

Running head: HIGH SCHOOL RUNNING TECHNIQUES

Running Techniques That Yield the Most Successful Results

Among High School Students in Monroe, Washington

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Running Techniques and Strategies That Yield the Most Successful  
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Introduction

*The Problem*

Students today are experiencing more of a sedentary lifestyle than ever before. According to Healthy Weight Journal, “American teens are sadly inactive” (p.83). Along with sedentary lifestyles come increased health risks such as obesity, diabetes, hypertension, osteoarthritis, and other chronic conditions (Crespo, 2003). In fact, childhood obesity has more than doubled over the past 20 years (Lowry, 2002). Besides inactive lifestyles, other factors that have played a role in the obesity problem our nation is facing include: calorie-dense foods, large portion sizes, and excessive television viewing (Bassett, 2004). With the onset of inactive lifestyles comes a depreciation of what it means to live an active and healthy lifestyle. Currently, there is much concern about the decreasing amount of physical activity in adults and children with a corresponding increase in obesity and morbidity and mortality rates (La Vine, 2006). This being said, for some students, the only physical activity they may receive is that which they get during school in their physical education class. Therefore, as an educator, it is my goal to optimize the time spent with students in terms of running potential and opportunities to enjoy and be grateful for the ability and capability to have an active lifestyle. In order to do so, students must take ownership of not only their health but also their education and learn to appreciate and strive for success in school as well as in their personal lifestyle choices.

*Literature Review*

According to Chung (2002), “The U.S. Department of Health and Human Services [U.S. DHHS] (1996) and Sallis and Owen (1999) reported that physically active people live longer and have lower premature death rates than people who are physically inactive and inactivity is one of the primary reasons for losing body functions” (p. 127). Facts About Childhood Obesity and Overweightness (1999) states that, “inactivity and decreased health can lead to serious health concerns including: coronary heart disease, type II diabetes mellitus, hypertension, dyslipidemia, gallbladder disease, respiratory disease, some types of cancer, gout, and arthritis” (p. 52). Thankfully, regular physical activity can improve health related fitness components such as strength, bone density, lower blood pressure, lower body fat, and higher levels of HDL-cholesterol (Chung, 2002). According to Akande, exercise normalizes the brain's stress response and biologically, exercise seems to give the body a chance to practice dealing with stress. Exercise makes human bodies stronger, because it increases the blood supply to our brains. Working out builds the mind's muscles. Some evidence in humans suggests that being physically fit helps people maintain their cognitive abilities as they age (Akande, 2000). Siegel and The Journal of Physical Education, Recreation, and Dance (2006) affirms by stating, “It has been found that physical activity involving moderately intense activity for 30 to 60 minutes, three to seven days a week, are positively associated with a reduction in total body weight and body fat in overweight children and adolescents. Physical activity has the potential to reduce blood pressure in youth with mild hypertension” (p. 11). Since time optimization in the classroom is critical, it is vital to discover which running techniques and strategies, when implemented in the classroom

setting, yield the most successful results in terms of student attitude and improvement. Once a student has discovered what running techniques are most effective for them as an individual and which running techniques they enjoy, it is then the educators' goal to help the student transfer what they have learned in the classroom in terms of physical fitness and activity into lifelong habits for the student to take with them into their post-high school world. One way that physical fitness and activity can be reassigned into daily practice is by using the motivation theory, which states, "that when individuals experience competence, autonomy, and relatedness in a specific context they will be more self-determined in their motivation, and thus more likely to transfer relevant behaviors to other settings" (Cox, 2007).

### *Hypothesis*

Based on previous knowledge, it is my belief that students will perform better and there will be more student improvement when running the mile run than when running the Pacer or the twenty minute pace run. The reason for this is students will put forth enhanced effort and more exertion when given a smaller window of time in which they are running, as with the mile run where the run is complete once the individual has completed four laps around the track. Students running the Pacer or the twenty minute pace run may get bored or tire out quicker than expected, thus resulting in poorer performance and little running improvement. In regards to student attitude, it is my prediction that there will be little or no change that takes place over the course of the semester regarding student perception towards physical fitness.

## Method

### *Participants*

The fifth period Teams Sports and sixth period Step Aerobics physical education classes consisting of 41 participants (17 M; 24 F) at Monroe High School in Monroe, Washington will participate in the survey portion of the data research. In addition, 36 of those same fifth and sixth period physical education students (14 M; 22 F) will participate in the running portion of the research. The discrepancy in number accounts for those five students who were dropped from the running portion of the study due to extensive absences, non-suits, injury, illness or a host of other reasons. While physical education is a graduation requirement, if that prerequisite has already been fulfilled, then the class would be considered an elective for the student. In addition, both of the Team Sports and Step Aerobics classes are coeducational with participants ranging from 9<sup>th</sup> to 12<sup>th</sup> grade.

### *Materials and Instruments*

At the beginning of the semester, each student will complete four different warm-up runs and three different classroom runs. After that has been completed, the teacher conducting the study will administer a survey to all participants getting feedback regarding their thoughts and perception of running. Near the end of the semester, the same running survey will be administered to the participants again to check for any differences in attitude and opinions towards running. In addition, the teacher will keep on file during the semester, a detailed log of each student's run times to check for improvement.

*Design and Procedure*

During the first week of class, the teacher will introduce three different runs that the class will participate in over the course of the semester. The runs being implemented will be the mile run, a twenty minute pace run, and the Pacer run. The mile run consists of students running four laps around the track and recording their run time with their teacher after the four laps have been completed. The twenty minute pace run requires students, to the best of their ability, to pace themselves running around the track for twenty minutes continuously. As students pass the area of the track in which they started the run, they are responsible for saying their last name to class recorders (either the teacher or teacher's assistant, who will then tally a mark by the student's last name on a worksheet provided by the instructor) in order to get credit for their lap. After twenty minutes, the whistle sounds and students have completed the run. The track is divided into 8 even segments and upon completion of the run, students are responsible to report to their recorder where they finished to the nearest eighth. The Pacer run is done indoors to a CD which consists of a series of beeps that students listen to and run line to line before the next beep sounds. Students are responsible for keeping track of their lines, and upon completion, recording total lines completed during the series of beeps to their teacher. Students are done with the Pacer run when they do not reach the next line by the time the CD beeps.

Each week students will participate in one run, making nine runs total for the study, with three weeks of the semester reserved for make-up runs for students who may not have been suited up for PE or who were absent on run days. Throughout the course of the semester, the teacher will be recording running data, analyzing, and charting results

that have taken place in individual student achievement. For the sake of this research project, improvement on student's running performance refers to the students first or initial run score in which data will then be compared against the remainder of the semester when looking for student improvement. After each run has been implemented at least once in the classroom setting, a student survey will then be handed to students to complete in order to get feedback regarding student attitude toward running. The teacher will dissect the results and put them into graph formation. At the end of the semester, after all runs have been completed, students again will be given the same survey to determine if attitude toward running has been impacted positively, negatively, or not at all. Again, results will be charted and graphed to determine differences in attitudes that may have taken place over the course of the semester. The hope is that by determining what runs yield the best student results compared to what runs students have the best attitude toward will help determine what practices to keep in the classroom. In addition, survey results and student feedback will help the instructor determine new types of runs to possibly implement and which running practices to throw out due to ineffectiveness.

### *Findings*

Perhaps the most difficult aspect of doing research in the classroom are those factors in which the researcher cannot control. For example, students move, drop out of school, do not complete runs due to a high amount of non-suits, injury, illness, or do not attend class often enough to be included in the data collection process. Because of this, students had to be dropped from the study throughout the semester. Those factors aside, much was discovered based on student attitude and improved running performance throughout the course of the semester.

