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An Experimental Study of Platoon Hitting in Baseball

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CHAPTER I

FUNDAMENTAL BACKGROUNDS

Introduction

During the first hundred years after the advent of baseball the term "platoon hitting" was unknown. Managers and coaches played the same line-ups regardless of whether the opposing pitcher was right or left-handed, and there are still many who practice this philosophy.

Platoon hitting occurs when left-handed hitters are used in a game against right-handed pitchers, or when right-handed hitters are used against left-handed pitchers. The shifting of batters in the line-up first came into popularity after World War II. Managers were able to substitute more freely because of an over abundance of players following the war. It was thought by some major league managers and players that right-handed hitters did their best against left-handed pitchers, and that left-handed hitters were better against right-handed pitchers. Hy Turkin, a famous sportswriter, said that:

> Right-handed pitchers are supposed to have the advantage over right-handed hitters, and southpaws over left-handed batters. But is this statement cold science or balmy superstition? Always there are those who have different opinions. Baseball men and fans alike never can seem to agree on this question. [1]

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[1] Hy Turkin, "Left vs. Right-Science or Superstition?" The Sporting News, 125:3, July 7, 1948.

Many hitters were also bothered by curve balls breaking away from them, and as a result were unable to keep their correct stance in the batters box. Realizing that higher batting averages might be obtained by platooning, managers and coaches began trying the new hitting technique. Casey Stengel, manager of the New York Yankees, was very successful in platooning his hitters during the 1949 season. Bob Feller, the former great right-handed pitcher for the Cleveland Indians, gave his opinion in the following words:

> As for all the managers who are playing percentage nowadays by shifting their right and left-handed players in various positions, according to whether the opposition uses left or right-handed pitching, I can only say that the great teams of the past used the same lineup regardless of the opposition. But I guess the power baseball of the Yankees' heyday is in less favor now than percentage baseball. If I were a manager, I guess I'd have to do the same switching, if I just didn't have the personnel. [2]

The following study has been conducted in an attempt to find out if there are batting advantages in platoon hitting. It is the hope of the writer that many coaches, players, and fans will be able to benefit from the study. For years the merits of line-up shifting by platooning have been argued by baseball men and fans alike. Some say to wait until a boy reaches high school before you start to platoon him, while others say any age is all right. The writer believes that certain psychological

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[2]Ibid, p. 3.

factors must also be considered for all age groups. Some coaches believe that platooning can have harmful effects on certain players, both psychological and physical. One psychological problem a player might have would be the loss of confidence in his hitting ability. If a batter has little trust in his hitting skill, his batting average will probably decline. Confidence is one of the most important qualities a batter can possess.

Some of the arguments used to support platoon hitting are listed. If platooned, some players might obtain higher batting averages. More games could possibly be won because of an increased batting potential by both individual players and teams. Baseball authorities Harvey Kuenn and James Smilgoff, gave the following support for platooning:

> Percentage and platoon baseball is based on actual batting statistics, which show that many left-handed batters have difficulty in hitting successfully against left-handed hurlers. That's why right-handed hitters are placed in the line-up against southpaw hurlers and left-handed batters against right-handers.[3]

Some coaches believe that platooning allowed more players to participate, and for boys of college age or younger added participation is very beneficial. Many reasons were given to support platoon hitting. The writer has tried to determine their validity.

There are probably some questions about platoon hitting that will

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[3]Harvey Kuenn and James Smilgoff, Big League Batting Secrets (Englewood Cliffs, New Jersey; Prentice-Hall, Inc., 1958), pp. 4-5.

not be answered because of certain limitations. The length of time involved in the study, the selection of players, and the number of statistics that were recorded are all limited to some extent.

Purpose

The purpose of the study was to determine if there were any batting advantages to platoon hitting in baseball. It was the hope of the writer that some of the questions concerning platooning would be answered in the study. One major area of disagreement between managers and coaches was the age that they should begin to platoon their hitters. Managers of professional teams found the age factor of little importance; however, coaches of college, high school, and little league teams were more concerned with the problem. Three different age groups were involved in the study because of the many questions and opinions on the age factor. One group consisted of little league players, the second group of varsity high school players, and the third group of major league players. There were twenty players in each group, ten left-handed batters and ten right-handed batters.

An attempt was also made to answer the question of whether or not statistics supported platoon hitting. Many managers and coaches felt that statistics were very misleading, but said some serious thought should be given to their significance in relationship to platoon hitting.

Various psychological implications and their impact on certain

players were also observed. Little league and high school players were asked personal questions about platoon hitting, and their answers were given careful consideration and thought. They were asked if platooning was good or bad, and how they reacted personally when they were platooned. Most boys playing little league baseball were unfamiliar with the meaning of platoon hitting; however, several high school players had some definite opinions on the subject. The opinions of the high school players can be found in Chapter IV, High School Data. Coaches of little league and high school players used in the study were also asked about any normal or unusual behavior reactions from platooned hitters.

