batting without the use of hypnosis.
- Subject batting with the use of hypnosis.

## 7. Controls

- The same subject is being used in this experiment
- The same certified hypnotist is being used.
- The same number of at bats is being used.
- The same baseball bat is being used.

## 8. Materials

- 1. Subject Baseball Player
- 2. Baseball game setting
- 3. Bat
- 4. Helmet
- 5. Baseballs
- 6. Hypnotist
- 7. Pencil
- 8. Paper

## 9. Procedures

- Without the use of hypnosis, the subject participates in three baseball tournaments and the subject's at bats are recorded. (Totaling18 games/36 plate appearances)
- Each at bat is recorded accordingly if the batter reaches base and is safe or out, walks, gets hit by a pitch, hits a sacrifice fly or strikes out.
- From the data collected the on-base percentage is calculated.
- 4. The OBP is calculated by using the formula:

Where:

H= Hits

HBP= Times hit by a pitch

BB= Base on Balls (walks)

AB= At bats

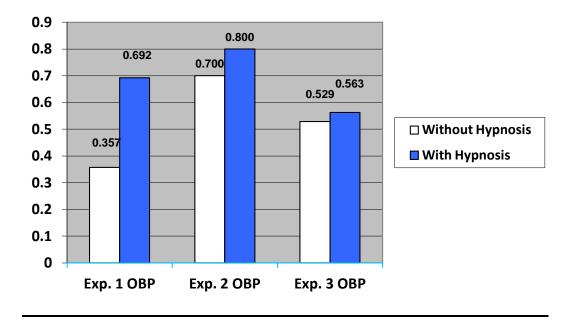
SF = Sacrifice flies

- 5. The OBP is rounded to the third decimal place. (ie. .123)
- Then, the subject is hypnotized by a certified hypnotist three separate times before each tournament and the subject's at bats are recorded. (Totaling 18 games/36 plate appearances)
- The subject also listens to a self-hypnosis cd "Improve your Baseball Skills" three times prior to each tournament.
- 8. Each at bat is recorded accordingly.
- 9. The on-base percentage is calculated.
- Then compare tournaments 1-3 without hypnosis to tournaments 1-3 with the use of hypnosis to see if the OBP increased, decreased or stayed the same.

 The OBP of all 18 games and 36 at bats without and with hypnosis is compared to see if the OBP increased, decreased or stayed the same.

## 10. <u>Data</u>

# On-Base Percentage Comparison without Hypnosis and with Hypnosis



## 10. <u>Data</u>

_								Experiment #1
	On Base	Percent	tage И	/ithou t	Hypno	sis		
	Date	AB	Н	HBP	BB	SF	OBP	
Game 1	19-Nov	2	0	0	1	0	0.334	(
Game 2	19-Nov	2	0	0	0	0	0.000	(
Game 3	20-Nov	2	1	0	1	0	0.667	(
Game 4	20-Nov	3	1	0	0	0	0.334	(
Game 5	20-Nov	3	1	0	0	0	0.334	(
	Total	12	3	0	2	0	0.357	
								Experiment #2

Tournament #2 On Base Percentage <i>Withou</i> t Hypnosis									
	Date	AB	н	НВР	BB	SF	OBP		
Game 6	17-Dec	2	2	0	0	0	1.000		
Game 7	17-Dec	3	2	0	0	0	0.667		
Game 8	18-Dec	3	3	0	0	0	1.000		
Game 9	18-Dec	1	0	0	0	0	0.000		
Game 10	18-Dec	1	0	0	0	0	0.000		
	Total	10	7	0	0	0	0.700		

## Tournament #1

On Base F	Percentage	With	Hypnosis	

	Date	AB	н	HBP	BB	SF	OBP
Game 1	3-Mar	2	2	0	0	0	1.000
Game 2	3-Mar	3	2	0	0	0	0.667
Game 3	4-Mar	3	3	0	0	0	1.000
Game 4	4-Mar	2	1	0	0	0	0.500
Game 5	4-Mar	2	0	0	1	0	0.334
	Total	12	8	0	1	0	0.692