In addition to those that were unable to be included in the data collection process, there are many factors that must be taken into account within the action research data collection process as it relates to students' attitude and improvement towards running. As a physical education teacher, my goal is to keep excuses and poor attitude to a minimum while keeping student approach and desire to be physically fit and maintain an active and healthy lifestyle maximized. Throughout the course of the semester, a variety of factors were noted which had an affect, either positive or negative, on student attitude and performance. For example, when the run was social, students tended to perform better. As well, when the weather was poor, even overcast, students did not perform as well and many times, tried to use the weather as an excuse for not wanting to run. However, the opposite was also true where if the weather was nice, student attitude and performance was good. But if the weather was too nice or the temperature too high, it again became a negative factor in student attitude and performance with students claiming that the weather was too hot to run. Other factors that came up throughout the semester were students not feeling well (this generally went for the females) or students recovering from an injury. Perhaps the most dominant factor that came up one day (and this has been witnessed on more than one occasion during my teaching career) took place during a twenty minute pace run day. This phenomenon is what I like to call the Jose Factor (named after the student who started the trend this particular semester in the classroom) and looks similar to this: in one classroom, there was an awesome leader and student athlete who had a pretty intense game of soccer with his team the night before. The next day was the classroom run day and he was feeling very sore and verbalized that he could not perform to the best of his ability on this particular run. He made a pretty big scene



about the fact that he was sore and did not want to run due to his soccer game the previous night. He did this without knowing that what he was saying and how he was behaving was affecting and molding the minds of the other students in the class. With this student being a classroom leader, the whole class fed off of him and decided that they were not in the running mood either. The run turned out very poor in terms of student approach and performance which in turn plays a factor in my data collection and receiving accurate student running information.

In terms of student attitude, based on survey findings, it is clear that the majority of students from both classes that were surveyed believe that music helps them to enjoy their running experience more. As an educator, this information will be used to my advantage and music that students enjoy and that is appropriate will be incorporated into daily lesson plans as often as possible. In addition, over the course of the semester as it relates to student attitude, it appears that students in the fifth period Team Sports class that said they liked running went from 32% down to 16% while those that said it was just okay went from 68% down to 32%. Students in this class also said that running the mile was their favorite classroom run, followed by the Pacer and the twenty minute pace run came in last. As well, for the same fifth period Team Sports class, the amount of students that said they run merely for the grade stayed constant at 16% for both the initial and the final assessment. As well, students who said they did not like running and students who said they loved running stayed constant at 32% and 11% respectively throughout the course of the semester. As for the sixth period Step Aerobics class, those who said they run merely for the social aspect went from 23% to 50% over the semester. Those who said they do not like running at 5% remained constant while those students who said they

loved running went from 5% to 0%. Students in this class ranked the mile and the twenty minute pace run as first followed by the Pacer as their last option for running.

Looking at both Team Sports and Step Aerobics classes combined data, it appears that overall the percentage of students who said they love running went from 7% down to 2%. The three possible explanations I can give for this decrease in running enjoyment among students is that students who took the survey at the beginning of the semester believed that they loved running. However, as the semester went on, the students realized that they did not enjoy running as much as they initially believed they did. The other two explanations for this significant decrease may be that the students did not like a particular running exercise or perhaps the survey was administered on a day where specific students were not enjoying running or vice versa which resulted in skewed survey results. The majority of females in both physical education classes claimed that the social aspect of running was the most important factor in making their workout most enjoyable. Overall, students ranked the three classroom runs in the following order of choice: mile, Pacer, twenty minute pace run. Located in the appendix are graphs broken down by class period and gender as well as combined data in percentages that outlines student attitude over the semester.

Regarding actual student running data, it appears that the fifth period Team Sports class improved the most on their mile from the initial run to the second run. After the initial mile run, the improvement was minimal. In addition, the number of students who improved on all their runs for the semester was highest for the mile run while the number of students who never improved on a run was highest for the twenty minute pace run. As for the sixth period Step Aerobics class, there was one female who remained consistent

throughout the entire semester on her twenty minute pace running. Sixth period Step Aerobics had similar findings to that of the fifth period Team Sports class in that they improved the most on the mile from their initial run to the second run and that the number of students who improved on all the runs was highest in the mile category. Within the mile category for the Step Aerobics class, six females and three males improved on their performance every time they ran. When looking at both Team Sports and Step Aerobics classes combined data for the runs, it appears that the Pacer run had the most students that improved from the first initial run to the third run with little improvement by the classes on the second attempt. As well, in keeping with the data from the individual classes, the mile has the most students in which the majority of improvement was made. Located in the appendix are bar graphs which outline the Team Sports and Step Aerobics classes findings broken down by run, gender, as well as a combination of class results.

### *Conclusions*

After gathering data over the course of four months and analyzing student runs and behavior, there are several general conclusions that can be reached about student attitude, effort, and improvement of running in their physical education class. One major conclusion that was reached by sheer observation of students over the past six months rather than gathered through hard data was the fact that all students are diverse and unique in multiple ways and for a mixture of different reasons. Student upbringing is a major factor in one's perception of physical fitness and lifelong activity. If students are not taught healthy lifestyle patterns or the importance of getting a quality education at home, it can be difficult to transfer over into the classroom where both are needed in the

physical education setting. In addition, classrooms are made up of all different varieties of personalities and dynamics that directly affect the overall mood and feeling of a class. In the physical education setting, there are students who choose to make the most of the time they are given and work hard, there are those who simply do not care, and then there is everyone in between that spectrum. As well, there are students who are athletes and are conditioned for physical fitness while at the same time you have students who do not know how to properly hold a baseball bat. All of these factors mentioned, in addition to a host of other dynamics, play a role in the shaping and molding of student attitude and perception of physical fitness.

While much data has been gathered throughout the course of the semester as it relates to attitude and running improvements of high school students, there is much research to still be done. However, many solid conclusions for my practice have been reached. For instance, it has become apparent to me that the Pacer run is ineffective in producing student improvement. Therefore, the Pacer will only be used when the weather does not allow the class to go outside and run or when there are no other options for running due to track space being taken away for a time. As for the mile, this run will certainly remain a part of the running curriculum but will only be administered three to four times per semester to check for student improvement based upon their twenty minute runs. Although the students do like the mile run, it is my belief that it is liked so well because it is the run that requires the least amount of actual running time for the students. This belief does not agree with my goal of wanting to optimize the time that I have with students. The mile run will only be used to piggy back off the twenty minute pace run.

The reason for this is that in order to make the most of student run and activity time, the twenty minute pace run does this best. Therefore, it has been concluded that the twenty minute pace run will be used each week as the standard for running and for what students will be expected to be able to run. The twenty minute pace run is the most effective run to keep students moving. If students are performing the run properly, by maintaining a consistent running pace, then it will keep the students' heart rate up as well thus getting optimum student performance. The twenty minute pace run makes the best use of time for a weekly student run.

As for my future research, there is still much that I would like to administer in my classroom to see how I can further student success as it relates to student attitude and performance. For instance, this next semester I plan on implementing two additional practices. The first item that is going to be modified in my classroom is how I weight my grades. Currently, weekly runs are worth fifteen percent of a student's grade. Next semester, weekly runs will be worth twenty-five percent of a student's grade. It is my hope that students will learn to take ownership of their grade and their health. My goal in doing this is to see if changing the percentage of a run grade is a student motivator for improved running scores and ultimately would result in overall positive health and activity lifestyle changes. The second practice that will be changing in the classroom is that I would like to incorporate more "fun runs" for the students. If the class has been working hard and doing well on their twenty minute pace runs, then I would like to administer some relay partner runs or possibly off campus runs. As well, I would like to incorporate a walk-jog-sprint run where students either walk, jog, or sprint a designated area of the track. The last run that I would like to implement next semester into the

classroom is an extra credit run where the students will pace run around the track for twenty minutes and for each lap they complete, they will get two points extra credit. This run would only be offered a maximum of two times per semester and will be based on classroom attitude, effort, and participation as a whole. In addition, this run will not be introduced until halfway through the semester at the earliest. My goal by incorporating this is to implement activities that students have a good attitude toward, that they enjoy, and that they are successful at in order to break out of the mundane repetition of running the track. As well, and this started near the end of last semester, I would like to play music out on the track on our school's loud speakers for all to hear so that if students do not have music they can bring from home, then there is something for them to listen to and to be motivated by. The reason that I would like to administer these different runs and practices is to create some novelty in the classroom. All too often students can get into a running rut and my goal is to keep them guessing and actively participating while learning to enjoy what it means to live an active and healthy lifestyle.