Need for Research in Platoon Hitting

The writer and many of his coaching colleagues believed that there was a need for more research in the area of platoon hitting. Coaches and managers should be able to prove any opinions they might hold on platoon hitting. They should have some statistical or logical proof upon which to base their opinions. Managers who platooned their hitters without statistics to support their line-up changes, were not considering all the facts. Most managers and coaches have not been able to agree on the merits of platooning from its advent until the present day; however, many agreed that there was a need for more research in platoon hitting. A study on platooning should be valuable to all baseball managers, coaches, and players. Many managers platooned their hitters

almost automatically, while others believed that good hitters could hit against any pitcher. Ty Cobb, the player with the highest lifetime batting average in the history of major league baseball, became interested in the platooning of hitters after his retirement. Cobb said: "If a man pretends to be a major leaguer, he should stay in the lineup no matter who is pitching."[4] Cobb's opinion was as follows:

> There is too much master-minding by managers to no good purpose. Managers juggle the lineup daily in order to display their authority and mystify the fans. It looks to the stands as though they're thinking hard. But actually they're out-maneuvering themselves. Baseball isn't that complicated.[5]

If platoon hitting proved to be statistically valuable, many managers and coaches wanted to know at what ages platooned hitters would be most effective. The age factor was considered to make the study more complete. Managers of professional teams were not as concerned about the age factor because of an over abundance of talented players. The research was conducted to discover whether it was best to platoon hitters, or whether the same line-ups should be used in every game. It was hoped that the study would give something more than opinions and ideas on which to base strategy.

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[4]Will Connoly, "Platoon System Muffles Skill of Players - Cobb", The Sporting News, 127:19, February 9, 1949.

[5]Ibid.

Source of Data

The sources of data for the paper were taken from the personal experiences of the writer as a teacher and coach, other coaches, players, books, magazines, and newspaper articles written on baseball. All authors of reference material used in the study are listed alphabetically in the bibliography. The authors are well qualified to write about baseball, as they have either played, coached, or written about the sport for many years.

The records of little league players used in the study were gathered by the writer's personal observations, and from scorebooks kept by their teams. Records of high school players were gathered in the same way; however, daily box scores from the Rockford Morning Star and the Beloit Daily News newspapers were also used for additional information. Records of the daily performance of players in the major leagues were gathered from watching games on television, and from daily box scores published in the Sporting News, a weekly baseball publication. Any errors that may have been made in the box scores from the newspapers or the Sporting News were thought to be so insignificant that they could not impair the accuracy of the study.

Definition of Terms

The tables included in the study contained batting averages of the three different comparison groups used in the study. The word

"average" is really a misnomer, since a batting "average" is actually a percentage. It indicates the number of hits obtained by a player in a certain number of times at bat. The batting average of a player is computed by dividing the player's number of hits by the number of times he comes to bat.

The "mean" from each of the three groups involved in the study was also shown. The word "mean" represented an approximate or adjusted average.

All other formulas, diagrams, or figures were explained at the places where they appeared.

Limitations of the Study

There are certain limitations that should be brought to the attention of the reader. Some of the problem limitations are:

1. The research included averages for one season of play only.
2. Player selection was limited to the Rockford area only.
3. The major league players were all selected from the American League.
4. Any players eligible to compete in little league or high school could have been selected regardless of age differences. The required age for little leaguers was eight to twelve, while high school players may not be over eighteen. The Illinois High School Association Handbook states:

> He shall not have reached his nineteenth

birthday except that: c) If his nineteenth birthday occurs on or after April 11, he may retain his eligibility for the remainder of the the school year.[6]

5. The only batting statistics that were used were batting averages.

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[6]Official Handbook: Illinois High School Association. (Chicago, Illinois. 1966-67) p. 14. Article I, Section 9c.

CHAPTER II

DESIGN OF THE STUDY

Three different groups were used in the study for purposes of comparison. Each group was of a different age and ability level. The three groups consisted of little league, high school, and major league players. The batting averages of the players were compiled against both right and left-handed pitchers. Players who batted twenty times each against both right and left-handed pitchers were eligible for selection. The players in little league and high school also had to start in half of their teams' games. The reason for the starting requirement was that players of similar abilities were more apt to be chosen. All of the players in the little league and high school groups were picked from the Rockford area. The area included all of the little league and high school teams within a ten mile radius of Rockford.

The major league players were selected from one league, the American League. Two players were chosen from each of the ten league teams, one left-handed batter and one right-handed batter. The left and right-handed batters with the highest regular season averages for 1966 were the ones selected.

Half of the players in each of the three groups batted left-handed and the other half batted right-handed. Two separate batting averages

were compiled for each player, one against right-handed pitchers and the other against left-handed pitchers. Each batting average was based on twenty official times at bat. However, a scarcity of left-handed pitchers and the short high school season made it difficult to find ten right-handed hitters who had batted twenty times against left-handed pitching.