	Tournament #2 On Base Percentage <i>With</i> Hypnosis									
	Date	AB	н	HBP	BB	SF	OBP			
Game 6	10-Mar	2	2	0	0	0	1.000			
Game 7	10-Mar	2	1	0	0	0	0.500			
Game 8	11-Mar	3	2	0	0	0	0.667			
Game 9	11-Mar	1	1	0	0	0	1.000			
Game 10	11-Mar	1	1	0	0	0	1.000			
Game 11	11-Mar	1	1	0	0	0	1.000			
	Total	10	8	0	0	0	0.800			

Tournament #3 On Base Percentage <i>Withou</i> t Hypnosis								
	Date	AB	н	НВР	BB	SF	OBP	
Game 11	27-Jan	0	0	0	2	0	1.000	
Game 12	28-Jan	1	0	0	1	0	0.500	
Game 13	28-Jan	2	1	0	0	0	0.500	
Game 14	28-Jan	2	0	0	0	0	0.000	
Game 15	29-Jan	3	2	0	0	0	0.667	
Game 16	29-Jan	2	1	0	0	0	0.500	
Game 17	29-Jan	2	2	0	0	0	1.000	
Game 18	29-Jan	2	0	0	0	0	0.000	
	Total	14	6	0	3	0	0.529	

Grand Totals Without Hypnosis						
	AB	н	HBP	BB	SF	OBP
Totals	36	16	0	5	0	0.512

Кеу	
AB	At bats
н	Hits
НВР	Times hit by pitch
BB	Base on balls (walks)
SF	Sacrifice Flies
ОРВ	On Base Percentage

#### Experiment #3

[	Tournament #3 On Base Percentage <i>With</i> Hypnosis							
	Date	AB	н	HBP	BB	SF	OBP	
Game 12	16-Mar	2	1	0	0	0	0.500	
Game 13	17-Mar	2	1	0	0	0	0.500	
Game 14	17-Mar	3	2	0	0	0	0.667	
Game 15	18-Mar	2	1	0	0	0	0.500	
Game 16	18-Mar	2	2	0	0	0	1.000	
Game 17	18-Mar	2	0	0	1	0	0.000	
Game 18	18-Mar	1	0	0	1	0	0.500	
	Total	14	7	0	2	0	0.563	

Grand Totals With Hypnosis						
	AB	н	HBP	BB	SF	OBP
Totals	36	23	0	3	0	0.667

Formula for On Base Percentage (OBP)						
OBP= <u>H+H</u>	IBP+BB					
AB+	HBP+BB+SF					

### 11. <u>Results</u>

From the data that was collected in experiment #1, the on-base percentage without hypnosis was 0.357 and the onbase percentage with hypnosis was 0.692.

From the data that was collected in experiment #2, the on-base percentage without hypnosis was 0.700 and the onbase percentage with hypnosis was 0.800.

From the data that was collected in experiment #3, the on-base percentage without hypnosis was 0.529 and the onbase percentage with hypnosis was 0.563.

Overall, after a total of 36 at bats, the OBP without hypnosis was 0.512 and the OPB with hypnosis was 0.563.

### 12. <u>Conclusion</u>

In conclusion from the data that was collected, hypnosis did prove to increase a Baseball player's on-base percentage (OBP). With the use of hypnosis the subject was more consistent overall in his batting and improved his OBP by 0.155.

### 13. <u>Applications</u>

This project relates too many of today's athletes. Weather they are professional or amateurs, these athletes use hypnosis to gain the mental edge on their opponents. In today's world hypnosis can be used in many ways. An athlete can improve his or her performance. A patient can maximize the healing process and control the pain after surgery. A smoker can be hypnotized to quit smoking. With this knowledge, hypnosis can improve our life and performance in many ways.

### 14. <u>Recommendations</u>

Recommendations for this experiment would be to see if hypnosis improves performance in other sports, improves school and test grades and even if it improves memory. Hypnosis is a valuable tool that many people are unaware of.

### V. <u>Acknowledgements</u>

I would like to thank my friend and hypnotist Laura King, C. Ht. for helping me understand hypnosis and improving my on- base percentage. Also, I would like to thank my mother and father for supporting me in this project.

### VI. <u>Bibliography</u>

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