It is my goal, as a young educator, to constantly be revolutionizing and improving upon my teaching practice. I want to discover what I can do to mentor, motivate, and encourage students to succeed and live to a higher standard of health and well-being for themselves. With the education and knowledge I possess, I want it to be beneficial in the molding and shaping of my young students' minds. With my goal being to take the physical education practices my students' have discovered and turn them into lifelong habits thus creating fruitful members of society. However, this can only be done once I know what motivates adolescents to a higher order of thinking and administration. I

believe the research that has been presented in this project helps to chip away the tip of the iceberg when it comes to discovering and putting into practice techniques that will encourage and shape the youth of our country.

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# Running Survey

1. **Are you:** (circle one)                      Male                      Female
2. **Do you like running?** (circle one)                      YES                      SOMETIMES                      NO
3. **On a scale of 1 to 5 rate how much you like running:** (circle a number)
- 1-----2-----3-----4-----5  
 hate it                                      it's okay                                      love it
4. **Rank 1 to 4 (one being your favorite, 4 being your least favorite) your favorite warm-up run:**
- \_\_\_\_\_ tag games
- \_\_\_\_\_ running a lap
- \_\_\_\_\_ running stairs/lines
- \_\_\_\_\_ running 4 minutes in the gym
5. **Rank 1 to 3 (one being your favorite, 3 being your least favorite) your favorite class run:**
- \_\_\_\_\_ 20 minute pace run
- \_\_\_\_\_ Pacer
- \_\_\_\_\_ one mile run
6. **What keeps you running?** (circle one or write in your own answer)
- When it is social
- Knowing I am getting a workout/it is good for me
- Getting a good grade
- Nothing is fun about running
- Other: \_\_\_\_\_
7. **Does music help you to enjoy running more?** (circle one) YES                      SOMETIMES                      NO

Running Survey Results- First Assessment

Team Sports- 5<sup>th</sup> period

Males: 12

Females: 7

Total: 19

Question	#F	%	#M	%	Total %
1. Do you like running? (Yes)	4	57%	2	17%	32%
1. Do you like running? (Sometimes)	2	29%	5	42%	37%
1. Do you like running? (No)	1	14%	5	42%	32%
2. Scale 1-5 Rank Running (1 hate, 5 love) (1)	0	0%	2	17%	11%
2. Scale 1-5 Rank Running (1 hate, 5 love) (2)	0	0%	1	8%	5%
2. Scale 1-5 Rank Running (1 hate, 5 love) (3)	5	71%	8	67%	68%
2. Scale 1-5 Rank Running (1 hate, 5 love) (4)	1	14%	0	0%	5%
2. Scale 1-5 Rank Running (1 hate, 5 love) (5)	1	14%	1	8%	11%
3. Ranking warm-ups (tag games)	1-4 2-2 4-2	1- 57% 2- 29% 4- 29%	1-7 2-2 4-3	1- 58% 2- 17% 4- 25%	1- 58% 2- 21% 4- 26%
3. Ranking warm-ups (1 lap)	1-2 2-0 3-3 4-2	1- 29% 2- 0% 3- 43% 4- 29%	1-3 2-7 3-1 4-1	1- 25% 2- 58% 3- 8% 4- 8%	1- 26% 2- 37% 3- 21% 4- 16%
3. Ranking warm-ups (stairs)	1-1 2-1 3-3 4-2	1- 14% 2- 14% 3- 43% 4- 29%	1-0 2-1 3-3 4-8	1- 0% 2- 8% 3- 25% 4- 67%	1- 5% 2- 11% 3- 32% 4- 53%
3. Ranking warm-ups (4 minutes)	1-1 2-4 3-1 4-1	1- 14% 2- 57% 3- 14% 4- 14%	1-2 2-2 3-7 4-1	1- 17% 2- 17% 3- 58% 4- 8%	1- 16% 2- 32% 3- 42% 4- 11%
4. Ranking class runs (20 min)	1-2 2-3 3-2	1- 29% 2- 43% 3- 29%	1-3 2-3 3-6	1- 25% 2- 25% 3- 50%	1- 26% 2- 32% 3- 42%
4. Ranking class runs (Pacer)	1-4 2-2 3-1	1- 57% 2- 29% 3- 14%	1-1 2-7 3-4	1- 8% 2- 58% 3- 33%	1- 26% 2- 47% 3- 26%
4. Ranking class runs (1 mile)	1-1 2-2 3-4	1- 14% 2- 29% 3- 57%	1-9 2-2 3-1	1- 75% 2- 17% 3- 8%	1- 53% 2- 21% 3- 26%
5. What keeps you running? (social)	2	29%	3	25%	26%
5. What keeps you running? (workout)	3	43%	4	33%	37%
5. What keeps you running? (grade)	0	0%	3	25%	16%
5. What keeps you running? (nothing)	0	0%	2	17%	11%
5. What keeps you running? (other)	2	29%	0	0%	11%
6. Does music help you enjoy running more? (Yes)	5	71%	12	100%	89%
6. Does music help you enjoy running more? (Sometimes)	0	0%	0	0%	0%
6. Does music help you enjoy running more? (No)	2	29%	0	0%	11%

Running Survey Results- First Assessment

Step Aerobics- 6<sup>th</sup> period

Males: 5

Females: 17

Total: 22

Question	#F	%	#M	%	Total %
1. Do you like running? (Yes)	3	18%	0	0%	14%
1. Do you like running? (Sometimes)	12	71%	3	60%	68%
1. Do you like running? (No)	2	12%	2	40%	18%
2. Scale 1-5 Rank Running (1 hate, 5 love) (1)	1	6%	0	0%	5%
2. Scale 1-5 Rank Running (1 hate, 5 love) (2)	5	29%	3	60%	36%
2. Scale 1-5 Rank Running (1 hate, 5 love) (3)	8	47%	1	20%	41%
2. Scale 1-5 Rank Running (1 hate, 5 love) (4)	2	12%	1	20%	14%
2. Scale 1-5 Rank Running (1 hate, 5 love) (5)	1	6%	0	0%	5%
3. Ranking warm-ups (tag games)	1-10 2-1 3-2 4-4	1- 59% 2- 6% 3- 12% 4- 24%	1-2 2-1 3-2 4-0	1- 40% 2- 20% 3- 40% 4- 0%	1- 55% 2- 9% 3- 18% 4- 18%
3. Ranking warm-ups (1 lap)	1-6 2-9 3-1 4-1	1- 35% 2- 53% 3- 6% 4- 6%	1-2 2-3 3-0 4-0	1- 40% 2- 60% 3- 0% 4- 0%	1- 36% 2- 55% 3- 5% 4- 5%
3. Ranking warm-ups (lines)	1-0 2-3 3-5 4-9	1- 0% 2- 18% 3- 29% 4- 53%	1-1 2-0 3-2 4-2	1- 20% 2- 0% 3- 40% 4- 40%	1- 5% 2- 17% 3- 32% 4- 50%
3. Ranking warm-ups (4 minutes)	1-1 2-4 3-9 4-3	1- 6% 2- 24% 3- 53% 4- 18%	1-0 2-1 3-1 4-3	1- 0% 2- 20% 3- 20% 4- 60%	1- 5% 2- 23% 3- 45% 4- 27%
4. Ranking class runs (20 min)	1-6 2-4 3-7	1- 35% 2- 24% 3- 41%	1-0 2-2 3-3	1- 0% 2- 40% 3- 60%	1- 27% 2- 27% 3- 45%
4. Ranking class runs (Pacer)	1-4 2-3 3-10	1- 24% 2- 18% 3- 59%	1-0 2-3 3-2	1- 0% 2- 60% 3- 40%	1- 18% 2- 27% 3- 55%
4. Ranking class runs (1 mile)	1-7 2-10 3-0	1- 41% 2- 59% 3- 0%	1-5 2-0 3-0	1- 100% 2- 0% 3- 0%	1- 55% 2- 45% 3- 0%
5. What keeps you running? (social)	5	29%	0	0%	23%
5. What keeps you running? (workout)	5	29%	2	40%	32%
5. What keeps you running? (grade)	2	12%	0	0%	9%
5. What keeps you running? (nothing)	3	18%	2	40%	23%
5. What keeps you running? (other)	2 (music)	12%	1 (music)	20%	14%
6. Does music help you enjoy running more? (Yes)	14	82%	4	80%	82%
6. Does music help you enjoy running more? (Sometimes)	2	12%	1	20%	14%
6. Does music help you enjoy running more? (No)	1	6%	0	0%	5%