At this point, it should be noted the "switch hitters" (those who bat both right and left-handed) were not considered for use in the study.

Scorebooks and newspaper box scores were used to acquire all of the batting information needed on the little league and high school players. Box scores on the major league players were gathered from the 1966 issues of the Sporting News. The writer selected only games in which one pitcher was either right or left-handed. Mimeographed form sheets for recording the data on each player were then prepared. The form sheets were the same for all of the players in the three different groups. The following data was then recorded on each of the form sheets: name of the player; team on which he played; whether he was a right or left-handed batter; his total number of times at bat, hits, and his batting average.

Also listed were the games in which the player participated, and a record of his performance for each game under the following headings: date of the game; name of the opposing pitcher and whether

he was right or left-handed; and the player's times at bat, hits, and batting average. Batting averages for each player were then computed by totaling the appropriate columns, and dividing the player's number of hits by the number of times he came to bat. Three batting averages were displayed to indicate the success of the batters in obtaining hits off both right and left-handed pitchers.

Separate tables were then prepared for each of the three groups after all of the batting statistics were gathered and placed on the mimeographed sheets. Two separate batting averages were listed for each player; one average was against right-handed pitchers and the other average was against left-handed pitchers. The averages were then placed on the tables. The major league players were listed in alphabetical order.

There were two separate averages for each player in the different comparison groups, one for the ten right-handed batters and one for the ten left-handed batters. To make the data still more meaningful, the two separate averages for each hitter were totaled and divided by the total number of hitters in each group. The answer was the average or "mean" for each of the three different groups. After the averages for each group were found, it was possible to compare them with other averages in the different groups.

Various psychological implications and their impact on certain

little league and high school players were also observed and noted. On the back of the mimeographed form sheets for each player were listed the following questions: Do you believe platoon hitting is good or bad? How do you react when you are platooned? The significance of the different answers could not be statistically computed; however, the beliefs of the players could possibly affect their hitting abilities, if they were platooned.

CHAPTER III

LITTLE LEAGUE DATA

The little league players used in this research were selected from Rocton, Roscoe, and Rockford, Illinois. Rockton and Roscoe are small suburban communities located seven to nine miles respectively north of Rockford. These towns were chosen because the writer taught and coached in both of them while working on the study. The little league in Rockton consisted of six teams, while Roscoe's little league had seven teams. The city of Rockford had four leagues with six teams in each league.

A total of 103 subjects from sixteen different teams were screened before twenty players could be found who met the individual qualifications. Any ten right-handed hitters and ten left-handed hitters who batted twenty times each, against both right and left-handed pitchers, were eligible for selection. They also had to start in half of their teams' games. Thirty games were personally viewed by the writer in June and August during the 1966 season, for the purpose of gathering information. The information and statistics gathered at these games was placed on mimeographed form sheets to be compiled at a later date. Other batting statistics needed to complete the research were obtained from scorebooks kept by managers and coaches. Box scores in area newspapers

were not used in the collection of statistics for the chapter. There was enough information gathered from the writer's observations and the several different team scorebooks to compile the needed data.

Most of the managers could not afford the luxury of being able to platoon their hitters because of the limited number of players on each team. It states in the Official Little League Rules Book the established number of players for each team:

> The league shall, at least 10 days prior to the first regular game, establish the number of players on each team, but no team may have more than 15 players or less than 12. The manager of a team must, at least five days prior to the first regularly scheduled game, register his regular team roster.[7]

Only two managers from the sixteen different teams from which players were selected said that they would be in favor of platooning their hitters. The other managers, who opposed platoon hitting, believed that their players were too young to be platooned. They also stated that some of their players' hitting abilities might never be fully developed.

Each of the twenty players used in the collection of the data were asked what platooning was, if they believed that platooning was good or bad, and how they would react if they were platooned. Twelve of the twenty players were unaware of the meaning of platoon hitting. The other eight players knew what was meant by platoon hitting; however,

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[7] Official Rules 1967: Little League Baseball (Rules Committee, Williamsport, Pennsylvania, 1967), p. 3.

managers that not being able to bat regularly against left-handed pitchers might explain why the batting averages were usually lower against them; however, their doubts were only conjecture.

Left-handed batters did considerably better against opposite pitching than the right-handed batters. Their group average was 65 percentage points higher against right-handed pitchers. It should be noted that they also saw a limited number of left-handed pitchers. Only batter number 15, who was a poor average hitter, did better against left-handed pitching. All of the other left-handed batters did as well or better against right-handed pitching. The total batting average of the group was 65 percentage points higher against right-handed pitching than it was against left-handed pitching.

In conclusion, it was found that a coach or manager who platooned his hitters, had a better chance for success if he platooned his left-handed batters for right-handed batters when the opposing pitcher was right-handed. Left-handed batters could probably be left in a game regardless of whether they were facing left or right-handed pitching.

TABLE I

LITTLE LEAGUE BATTING AVERAGES
OF RIGHT-HANDED HITTERS OPPOSING
RIGHT-HANDED PITCHERS

Batter	At Bats	Hits	Batting Average
Batter No. 1	20	2	.100
Batter No. 2	20	2	.100
Batter No. 3	20	4	.200
Batter No. 4	20	5	.250
Batter No. 5	20	4	.200
Batter No. 6	20	10	.500
Batter No. 7	20	6	.300
Batter No. 8	20	7	.350
Batter No. 9	20	3	.150
Batter No. 10	20	5	.250
Group Totals	200	48	.240

TABLE IV

LITTLE LEAGUE BATTING AVERAGES
OF LEFT-HANDED HITTERS OPPOSING
LEFT-HANDED PITCHERS

Batter	At Bats	Hits	Batting Average
Batter No. 11	20	3	.150
Batter No. 12	20	7	.350
Batter No. 13	20	3	.150
Batter No. 14	20	5	.250
Batter No. 15	20	1	.050
Batter No. 16	20	6	.300
Batter No. 17	20	8	.400
Batter No. 18	20	6	.300
Batter No. 19	20	4	.200
Batter No. 20	20	6	.300
Group Totals	200	49	.245

CHAPTER IV

HIGH SCHOOL DATA

The high school players used in the chapter were selected from the same geographical area as the little league players listed in the previous chapter. Any high school player within a ten mile radius of Rockford was eligible for selection. It was impossible to find enough batters who had faced left-handed pitching twenty times because of the limited spring schedules and bad weather. Only fifteen players could be found who had batted against left-handed pitching the required number of times. Of these fifteen players, eight batted right-handed and seven batted left-handed. The remaining five players were selected from teams who played during the 1967 spring season. The ages of the different players were not taken into consideration when they were selected; however, as many upper classmen as possible were given preference. It was thought that the closer the players were in age, the more equal they might be in ability. It soon became apparent that it was impossible to use only upper classmen. There were not enough upper classmen to meet the qualifications.

A total of 129 boys from seventeen different high school teams were screened before twenty players could be found who met the proper qualifications. Each player also had to start in half of their teams' games.

Nineteen high school games were personally viewed by the writer during the 1967 spring season. The 1966 statistics were taken from the scorebooks of teams who had players selected from them for the study. The statistics were placed on mimeographed form sheets after all the necessary information was gathered. The same type of form sheet was used for both little league and high school. Any errors that may have appeared in the scorebooks were not considered important enough to have any major effect on the conclusions.

Like the little league managers, high school coaches were also handicapped by the lack of talented hitters. In Illinois high school baseball the size of the teams were not restricted as they were in the little league baseball; however, it was very difficult to find teams with enough good hitters for platooning purposes. All but two managers from the seventeen different teams thought that platoon hitting was a good idea. The other two managers said that they never had enough talented hitters to consider platoon hitting.

All of the twenty players used in the study were aware of the meaning of platoon hitting. There were eighteen of them who thought that platooning was more benefician than detrimental. They all said that they would not like to be platooned, but if it would help the team they would probably not complain. The writer felt that most of these players were in favor of platooning.

Individual names of players used in the chapter were not given. All of the players were represented by numbers when referred to in the batting tables. Of the twenty players selected for the high school group, all were chosen from teams within a ten mile radius of Rockford. Several other teams were checked for players, but none had players with statistics suitable for the study. All of the required batting statistics of the twenty players were placed on the mimeographed form sheets. The statistics were gathered through personal observations, newspaper box scores, or from data gathered from different team scorebooks.

The required information and statistics on each player was recopied on the groups batting tables when the mimeographed form sheets were completed. These tables were set up exactly as they were for the little league players. It was apparent to the writer that many of the statistics and averages were quite different, and undoubtedly had different meanings, than those of the little league players. The high school tables can be found on the next four pages.

TABLE V

HIGH SCHOOL BATTING AVERAGES
OF RIGHT-HANDED HITTERS OPPOSING
RIGHT-HANDED PITCHERS

Batter	At Bats	Hits	Batting Average
Batter No. 1	20	4	.200
Batter No. 2	20	9	.450
Batter No. 3	20	5	.250
Batter No. 4	20	5	.250
Batter No. 5	20	4	.200
Batter No. 6	20	7	.350
Batter No. 7	20	3	.150
Batter No. 8	20	8	.400
Batter No. 9	20	4	.200
Batter No. 10	20	6	.300
Group Totals	200	55	.275

TABLE VI

HIGH SCHOOL BATTING AVERAGES
OF RIGHT-HANDED HITTERS OPPOSING
LEFT-HANDED PITCHING

Batter	At Bats	Hits	Batting Average
Batter No. 1	20	2	.100
Batter No. 2	20	4	.200
Batter No. 3	20	3	.150
Batter No. 4	20	5	.250
Batter No. 5	20	6	.300
Batter No. 6	20	7	.350
Batter No. 7	20	4	.200
Batter No. 8	20	10	.500
Batter No. 9	20	5	.250
Batter No. 10	20	5	.250
Group Totals	200	51	.255