Running Survey Results- First Assessment

Total Results from both classes

Females: 24

Males: 17

Total: 41 students

Question	#F	%	#M	%	Total %
1. Do you like running? (Yes)	7	29%	2	12%	22%
1. Do you like running? (Sometimes)	14	58%	8	47%	54%
1. Do you like running? (No)	3	13%	7	41%	24%
2. Scale 1-5 Rank Running (1 hate, 5 love) (1)	1	4%	2	12%	7%
2. Scale 1-5 Rank Running (1 hate, 5 love) (2)	5	21%	4	24%	22%
2. Scale 1-5 Rank Running (1 hate, 5 love) (3)	13	54%	9	53%	54%
2. Scale 1-5 Rank Running (1 hate, 5 love) (4)	3	13%	1	6%	10%
2. Scale 1-5 Rank Running (1 hate, 5 love) (5)	2	8%	1	6%	7%
3. Ranking warm-ups (tag games)	1-14 2-3 3-2 4-6	1-58% 2-13% 3-8% 4-25%	1-9 2-3 3-2 4-3	1-53% 2-18% 3-12% 4-18%	1-56% 2-15% 3-10% 4-22%
3. Ranking warm-ups (1 lap)	1-8 2-9 3-4 4-3	1-33% 2-38% 3-17% 4-13%	1-9 2-10 3-1 4-1	1-53% 2-59% 3-6% 4-6%	1-41% 2-46% 3-12% 4-10%
3. Ranking warm-ups (stairs)	n/a	n/a	n/a	n/a	n/a
3. Ranking warm-ups (4 minutes)	1-2 2-8 3-10 4-4	1-8% 2-33% 3-42% 4-17%	1-2 2-3 3-8 4-4	1-12% 2-18% 3-47% 4-24%	1-10% 2-27% 3-44% 4-20%
4. Ranking class runs (20 min)	1-8 2-7 3-9	1-33% 2-29% 3-38%	1-3 2-5 3-9	1-18% 2-29% 3-53%	1-27% 2-29% 3-44%
4. Ranking class runs (Pacer)	1-8 2-5 3-11	1-33% 2-21% 3-46%	1-1 2-10 3-6	1-6% 2-59% 3-35%	1-22% 2-37% 3-41%
4. Ranking class runs (1 mile)	1-8 2-12 3-4	1-33% 2-50% 3-17%	1-14 2-2 3-1	1-82% 2-12% 3-6%	1-54% 2-34% 3-12%
5. What keeps you running? (social)	7	29%	3	18%	24%
5. What keeps you running? (workout)	8	33%	6	35%	34%
5. What keeps you running? (grade)	2	8%	3	18%	12%
5. What keeps you running? (nothing)	3	13%	4	24%	17%
5. What keeps you running? (other)	4	17%	1	6%	12%
6. Does music help you enjoy running more? (Yes)	19	79%	16	94%	85%
6. Does music help you enjoy running more? (Sometimes)	2	8%	1	6%	7%
6. Does music help you enjoy running more? (No)	3	13%	0	0%	7%

Running Survey Results- Last Assessment

5<sup>th</sup> period- Team Sports

Males: 12

Females: 7

Total: 19 students

Question	#F	%	#M	%	Total %
1. Do you like running? (Yes)	1	14%	2	17%	16%
1. Do you like running? (sometimes)	5	71%	5	42%	53%
1. Do you like running? (No)	1	14%	5	42%	32%
2. Scale 1-5 Rank Running (1 hate, 5 love) (1)	1	14%	1	8%	11%
2. Scale 1-5 Rank Running (1 hate, 5 love) (2)	1	14%	4	33%	26%
2. Scale 1-5 Rank Running (1 hate, 5 love) (3)	3	43%	3	25%	32%
2. Scale 1-5 Rank Running (1 hate, 5 love) (4)	1	14%	4	33%	26%
2. Scale 1-5 Rank Running (1 hate, 5 love) (5)	1	14%	0	0%	5%
3. Ranking warm-ups (tag games)	1-3 2-0 3-0 4-4	1- 43% 2- 0% 3- 0% 4- 57%	1-7 2-2 3-0 4-3	1- 58% 2- 17% 3- 0% 4- 25%	1- 53% 2- 11% 3- 0% 4- 37%
3. Ranking warm-ups (1 lap)	1-2 2-2 3-3 4-0	1- 29% 2- 29% 3- 43% 4- 0%	1-3 2-5 3-2 4-2	1- 25% 2- 42% 3- 17% 4- 17%	1- 26% 2- 37% 3- 26% 4- 11%
3. Ranking warm-ups (stairs)	1-1 2-1 3-2 4-3	1- 14% 2- 14% 3- 29% 4- 43%	1-1 2-4 3-3 4-4	1- 8% 2- 33% 3- 25% 4- 33%	1- 11% 2- 26% 3- 26% 4- 37%
3. Ranking warm-ups (4 minutes)	1-1 2-4 3-2 4-0	1- 14% 2- 57% 3- 29% 4- 0%	1-1 2-1 3-7 4-3	1- 8% 2- 8% 3- 58% 4- 25%	1- 11% 2- 26% 3- 47% 4- 16%
4. Ranking class runs (20 min)	1-0 2-2 3-5	1- 0% 2- 29% 3- 71%	1-0 2-6 3-6	1-0% 2-50% 3-50%	1- 0% 2- 42% 3- 58%
4. Ranking class runs (Pacer)	1-3 2-3 3-1	1- 43% 2- 43% 3- 14%	1-4 2-3 3-5	1- 33% 2- 25% 3- 42%	1- 37% 2- 32% 3- 32%
4. Ranking class runs (1 mile)	1-4 2-2 3-1	1- 57% 2- 29% 3- 14%	1-8 2-3 3-1	1- 67% 2- 25% 3- 8%	1- 63% 2- 26% 3- 11%
5. What keeps you running? (social)	2	29%	3	25%	26%
5. What keeps you running? (workout)	2	29%	2	17%	21%
5. What keeps you running? (grade)	1	14%	2	17%	16%
5. What keeps you running? (nothing)	2	29%	2	17%	21%
5. What keeps you running? (other)	0	0%	3- trying to beat my last time, soccer, music	25%	16%
6. Does music help you enjoy running more? (Yes)	5	71%	10	83%	79%
6. Does music help you enjoy running more? (Sometimes)	1	14%	2	17%	16%
6. Does music help you enjoy running	1	14%	0	0%	5%

Running Survey Results- Last Assessment

6<sup>th</sup> period- Step Aerobics  
 Males: 5 Females: 17 Total: 22 students

Question	#F	%	#M	%	Total %
1. Do you like running? (Yes)	2	12%	0	0%	9%
1. Do you like running? (sometimes)	11	65%	3	60%	67%
1. Do you like running? (No)	4	24%	2	40%	27%
2. Scale 1-5 Rank Running (1 hate, 5 love) (1)	1	6%	0	0%	5%
2. Scale 1-5 Rank Running (1 hate, 5 love) (2)	7	41%	4	80%	50%
2. Scale 1-5 Rank Running (1 hate, 5 love) (3)	5	29%	1	20%	27%
2. Scale 1-5 Rank Running (1 hate, 5 love) (4)	4	24%	0	0%	18%
2. Scale 1-5 Rank Running (1 hate, 5 love) (5)	0	0%	0	0%	0%
3. Ranking warm-ups (tag games)	1-5 2-7 3-0 4-5	1- 29% 2- 41% 3- 0% 4- 29%	1-3 2-1 3-1 4-0	1- 60% 2- 20% 3- 20% 4- 0%	1- 36% 2- 36% 3- 5% 4- 18%
3. Ranking warm-ups (1 lap)	1-12 2-3 3-2 4-0	1- 71% 2- 18% 3- 12% 4- 0%	1-2 2-3 3-0 4-0	1- 40% 2- 60% 3- 0% 4- 0%	1- 67% 2- 27% 3- 9% 4- 0%
3. Ranking warm-ups (lines)	1-0 2-0 3-0 4-17	1-0% 2-0% 3-0% 4-100%	1-0 2-0 3-0 4-5	1-0% 2-0% 3-0% 4-100%	1- 0% 2- 0% 3- 0% 4- 100%
3. Ranking warm-ups (4 minutes)	1-0 2-7 3-10 4-0	1- 0% 2- 41% 3- 59% 4- 0%	1-0 2-1 3-4 4-0	1- 0% 2- 20% 3- 80% 4- 0%	1- 0% 2- 36% 3- 67% 4- 0%
4. Ranking class runs (20 min)	1-8 2-3 3-6	1- 47% 2- 18% 3- 35%	1-0 2-2 3-3	1- 0% 2- 40% 3- 60%	1- 36% 2- 23% 3- 41%
4. Ranking class runs (Pacer)	1-5 2-6 3-6	1- 29% 2- 35% 3- 35%	1-1 2-2 3-2	1- 20% 2- 40% 3- 40%	1- 27% 2- 36% 3- 36%
4. Ranking class runs (1 mile)	1-4 2-8 3-5	1- 24% 2- 47% 3- 29%	1-4 2-1 3-0	1- 80% 2- 20% 3- 0%	1- 36% 2- 41% 3- 23%
5. What keeps you running? (social)	10	59%	1	20%	50%
5. What keeps you running? (workout)	5	29%	1	20%	27%
5. What keeps you running? (grade)	1	6%	1	20%	9%
5. What keeps you running? (nothing)	1	6%	1	20%	9%
5. What keeps you running? (other)	0	0%	1- music	20%	5%
6. Does music help you enjoy running more? (Yes)	14	82%	3	60%	77%
6. Does music help you enjoy running more? (Sometimes)	3	18%	2	40%	23%
6. Does music help you enjoy running more? (No)	0	0%	0	0%	0%

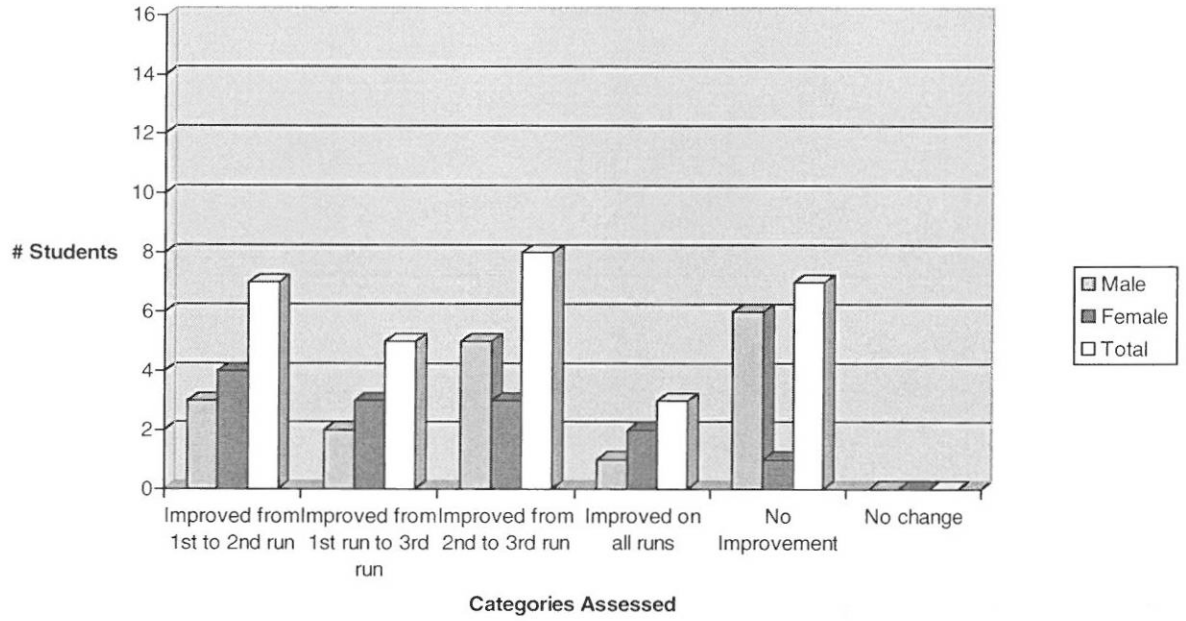
Running Survey Results- Last Assessment

Total Results from both classes  
 Males: 17 Females: 24 Total: 41 students

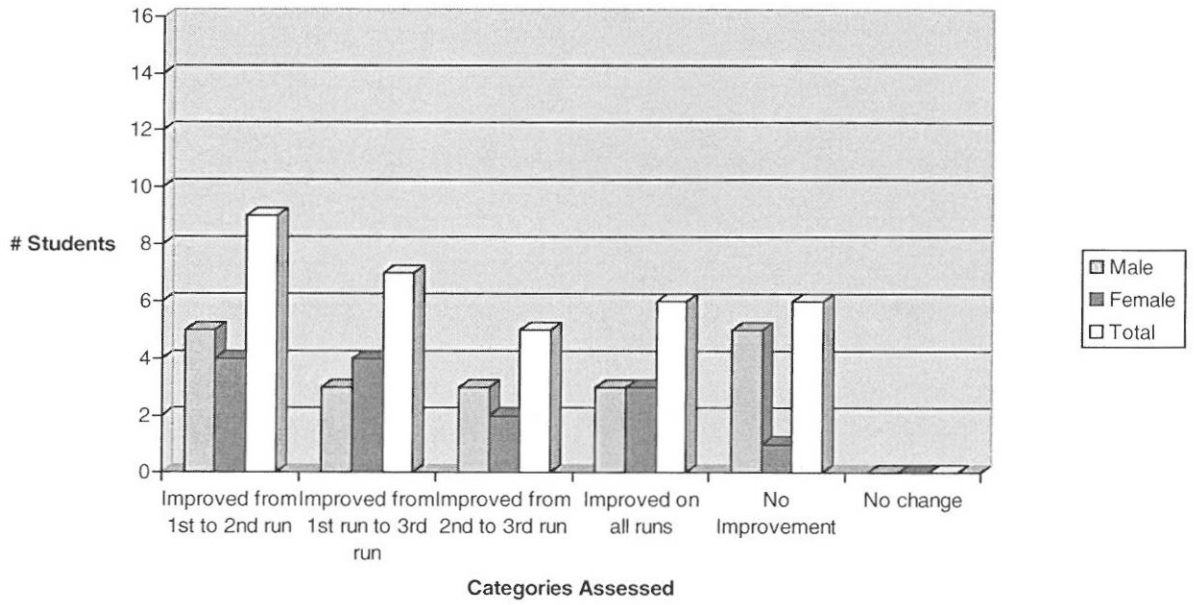
Question	#F	%	#M	%	Total %
1. Do you like running? (Yes)	3	13%	2	12%	12%
1. Do you like running? (sometimes)	16	67%	8	47%	59%
1. Do you like running? (No)	5	21%	7	41%	29%
2. Scale 1-5 Rank Running (1 hate, 5 love) (1)	2	8%	1	6%	7%
2. Scale 1-5 Rank Running (1 hate, 5 love) (2)	8	33%	8	47%	39%
2. Scale 1-5 Rank Running (1 hate, 5 love) (3)	8	33%	4	24%	29%
2. Scale 1-5 Rank Running (1 hate, 5 love) (4)	5	21%	4	24%	22%
2. Scale 1-5 Rank Running (1 hate, 5 love) (5)	1	4%	0	0%	2%
3. Ranking warm-ups (tag games)	1- 8 2- 7 3- 0 4- 9	1- 33% 2- 29% 3- 0% 4- 38%	1- 10 2- 3 3- 1 4- 3	1- 59% 2- 18% 3- 6% 4- 18%	1- 44% 2- 24% 3- 1% 4- 29%
3. Ranking warm-ups (1 lap)	1- 14 2- 5 3- 5 4- 0	1- 58% 2- 21% 3- 21% 4- 0%	1- 5 2- 8 3- 2 4- 2	1- 29% 2- 47% 3- 12% 4- 12%	1- 46% 2- 32% 3- 17% 4- 5%
3. Ranking warm-ups (stairs/lines)	1- 1 2- 1 3- 2 4- 20	1- 4% 2- 4% 3- 8% 4- 83%	1- 1 2- 4 3- 3 4- 9	1- 6% 2- 24% 3- 18% 4- 53%	1- 5% 2- 12% 3- 12% 4- 71%
3. Ranking warm-ups (4 minutes)	1- 1 2- 11 3- 12 4- 0	1- 4% 2- 46% 3- 50% 4- 0%	1- 1 2- 2 3- 11 4- 3	1- 6% 2- 12% 3- 65% 4- 18%	1- 5% 2- 32% 3- 56% 4- 7%
4. Ranking class runs (20 min)	1- 8 2- 5 3- 11	1- 33% 2- 21% 3- 46%	1- 0 2- 8 3- 9	1- 0% 2- 47% 3- 53%	1- 20% 2- 32% 3- 49%
4. Ranking class runs (Pacer)	1- 8 2- 9 3- 7	1- 33% 2- 38% 3- 29%	1- 5 2- 5 3- 7	1- 29% 2- 29% 3- 41%	1- 32% 2- 34% 3- 34%
4. Ranking class runs (1 mile)	1- 8 2- 10 3- 6	1- 33% 2- 42% 3- 25%	1- 12 2- 4 3- 1	1- 71% 2- 24% 3- 6%	1- 49% 2- 34% 3- 17%
5. What keeps you running? (social)	12	50%	4	24%	39%
5. What keeps you running? (workout)	7	29%	3	18%	24%
5. What keeps you running? (grade)	2	8%	3	18%	12%
5. What keeps you running? (nothing)	3	13%	3	18%	15%
5. What keeps you running? (other)	0	0%	4	24%	10%
6. Does music help you enjoy running more? (Yes)	19	79%	13	76%	78%
6. Does music help you enjoy running more? (Sometimes)	4	17%	4	24%	20%
6. Does music help you enjoy running more? (No)	1	4%	0	0%	2%