TABLE VII

HIGH SCHOOL BATTING AVERAGES
OF LEFT-HANDED HITTERS OPPOSING
RIGHT-HANDED PITCHERS

Batter	At Bats	Hits	Batting Average
Batter No. 11	20	7	.350
Batter No. 12	20	5	.250
Batter No. 13	20	6	.300
Batter No. 14	20	3	.150
Batter No. 15	20	8	.400
Batter No. 16	20	8	.400
Batter No. 17	20	5	.250
Batter No. 18	20	11	.550
Batter No. 19	20	7	.350
Batter No. 20	20	4	.200
Group Totals	200	64	.320

TABLE VIII

HIGH SCHOOL BATTING AVERAGES
OF LEFT-HANDED HITTERS OPPOSING
LEFT-HANDED PITCHERS

Batter	At Bats	Hits	Batting Average
Batter No. 11	20	6	.300
Batter No. 12	20	5	.250
Batter No. 13	20	4	.200
Batter No. 14	20	2	.100
Batter No. 15	20	5	.250
Batter No. 16	20	7	.350
Batter No. 17	20	5	.250
Batter No. 18	20	9	.450
Batter No. 19	20	8	.400
Batter No. 20	20	1	.050
Group Totals	200	52	.260

Certain game situations and final statistical results were similar for both high school and little league players. The theory that players are better hitters if they bat opposite from the way the ball is pitched, did not prove to be correct at all times.

The right-handed hitters in high school had a higher batting average against right-handed pitching than they did against left-handed pitching, this was also true with the little league players. The writer could find no proof why the batting averages of both groups were lower against left-handed pitchers. The total group average for the right-handed hitters was 20 percentage points higher against right-handed pitching than it was against left-handed pitching. Batters 1, 2, 3, and 10 had higher batting averages against right-handed pitchers, while batters 4 and 6 had identical averages against both types of pitching. The remaining right-handed batters hit well against both types of pitching; therefore, it was difficult to tell whether the type of pitching they faced made any difference at all. Batters in both groups saw a limited number of left-handed pitchers in comparison to the right-handed pitchers they faced.

The left-handed batters did considerably better against opposite pitching than the right-handed batters did. Their group batting average against right-handed pitching was 60 percentage points higher than it was against the left-handed pitching. Every left-handed batter but number 19 had a batting average as high or higher against right-handed pitching.

In conclusion, the writer found little evidence to support the platoon hitting theory in little league or high school play. The only fact that could be supported by statistical proof was that left-handed batters were more likely to be successful hitters than right-handed batters.

CHAPTER V

MAJOR LEAGUE DATA

It was found during the research that most major league managers used the platoon hitting system. Statistics and public pressure supported platoon hitting in the major leagues. New York sports writer Joseph Sheehan, stated:

> With allowance for special cases and situations, a manager is drummed out of the dugout lodge today for sending a right-handed pinch-hitter against a right-handed pitcher or a left-handed hitter against a left-handed pitcher.
>
> The taboo extends to the use of left-handed pitchers against line-ups loaded with right-handed hitters. Southpaws customarily are reserved for rivals where principal thumpers swing from the port side.[8]

It was also discovered that some managers were against the platoon hitting theory. Bob Billins, sports writer, describes the action of Philadelphia Phillies manager Gene Mauch as follows:

> For the first time in many years, the Phillies took the field every day with the same lineup. Mauch refrained from platooning even in critical pinch-hitting situations. The players were as surprised as the fans.[9]

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[8]Joseph Sheehan, "Why Right-Handed Batters Prefer to Oppose Southpaws," The New York Times, May 10, 1955, p. 34.

[9]Bob Billins, "No-Platoon Plan Works," Chicago Daily News, August 10, 1967, p. 16.

Letters were written to several major league teams and college baseball coaches on the subject of platoon hitting in baseball. The writer has placed some of their replies in the Appendix.

All of the statistics and averages in Chapter V were recorded in much the same way as they were in the previous chapters; however, there was one important change. In Chapters III and IV the individual names of players were omitted. The names of the players were used in Chapter V to make the statistics and averages more interesting. The writer tried and was unable to correspond with the players involved in the chapter. It was decided to use their names without their permission.

The major league players in the chapter were all selected from the American League because of the probability that many of them would face the same pitchers and defenses, thus making the batting averages more meaningful. Two players were chosen from each of the ten league teams, one left-handed batter and one right-handed batter. The left and right-handed batters with the highest regular season averages for the 1966 season were the ones chosen for the study. Their final batting averages were obtained from the Sporting News at the close of the 1966 baseball season.