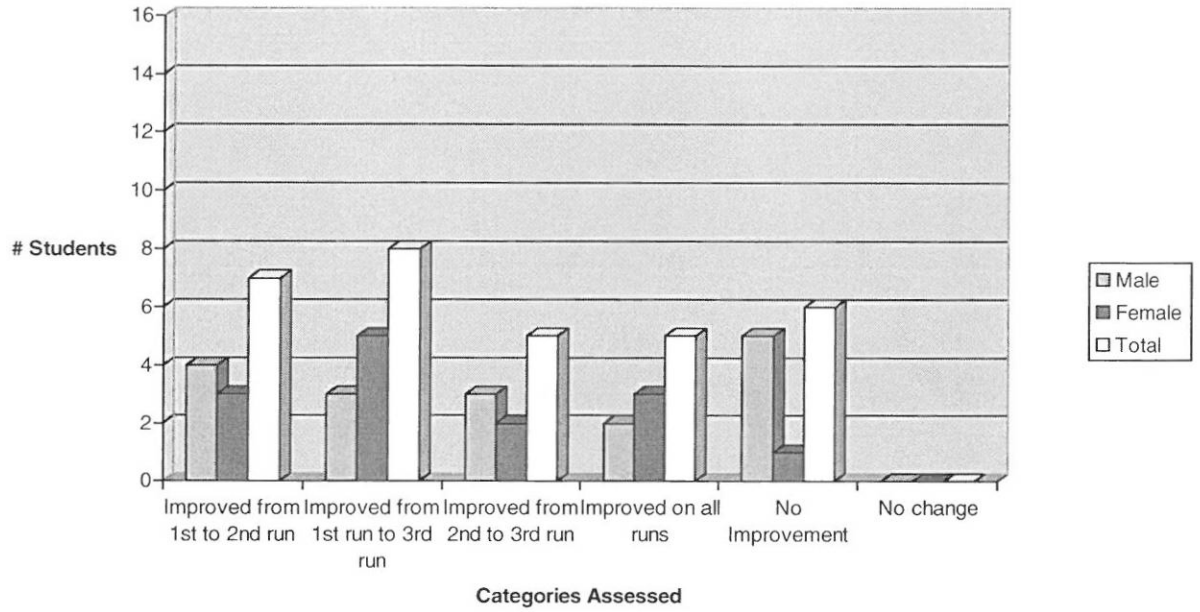
5th Period 20 Minute Relay Run Results



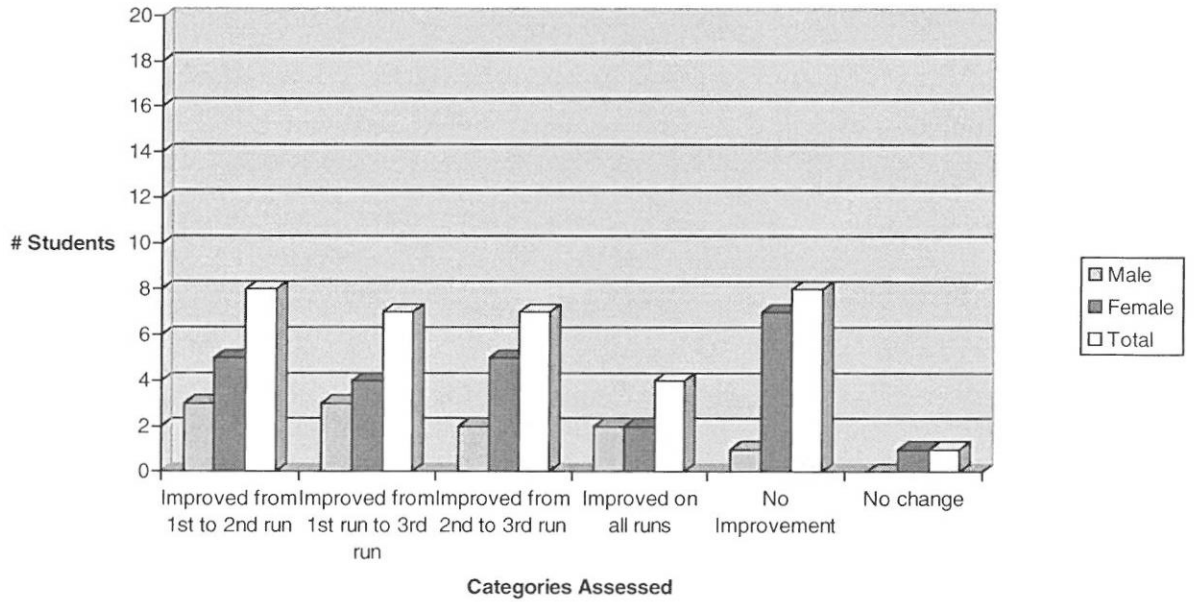
5th Period Mile Run Results



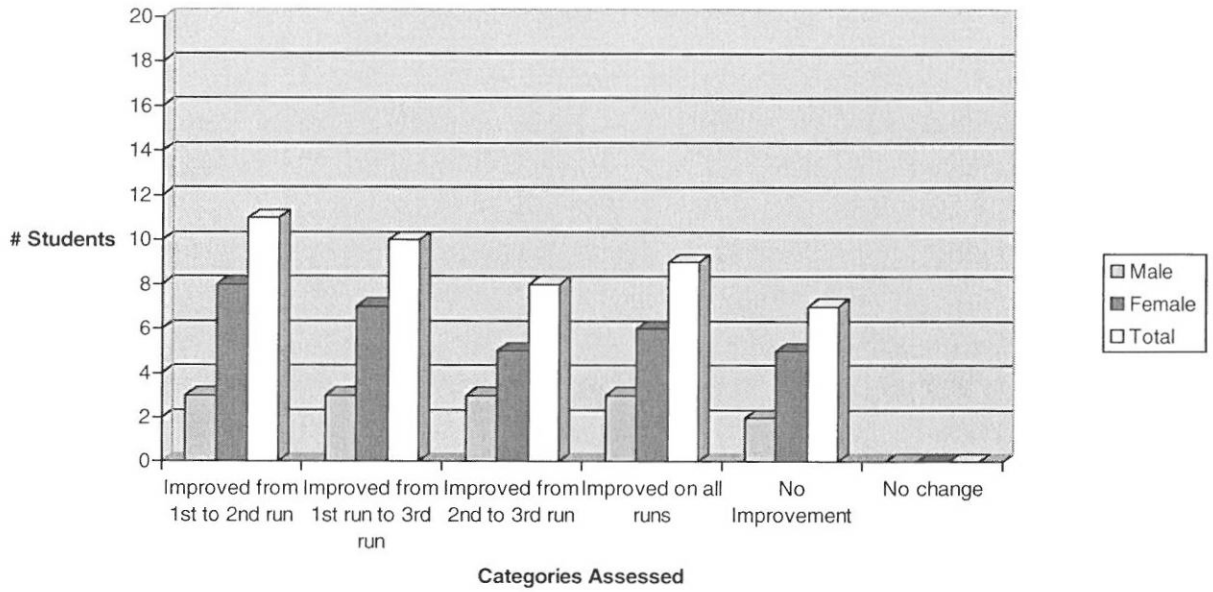
5th Period Pacer Run Results



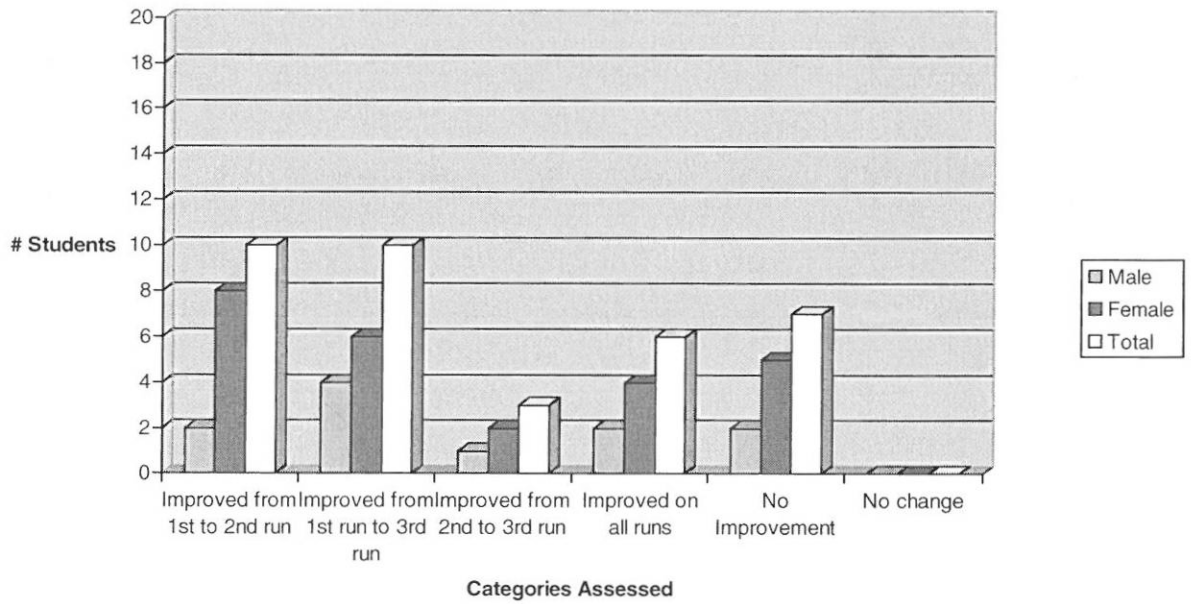