After the twenty major league players had been selected, the writer began checking their batting records from the beginning of the

season. The first twenty at-bats were taken from the beginning of the season because each player had approximately the same amount of game experience for the year. All of the individual box scores on the players were gathered from 1966 issues of the Sporting News. The writer selected only games where one pitcher pitched the complete game or where all of the pitchers were either right or left-handed. The required information was placed on the players' individual mimeographed form sheets after each box score was checked. Form sheets were kept on each player until he had batted the required number of times against both right and left-handed pitching. As soon as the players had batted the required number of times against both kinds of pitching, their batting statistics were totaled and placed on the appropriate batting tables.

Except for the names of the batters and their teams, the batting tables were compiled in the same way as they were for the little league and high school players. These tables appear on the following four pages.

TABLE IX

AMERICAN LEAGUE BATTING AVERAGES
OF RIGHT-HANDED HITTERS OPPOSING
RIGHT-HANDED PITCHERS

Batter	At Bats	Hits	Batting Average
Agee, T. Chi.	20	5	.250
Alvis, M. Clev.	20	7	.350
Cardenal, J. Cal.	20	2	.100
Cater, D. K.C.	20	4	.200
Conigliaro, T. Bos.	20	4	.200
Howard, E. N.Y.	20	3	.150
Howard, F. Wash.	20	4	.200
Kaline, A. Det.	20	8	.400
Killabrew, H. Minn.	20	5	.250
Robinson, B. Balt.	20	9	.450
Group Totals	200	51	.255

TABLE X

AMERICAN LEAGUE BATTING AVERAGES
OF RIGHT-HANDED HITTERS OPPOSING
LEFT-HANDED PITCHERS

Batter	At Bats	Hits	Batting Average
Agee, T. Chi.	20	6	.300
Alvis, M. Clev.	20	8	.400
Cardenal, J. Cal.	20	4	.200
Cater, D. K.C.	20	5	.250
Conigliaro, T. Bos.	20	6	.300
Howard, E. N.Y.	20	3	.150
Howard, F. Wash.	20	5	.250
Kaline, A. Det.	20	9	.450
Killabrew, H. Minn.	20	6	.300
Robinson, B. Balt.	20	9	.450
Group Totals	200	61	.300

TABLE XI

AMERICAN LEAGUE BATTING AVERAGES
OF LEFT-HANDED HITTERS OPPOSING
RIGHT-HANDED PITCHERS

Batter	At Bats	Hits	Batting Average
Cash, N. Det.	20	9	.450
Gosger, J. K.C.	20	6	.300
King, J. Wash.	20	6	.300
Kirkpatrick, E. Cal.	20	5	.250
Oliva, T. Minn.	20	8	.400
Pepitone, J. N.Y.	20	6	.300
Powell, J. Balt.	20	5	.250
Robinson, F. Chi.	20	10	.500
Wagner, L. Clev.	20	6	.300
Yastrzemski, C. Bos.	20	6	.300
Group Totals	200	67	.335

TABLE XII

AMERICAN LEAGUE BATTING AVERAGES
OF LEFT-HANDED HITTERS OPPOSING
LEFT-HANDED PITCHERS

Batter	At Bats	Hits	Batting Average
Cash, N. Det.	20	5	.250
Gosger, J. K.C.	20	4	.200
King, J. Wash.	20	5	.250
Kirkpatrick, E. Cal.	20	3	.150
Oliva, T. Minn	20	6	.300
Pepitone, J. N.Y.	20	5	.250
Powell, J. Balt.	20	4	.200
Robinson, F. Chi.	20	6	.300
Wagner, L. Clev.	20	4	.200
Yastrzemski, C. Bos.	20	5	.250
Group Totals	200	47	.235

The major league players had the first group statistics considered which supported the platoon hitting theory. Most of the right and left-handed batters hit considerably better against opposite pitching. There were eight right-handed batters who had higher batting averages against left-handed pitching, while all ten of the left-handed batters had higher averages agsinst right-handed pitching. Elston Howard and Brooks Robinson were the only two right-handed batters who did not hit for a higher average against left-handed pitching.

As a group, the left-handed batters hit 100 percentage points higher against right-handed pitching than they did against left-handed pitching. The right-handed batters also hit for a higher group average against opposite pitching. Their group average was 45 percentage points higher. The total group average for the left-handed batters against both kinds of pitching was .285. The total group average for the right-handed batters against both kinds of pitching was.280.

It was impossible to say whether right or left-handed batters were better hitters when looking at the results of the statistics. It appeared from all of the collected data, that platooning of hitters was statistically a sound idea. If a manager had to keep some of his players in the line-up for any reason, he would probably have more success by keeping his right-handed batters in the game. Batting Tables IX and XII

show that right-handed hitters had higher batting averages against right-handed pitchers than did the left-handed hitters against left-handed pitchers.

CHAPTER VI

SUMMARY & CONCLUSIONS

Summary

The purpose of the study was to determine if there were any advantages to platoon hitting in baseball. Three different comparison groups were used in the study. Each group was of a different age and ability level. The three groups consisted of little league, high school, and major league players. The batting averages of the players were compiled against both right and left-handed pitchers. Players who batted twenty times each against both right and left-handed pitchers were eligible for selection. The players in little league and high school had to start in half of their teams' games. The major league players were selected from one league, the American League. Two players were chosen from each of the ten league teams, one left-handed batter and one right-handed batter.

Half of the players in each of the three groups batted right-handed and the other half batted left handed. Two separate batting averages were compiled for each player, one against right-handed pitchers and the other against left-handed pitchers. Each batting average was based on twenty official times at bat. Mimeographed form sheets were kept on each player until they had batted the required

number of times. Separate tables were then prepared for each of the three groups after all of the batting statistics were gathered. Two separate batting averages were listed for each player; one against right-handed pitching and the other against left-handed pitching. The averages indicated which type of pitching the batters were most successful against. To make the data still more meaningful, the two separate averages for each hitter were totaled and divided by the total number of hitters in each group. After the group averages were found, it was possible to compare them with other averages of the different groups. On page 47 there is a summary table showing the composite averages of the first twelve tables.

Conclusions

Various conclusions were drawn from the results of the study. They are as follows:

Little League

1. The results of the study indicated that most of the little league players in both groups were more successful in hitting against right-handed pitchers than they were against left-handed pitchers.
2. Sixty per cent of the little league players used in the study did not know what platoon hitting meant.
3. Left-handed batters had a higher group batting average against both right and left-handed pitching. Right-handed batters were

55 percentage points lower against right-handed pitchers and 15 percentage points lower against left-handed pitchers.

4. Players who were good batters hit effectively against both right and left-handed pitching.

High School

1. Most of the high school coaches believed that platoon hitting was a good idea.
2. All of the high school players selected for the study knew what platoon hitting meant.
3. The left-handed batters hit for a higher total group batting average against both right and left-handed pitching.
4. Both batters with high and low batting averages had greater success in obtaining hits off right-handed pitchers than off left-handed pitchers.
5. As individuals, 7 of the ten of the left-handed batters had a higher batting average against both right and left-handed pitchers.
6. Although many baseball coaches and observers agreed that a good batter would hit left-handed and right-handed pitchers equally well, the results of the study indicated that this was not true. Right-handed and left-handed batters with low batting averages were equally successful against both right and left-handed pitchers while batters with high batting averages were more successful in

obtaining hits off right-handed pitchers than off left-handed pitchers.

Major League

1. Platooning of hitters in the American League appeared mathmatically to be a sound idea.
2. All of the left-handed batters had a higher batting average against right-handed pitching while 8 of the ten right-handed batters hit better against left-handed pitching.
3. The total group average of the left-handed batters was 100 percentage points higher against right-handed pitching than it was against left-handed pitching. The right-handed batters also hit considerably better against opposite pitching; their total group average was 45 percentage points higher.
4. The total group average of the left-handed batters against both right and left-handed pitching was .285. The right-handed batters hit .280 against both kinds of pitching.

TABLE XIII

SUMMARY OF GROUP TOTALS

LITTLE LEAGUE	At Bats	Hits	Batting Averages
TABLE I	200	48	.240
TABLE II	200	46	.230
TABLE III	200	59	.295
TABLE IV	200	49	.245
HIGH SCHOOL	At Bats	Hits	Batting Averages
TABLE V	200	55	.275
TABLE VI	200	51	.255
TABLE VII	200	64	.320
TABLE VIII	200	52	.260
AMERICAN LEAGUE	At Bats	Hits	Batting Averages
TABLE IX	200	51	.255
TABLE X	200	61	.300
TABLE XI	200	67	.335
TABLE XII	200	47	.235

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APPENDIX

October 17, 1966

Mr. Otto Vogel, Baseball Coach

University of Iowa

Iowa City, Iowa 10011

Mr. Vogel:

During most of the school year I am enrolled as a graduate student at Eastern Illinois University. Recently I was assigned a research paper on platoon hitting in baseball. It is my job to find out the advantages or disadvantages in platoon hitting.

I have played and coached baseball for several years in high school, college, and semi-pro. At present I am teaching and coaching in Roscoe, Illinois. For years I have heard of the many advantages to platoon hitting, however I have seen very few statistics or records on the subject. Some of the books I have read suggest that platooning is purely psychological, while others say that platooned hitters have a definite physical advantage.

Before I start writing my paper, I was hoping to find out if any other individuals, schools, or teams had made a similar study. If you or your school have research data on platoon hitting, I would appreciate any information you can send me.

Respectfully yours,

Ralph Robovsky, Jr.

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September 30, 1966

Mr. Ralph Robovsky, Jr.
Atwood Road
Roscoe, Illinois 61073

Dear Mr. Robovsky:

Your letter of September 27th, to Mr. John H. Johnson has been handed to me for reply.