6th Period 20 Minute Relay Run Results



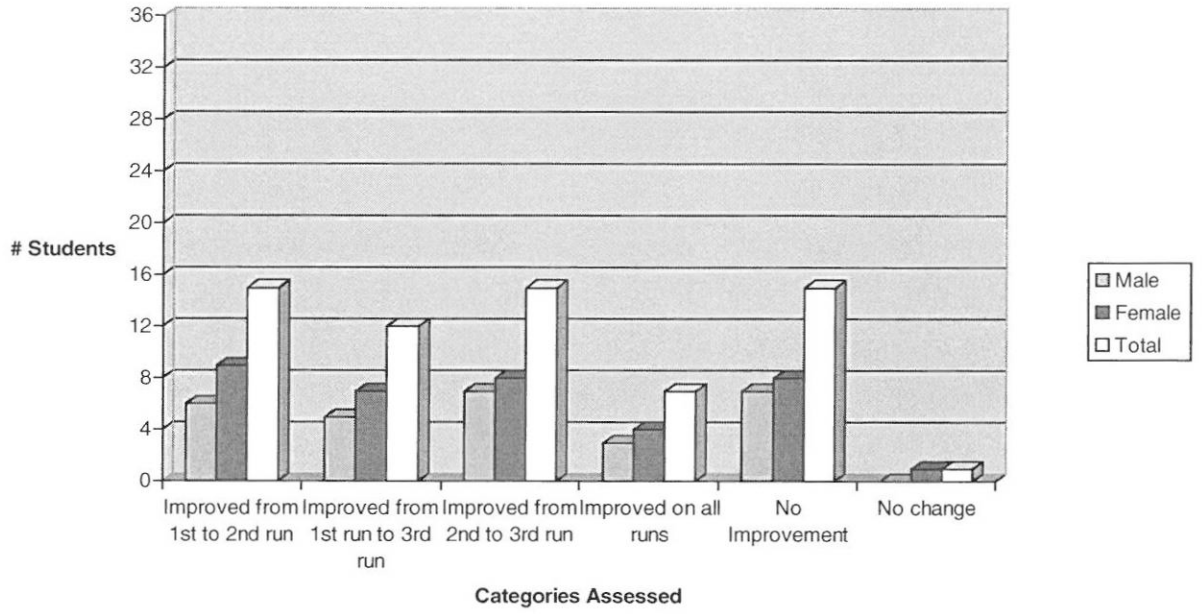
6th Period Mile Run Results



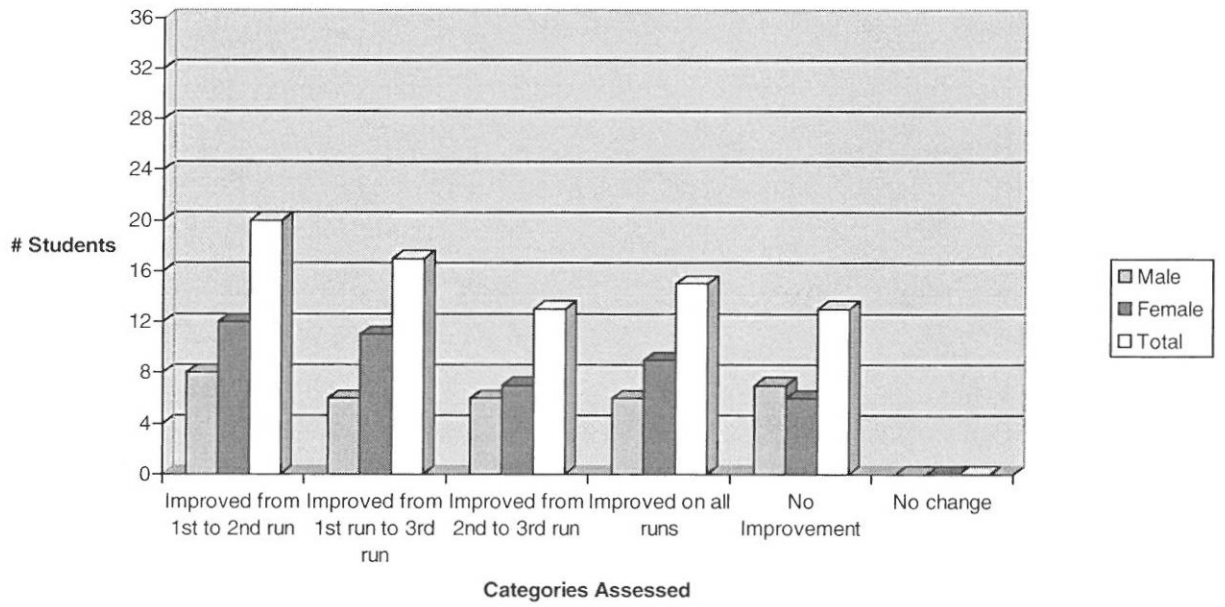
6th Period Pacer Run Results



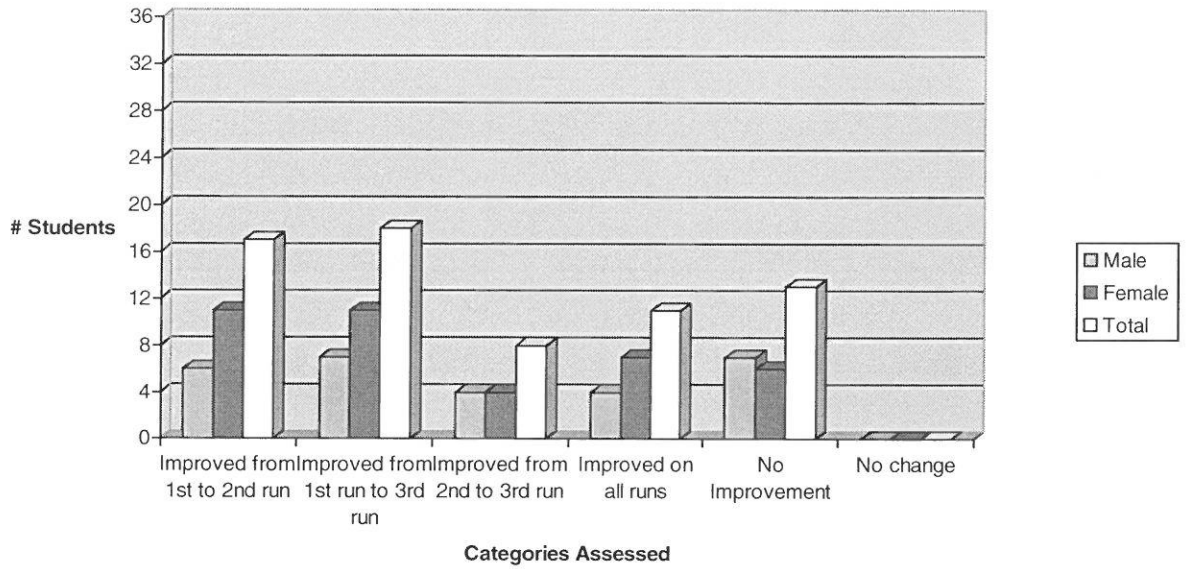
**Combined Classes 20 Minute Relay Run Results**