During the past season and previous seasons we have completed surveys on platoon hitting. I am listing below for your information a sample of this survey.

Players in question.

A - Lefthanded hitter: hit .300 against righthanded pitching
hit .234 against lefthanded pitching
hit .265 against both type of pitching

B - Left handed hitter: hit .351 against left handed pitching
hit .307 against righthanded pitching
hit .311 against both types of pitching

C - Switch Hitter : hit .250 lefthanded against righthanded pitching
hit .274 righthanded against lefthanded pitching.
hit .266 against both type of pitching.

This give us a basic idea as to which type of pitching each player does well against. We find in some cases as in the player "B" case that he hit well against lefthanded pitching, being left handed and a little below against the opposite pitching, but overall his average was .311 against both types. This showed us this player could play against both left and right handed pitching.

I am enclosing herewith for your information some literature which might help you in your research work.

Sincerely,

George E. Prister
Secretary Minor League Operations.

Enc:

Kansas City Athletics

HUMBOLDT 3-9911

MUNICIPAL STADIUM, KANSAS CITY, MISSOURI 64127

September 29, 1966

Mr. Ralph Robovsky, Jr.
Atwood Road
Roscoe, Illinois 61073

Dear Ralph:

Thank you for your letter of September 24, 1966 addressed to Mr. Ed Lopat.

Mr. Lopat has given me your letter for a reply but I am afraid that I am not going to be able to help you with your request to secure more information on platooning in baseball.

Our records have not been broken down into these categories but it is my opinion that there is distinct physical advantage in platooning certain ball players.

Having worked for the Cubs the past seven years, I do know that they keep records such as you are requesting and if you haven't already done so, it would be my suggestion you write Mr. Rip Collins in their office and I am quite sure he will have the statistics to prove that there is an advantage.

Thanks again for writing and for your interest in the game of baseball.

With all best wishes, I am

Sincerely,

Don Biebel
Public Relations Director

THE OHIO STATE UNIVERSITY
AREA OF STUDENT RELATIONS
INTERCOLLEGIATE ATHLETICS
ST. JOHN ARENA
410 WEST WOODRUFF
COLUMBUS, OHIO 43210

Office of Director

November 25, 1966

Mr. Ralph Robovsky, Jr.
Kinnikinnick Community
Consolidated School
Roscoe, Illinois

Dear Ralph:

I received your letter of November 8 regarding platoon hitting but do not know of anyone in this area who has experimented with it.

Personally, I feel that it is over-emphasized because if a left-handed hitter can continually hit against a left-handed pitcher he can probably hit just as well against a right-handed pitcher.

I remember when Walter Alston, of the Dodgers, was platooning left-handed Wally Moon. When Wally didn't get to play more he complained to Mr. Alston whose reply was, "We're platooning you". To that Wally answered, "You're doing it in the wrong way because I'm hitting .400 against left-handed pitchers and .200 against right-handed pitchers."

Sorry I can't help you more, but hope that you can write a good paper.

Sincerely yours,

Marty Karow
Head Baseball Coach

MK:ce

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721

DEPARTMENT OF HEALTH,
PHYSICAL EDUCATION AND RECREATION

OFFICE OF THE BASEBALL COACH

October 25, 1966

Mr. Ralph Robovsky, Jr.
Kinnikinnick Community Consolidated School
Roscoe, Illinois 61073

Dear Ralph:

Received your letter this morning but I am sorry to say that I will not be able to help you on the platooning problem. Personally I believe it is overemphasized. Naturally if you had a group of exceptional hitters right handed and some left handed it would be slightly better for the right handers to hit against left handed pitching and the left handers hitting against right handed pitching.

I notice the good hitters in pro ball don't care what side they are throwing from. In college and High School you will find that most left handed hitters have some trouble against left handed pitchers simply because they don't get to see enough of the left handers. Here at the University of Arizona I put my best hitters in the game and the left handers are given more batting practice against left handed pitchers than any one else. To platoon in College and High School I think is no good because we don't have that many good players. I will admit that it is harder to hit the ball breaking away from you but the right handed hitters seem to do pretty well against right handed pitchers simply because they see so many right handers. Just give your left handed hitters more practice against left handed pitchers than you would ordinarilly.

Sorry I couldn't help you any.

Sincerely,

Frank Sancet

Frank Sancet
Baseball Coach

VITA

Ralph Robovsky, Jr. was born on September 23, 1936 in Cedar Rapids, Iowa. He attended elementary and senior high school in Cedar Rapids. Upon graduation, he enrolled at Coe College and received his Bachelor of Arts Degree in August, 1959. While in college he lettered in cross-country and baseball. Upon graduation, he taught physical education in Beloit, Wisconsin for one year. The past five years he has been teaching and coaching basketball and track in the junior high school in Roscoe, Illinois. He received his Master of Science in Education Degree in August, 1968 from Eastern Illinois University in Charleston, Illinois.