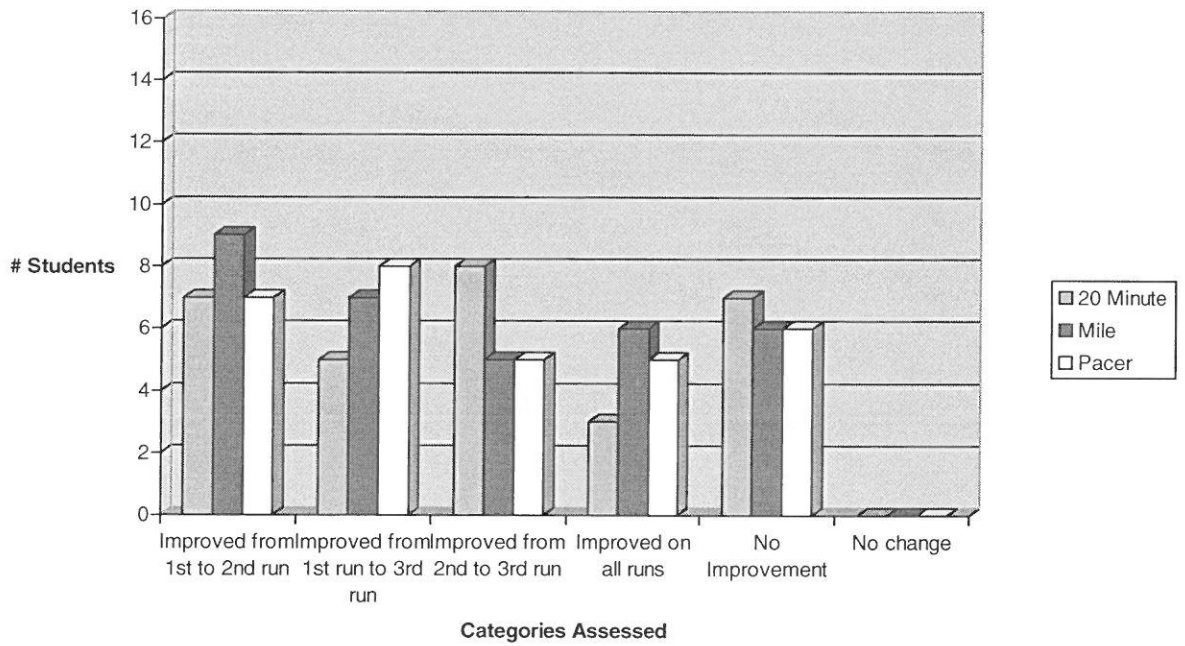
**Combined Classes Mile Run Results**



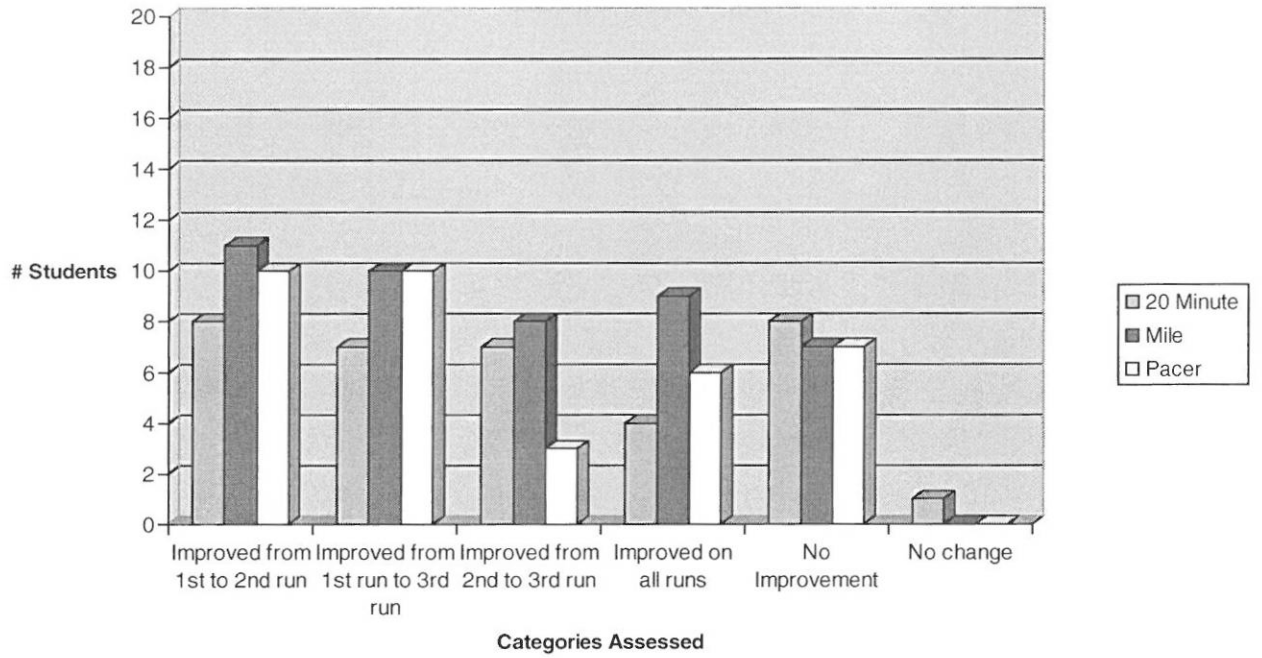
**Combined Classes Pacer Run Results**



**5th Period Results (by run)**



6th Period Results (by run)



Combined Classes Total Results (by run)

